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Joy Bergelson, Ph.D., assistant professor of biology at Washington University, cross-pollinates transgenic *Arabidopsis* plants in the University's Jeanette Goldfarb Plant Growth Facility.

Ecologist Joy Bergelson shows Super Weed invasion unlikely

To some, it's their worst nightmare: A weed accidentally crossbreeds with a transgenic (genetically manipulated) crop and becomes transformed into a Super Weed. The Super Weed propagates into a vast community of Super Weeds, and Mother Nature's famed "balance" goes haywire.

Several dire possibilities immediately surface: One, the Super Weeds (resistant to, say, an herbicide) would out-compete the crops, reducing crop yield; two, the Super Weeds would invade other natural areas, such as prairies, forests and wetlands, severely upsetting those ecosystems; and three, the Super Weeds would become the incarnation of the "Eggplant That Ate Chicago" and completely overrun everything.

While the scenarios range from the possible to the absurd, there have been no studies to explore these possibilities, nor have the situations been tested by the U.S. Department of Agriculture's Animal Plant Health Inspection Service (USDA-APHIS). This branch of USDA regulates the research protocols of transgenic plants, among its other functions. Its Biotechnology Risk Assessment Protocols suggest measuring the effects of a newly introduced gene on crops but not on weeds.

But now in a novel study of both herbicide-resistant and herbicide-susceptible weeds, which differ from each other by just one gene, Joy Bergelson, Ph.D., assistant professor of biology, has shown that the resistant weeds actually produce fewer seeds than the susceptible plants. Then, to assess the likelihood of "the invasion of the Super Weeds," she discovered that the resistant plants were no more nor less invasive than susceptible

ones, despite their lessened ability to produce seeds.

Seed output

Her study breaks the assumed ecological link between seed number and population growth and suggests that the spread of a weed cannot be predicted on seed production only. Instead, a number of factors, competitions, stresses, availability of space and the physiological cost of expressing resistance, must be considered in assessing the potential of "Super Weeds."

"I wanted to determine if the reduction in seed output would translate into a reduction in population growth, as most bio-practitioners assume," said Bergelson. "My results show this link is not strong. There was no difference in the spread of populations, giving little reason to believe that a weed problem will follow simply because seed output is enhanced. The likelihood of a super-tough, unradicated weed is not high. But I say this with caution, because a lot depends on what gene is put into the plant."

Bergelson's paper, "Spread of Transgenic Weeds With Resistance to Herbicides," is published in the proceedings from the conference on "Risk Assessment for Environmental Releases of Biotechnology Products," held by the American Society of Environmental Biologists in June 1993.

Transgenic plants are expected to revolutionize agriculture in the next two decades, theoretically allowing farmers to grow crops that will protect themselves without the risk of excessive chemical use, which is costly and environmentally risky. So, those in agriculture are eager to see how physiologically fit the transgenics are. Some environ-

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Meeting challenges

Danforth urges staff to work smarter, be flexible

In a series of staff meetings held in Simon Hall over the past two weeks, Chancellor William H. Danforth emphasized the need to be flexible and "work smarter" to help the University meet the challenges of the 1990s.

In recent years, the Washington University community has done "a terrific job" responding to the many challenges facing higher education, Danforth said.

"We have been helped by expanding budgets. Today, while the challenges continue, budgets are tight," Danforth said. "We have been spared some of the problems other universities are facing. We've budgeted carefully and tried to take steps to prevent major problems. That's why I am here. To tell you what I know and to enlist your help in meeting today's challenges."

In keeping with his medical background, the former physician urged the staff to comply with preventative measures to keep the University healthy and strong.

"Sometimes the staff may seem less visible than the faculty and students, but Washington University couldn't run without you, no more than it could without students or without faculty," he continued.

Washington University, like most institutions of higher education, is facing challenges from several fronts. Expectations of students, parents, faculty, staff, the public and the federal government are increasing faster than are resources.

"The days of spending more and more money are behind us," Danforth said. "We are not in crisis. There are no plans for massive lay-offs or cutbacks. We cannot just add more people and programs or ask our people to work twice as hard or twice as long. We can work smarter and more wisely."

The University Management Team, a group of about 75 managers from the Central Fiscal Unit and deans from the schools, has been meeting regularly on Monday mornings for about a year to find ways to improve services and reduce costs by working smarter. Danforth said the team was inspired by the 1992 Presidential

Debate, when the entire campus worked across departmental and hierarchical lines to contribute to the success of the historic event.

"Many people who had never met before are now working together to find solutions to these challenges," Danforth said. "I don't know the answers. The provost doesn't know. The department heads don't know. We need everyone's ideas."

Carol Kwasny, assistant University registrar, said she left the staff meeting feeling "excited, challenged and reassured."

"It was reassuring to folks who had heard about his (Danforth's) retirement and the University's fiscal problems," Kwasny said. "I find these to be exciting times as we try to become more efficient, use new technologies and learn new, better ways of doing things. I see it as a challenge to get involved, to get out of the normal routine and communicate between departments."

To reach as many people as possible, the management team has broken down into smaller groups, or clusters, which, in turn, have formed focus groups to listen to students, faculty, staff, parents and others to find out what is working and what is not working. With this input, the management team is better prepared to find solutions to the challenges facing the University, including its biggest challenge — change.

"Our biggest challenge is to continue to be a leader in a time of rapid change," Danforth said. "The world is changing. Jobs are changing. The work I do today is vastly different from the first day I was chancellor. Flexibility in times of change is very important. All of us can think about upgrading skills, moving into different roles as individuals retire or leave the University for new jobs or new challenges."

Unlike many corporations that have an "out-placement" committee to deal with job placement, Washington University has formed an "in-placement" committee that is developing strategies to fill positions that open due to normal attrition with qualified people already employed at the University.

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Committee approves parking fees through 1997

Parking fees on the Hilltop Campus next year will go up between \$5 and \$20 depending on the type of permit. Jean Gaines, chair of the Transportation Advisory Committee, said these rates were announced two years ago in keeping with the University's practice of announcing rate increases several years in advance. The rates were reviewed by the 15-member committee made up of staff, faculty and students.

Prices for the 1994-95 school year will be: \$430 for red permits; \$250 for yellow, blue and brown permits; \$165 for green permits; \$100 for purple permits; and \$45 for evening permits and summer school permits. The new fees represent a \$20 increase for red, yellow, blue and brown permits, a \$10 increase for green and purple permits, and a \$5 increase for evening and summer school permits.

The committee also decided to eliminate the green permit lottery next year and distribute the \$165 green permits on a first-come, first-serve basis. In addition, the committee added 75 discounted green spaces in the parking garage, bringing the total to 325.

The lottery originally was designed for faculty, staff and graduate students who were both unable to pay the fees for higher-priced permits and needed use of their cars to care for small children or elderly relatives during the day. Green permits allow indi-

viduals to park on the eastern ends of the large parking lots that border Skinker Boulevard; on the lot near Big Bend Boulevard immediately north of the Athletic Complex; and on the South Forty lot along Wydown Boulevard, next to the First Congregational Church of St. Louis, 6501 Wydown Blvd.

"The committee decided that first-come, first-serve was the fairest way to apply for the green permits," said Gaines,

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Medical Update

Hands-on experiments teach budding scientists

Five fourth-graders sit around a small table in a classroom. Each has on rubber gloves and is taking turns touching and poking at a human brain. Although the children appear calm and keenly interested, there are a few "yucks" and squeals. Doug Creedon, a postdoctoral fellow in molecular biology and pharmacology at the School of Medicine, is pointing out different parts of the brain.

This isn't an ordinary day in class for these fourth-graders from the Center for Creative Learning, a magnet school in the Rockwood School District. The 25 students are on a field trip at the School of Medicine to participate in the Hands-on Neuroscience Program, which was started four years ago. A group of graduate students led by Julie Fiez founded the program. Fiez now is doing a collaborative postdoctoral fellowship with Washington University and the University of Iowa. The main purpose of the program, currently directed by Creedon, is to expose elementary and junior high students to the principles of neuroscience using a series of hands-on demonstrations.

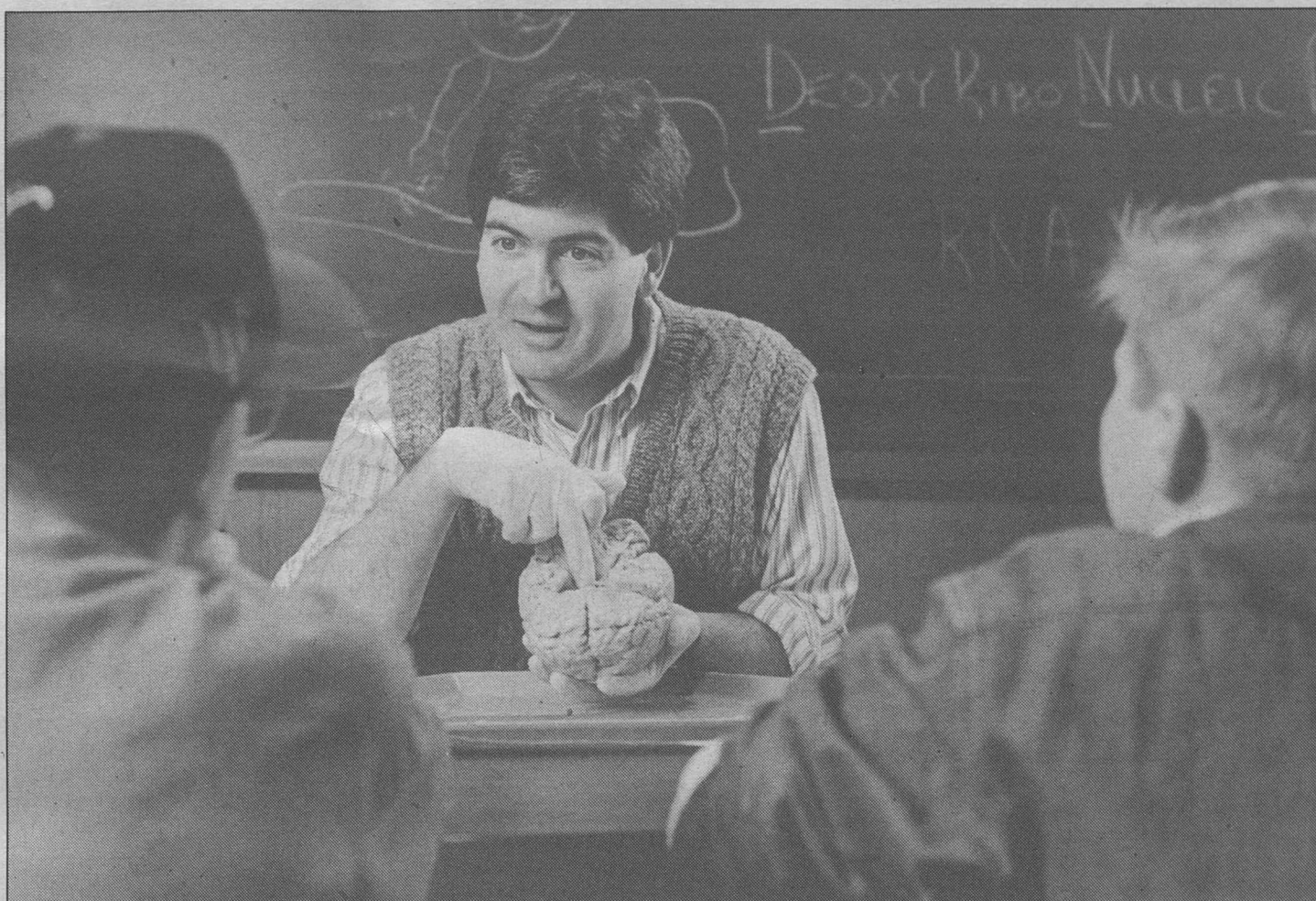
"One of our goals was just to show that science can be fun and scientists can be fun. I think one positive thing about the program is that they can see scientists are normal people," Fiez said. Graduate students, postdoctoral fellows and professors visit schools or host the students at the medical school.

In another room down the hall, the fourth graders are learning about embryos, single cells and the development of the nervous system. Lisa Evans, a graduate student in neuroscience, is using microscopy as a teaching tool.

Students in the program also learn about heart pharmacology and how visual and motor illusions work, in addition to other subjects.

Fiez said the program evolved in response to schools' requests. Schools and groups started calling Steve Petersen, associate professor of neurology, and asking him to do demonstrations. Fiez, who worked in Petersen's lab at the time, said the program then spread by word of mouth.

The Hands-On Neuroscience Program has received support from the Alzheimer's Disease Research Center Education Core and the Department of Neuroscience.



Doug Creedon, Ph.D., a postdoctoral fellow in molecular biology and pharmacology, demonstrates the anatomy of a human brain to gifted students from the Rockwood School District. Creedon directs the Hands-on Neuroscience Program, which exposes elementary and junior high students to the principles of neuroscience.

This is the second year that Theresa Stockman, a teacher at the Center for Creative Learning in Rockwood, has brought students to the medical school to participate in the program. She has accompanied eight groups of students this year.

Stockman believes the program greatly benefits her students. "The things kids get here they can't have in the classroom," she said. "We're here because of the hands-on experiments that you have the resources for and the expertise the kids get from these presenters."

Stockman said the kids were a little leery at first about participating in the program, but she said parents now tell her about graphic dinner conversations about the human brain.

When the kids return to her classroom, they discuss what they could learn in the

future about neuroscience and why people study neuroscience. "And maybe we're sparking some interest in some future scientists," Stockman said.

One of Stockman's students, Emily Ingram, said the program may have changed her view of scientists. "Before, I thought they were just people in labs who poured chemicals into beakers. Now I know they are people who study and do experiments about the brain."

Ingram, who recently completed a science experiment on a cow's brain at her school, said she may want to be an environmental scientist someday.

Randy Buckner, a graduate student in biology and biomedical sciences, has been working with the program since it began. He teaches the students about his area of

work, using Positron Emission Tomography (PET) scans to study memory.

By participating in the program, Buckner said he is trying to give back some of the help he received. "You get kids interested in science and just having them exposed to new things will emphasize the process of getting information. They also get to see what we do," he said.

Evans, who has been part of the program for two years, said she enjoys working with elementary school students because of their fresh curiosity.

Evans thinks one of the program's most important components is that students get to see what scientists are like. "I think it's important for the community to understand we're not mad scientists. We are just trying to understand how our bodies work."

—Diane Duke

Cain named director of cardiovascular division

Michael E. Cain, M.D., has been named director of the Cardiovascular Division and the Tobias and Hortense Lewin Professor of Cardiovascular Diseases at the School of Medicine.

These appointments were announced by John P. Atkinson, M.D., professor and chairman of the Department of Internal Medicine. Cain succeeds Burton E. Sobel, M.D., who served as division director since 1973. Sobel now is chair of the Department of Medicine at the University of Vermont College of Medicine. Cain has been interim director of the division since November.

Cain joined the Washington University faculty in 1981 as an assistant professor of medicine, became an associate professor in 1987 and a professor in 1993. He is well known for his research aimed at understanding the causes of life-threatening abnormal heart rhythms called ventricular arrhythmias. Cain established Barnes Hospital's first clinical electrophysiology laboratory and arrhythmia service in 1981 and has been its director since that time. Under his leadership, the facility now is an internationally recognized clinical and research laboratory that has pioneered several developments in the diagnosis and treatment of arrhythmias.

Through research conducted at the laboratory, Cain and his colleagues have been instrumental in the development of novel nonpharmacologic therapies, including arrhythmia surgery and radiofrequency catheter ablation, which can cure many types of arrhythmias. These activities have

established Barnes Hospital as an international center of excellence for investigating the improved effectiveness of novel drugs that control the heart rhythm, sophisticated pacemakers that closely mimic the heart's electrical system, and implantable cardioverter/defibrillators that have proven life-saving for patients with dangerous heart rhythm disorders. In addition, Cain and his colleagues have developed and are testing new noninvasive and invasive methods, such as the signal-averaged electrocardiogram, for identifying patients with heart disease who are at high risk for developing dangerous heart rhythms.

Cain has received many honors during his career, including serving on the Ameri-

can College of Cardiology Board of Governors since 1991 and being named the current president of the organization's Missouri chapter. In 1982, Cain was given the School of Medicine Teacher of the Year Award.

Cain received his bachelor's degree in 1971 from Gettysburg College and earned his medical degree from George Washington University School of Medicine in 1975. He served his internship and residency at Washington University School of Medicine, and then completed a postdoctoral research fellowship and a clinical fellowship in the school's Cardiovascular Division. He also completed a second research fellowship in electrophysiology at the University of Pennsylvania School of Medicine.

Volunteers needed for obsessive compulsive study

Researchers at the School of Medicine are seeking volunteers for a pilot study of Obsessive Compulsive Disorder (OCD).

Elliot Nelson, M.D., instructor of psychiatry at the School of Medicine, is directing the study. Using Positron Emission Tomography (PET) scans, Nelson is looking for irregularities in blood flow and oxygen metabolism in the brains of patients with the disorder.

"People from all walks of life — and even individuals from different cultures — share these symptoms. It would only make sense that an underlying abnormality of brain function would be present," Nelson said.

Obsessive Compulsive Disorder is characterized by unwanted and persistent thoughts, impulses, or images. Often people with OCD

also will engage in irrational behaviors, such as excessively washing their hands or checking on a door lock.

Medications may relieve many of the symptoms of OCD. Nelson is seeking study volunteers who are currently not taking medication because medications may alter blood flow in brain regions. Potential volunteers are ineligible if they are currently depressed or have had any significant neurologic illness.

Participants must be older than 18. Study subjects will receive a psychiatric evaluation, diagnostic testing and PET scanning at no cost. Those accepted for the pilot study receive a \$75 stipend for their participation. For more information, call 362-2465.

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Washington
WASHINGTON UNIVERSITY IN ST. LOUIS

Washington People

Volleyball court is Clemens' laboratory

It was a bold maneuver. Even by Teri Clemens' standards.

It's the summer of 1979 and Clemens, a 23-year-old tennis coach at Trenton High School in Kansas City, Mo., is driving back to her hometown of St. Louis for a job interview. The position? Head volleyball coach at Incarnate Word Academy.

Clemens is coming off a multi-sport career as a student at Northeast Missouri State University that includes most valuable player nods in tennis, field hockey and softball. Volleyball? Not on the resumé.

During stops along the drive and then deep into the night upon her arrival in St. Louis, Clemens buries her nose in a tattered library book. The tome is titled *How to Coach Volleyball*.

"When I came in the next morning for my interview," said Clemens in retrospect, "it was clear they were looking for someone who knew the X's and O's of the game. The first question they asked me was if I knew how to run a multiple offense. I just sat there with a straight face and whipped off a handful of options. I got book-smart over the weekend.

"I knew I could coach the sport — I knew I could coach ANY sport.

"Of course, there was a little concern after I lost my first four matches!"

Nineteen straight subsequent victories erased any lingering doubts and now, 15 years later, Clemens has managed to fill out her volleyball portfolio rather nicely. She stayed six years at Incarnate Word, accumulating a record of 155 wins-15 losses and winning state championships in each of her last three seasons. She moved on to Washington University in 1985, where she has accrued a mark of 333 wins-54 losses and led the Bears to a quartet of NCAA Division III national titles. And now, this summer, she will serve as the head coach of the North squad at the 1994 U.S. Olympic Festival, an event that will showcase some of the premier amateur talent in the nation.

After feverishly reading *How to Coach Volleyball* a decade and a half ago, Clemens is uniquely qualified to edit any future editions.

"No, I wasn't an elite volleyball player," she said from her moment-packed office at the Washington University Field House. "But the best coaches are successful because they can teach — not because of any base of knowledge they might have. Anybody can read a book and learn the sport. I'm Exhibit A. But teaching is communicating and presenting and motivating. And those things are isolated from the material itself."

Clemens carries the coach-as-teacher analogy a step further by comparing her practice sessions in the gymnasium to lessons in a professor's laboratory. She points out that each session is structured in a similar fashion. First there's an introductory period to set up the day's activities. Then there's an introduction of new material, followed by explanation, demonstration and repetition of the concepts. The individual introductions are then fused into a tactical setting. Finally, there is a review of the materials from the previous practice.

While the format may appear rigid, the application could not be more elastic.

"There are never two practices the same," swears Joe Worlund, the University's director of intramural sports and Clemens' eight-year assistant. "Never. She has not once recycled a practice within the course of her career. That's not to say that practice won't follow the same pattern — but it's not, 'Hit this many minutes, then pass, then block.'"

"You may work on passing all one day. But, even so, if you have another passing day two months later, there aren't the same drills as before.

"Designing innovative, talent-provoking drills comes so easily to her — she doesn't understand that other people can't do it," Worlund added. "I can sit there for a week and try to come up with a new passing drill and I can't even get an idea of how to start the darn thing. Much less, 'Okay, put eight people here and get this line going in that direction, then rotate through.'"

Worlund offers further common denominators of a Clemens-run practice session. "There are two theories that she relies on. The first is, if it's not fun, don't do it. She incorporates an element of fun into every part of her program. The second thing she preaches is that you play matches merely to see what you need to practice. A match is simply an evaluation tool.

"I don't know that the players would pick practice over a match, but they appreciate the importance of practice and they enjoy the process. That, in itself, is somewhat unheard of."

Clemens sees such a contrast between a game-day setting and a practice session that she has radically different demeanors for the two. Jekyll and Hyde would be a fair comparison.

At every match that she has coached — for all 15 years — Clemens has sat stoically, positioned toward the middle of the bench, with a pen in her hand. The pen is her constant reminder that the match is only a test. Only on rare occasions will she become riled — almost never for a physical error, but most often for what she perceives as a lack of total effort. A huge demonstrative display would be

to her ability at the age of 6 to make a third-grade softball team. Then, after getting stuck in right field, fighting her way to the coveted first-base job within one month.

"Without a doubt," she said, "competitiveness is my signature. For good or bad, I tend to make a competition out of non-competitive aspects of my life.

"I like to be surrounded by competitive people. Bringing in competitive student-athletes makes you a better coach. You're risking that they're going to want you to create a more competitive laboratory and a more highly charged agenda every day at practice — and that's a big challenge for me. So

it has just built over the past nine years and the expectations, my own as well as the players, are now extremely high."

The only thing that has defused Clemens' constant quest for competition has been her expanding family. Over the past six years, she and her husband, Tom, have adopted six children — now aged 18, 9, 8, 8, 3 and 2.

"As a parent, I'm recognizing that not every situation should be a contest."

Says Worlund, her closest friend, with a knowing grin, "She tries hard, but there's still a lot of, 'Let's see how fast you can get your pajamas on.'"

Bold, occasionally brash, fast-talking, full of fun and brimming with enthusiasm. Those are a sampling of the adjectives that others use when describing Clemens.

"Teri is a black-and-white kind of person," said Juniata College head coach Larry Bock, who is Division III's all-time victory leader and whose team fell to the Bears in the 1993 national title tilt. "There's not a lot of gray area in anything she seems to say or do. She's a straight-shooter with a contagious personality and is obviously a tremendous communicator. I'm quite sure her players have a real good idea of what she expects from them."

Clemens' candor made an immediate impact on John Schael, Washington University's director of athletics, during their initial meeting nearly 10 years ago.

"We had re-opened our national search for a head coach after I felt no connection or comfort level with the first round of candidates," recalled Schael. "I met with Teri extremely late in the process. She told me that day that she would win a NCAA championship within five years. And you know what? I believed her."

Within two days, Clemens was hired. Within five years, she kept her promise. After charting a 12-18 record with the players she inherited in 1985, Clemens sent the Bears on a 43-8, 47-8 and 37-4 ride over the next three years. In 1989, her fifth season on the Hilltop,

Clemens led Red and Green to a 39-7 mark and a 3-0 national championship win over Ohio Northern University.

The Bears finished second in the nation with a 31-3 mark in 1990, and have since won three straight NCAA titles with ledgers of 42-4, 40-0 and 42-2.

In nine years, the program has produced 24 All-Americans and six national players-of-the-year. Five times a Bear has been recognized as a GTE Academic All-American, with senior Amy Sullivan twice being tabbed as the Academic All-American of the Year.

Perhaps the biggest tribute comes from Bock, the victim of Clemens' latest title conquest.

"We have some real tough kids on our team at Juniata and they find a way to manufacture dislike for the opposing coach," said Bock with a chuckle. "But our kids, to a person, truly like Coach Clemens. She's a first-class lady from a first-class institution."

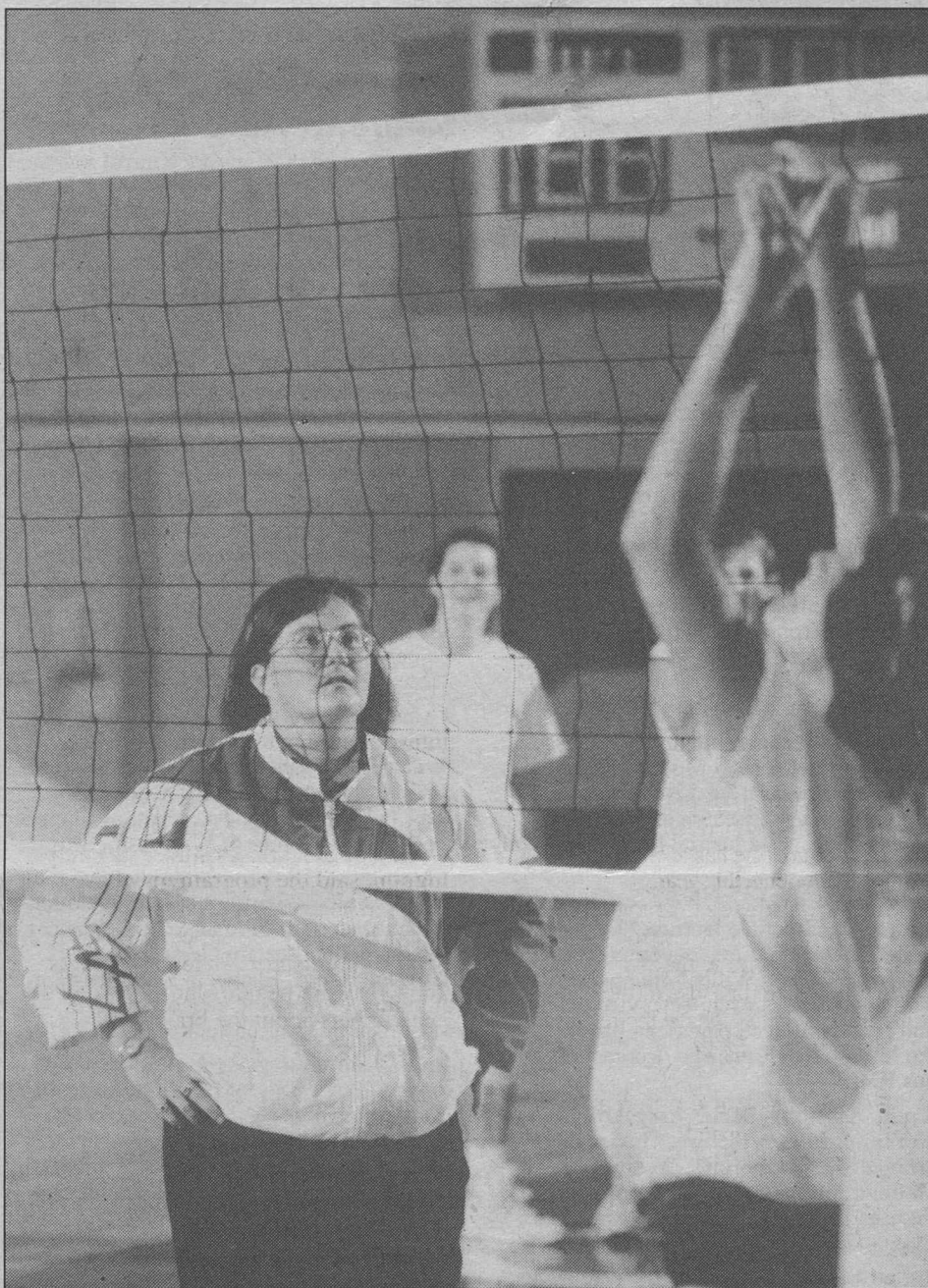
If nothing else, Clemens recognizes the tail end of Bock's statement. Despite job offers numbering "20-something" — including a courtship from the University of Missouri this past winter — Clemens has resisted all temptation to move on to the Division I level.

"Recruiting takes up about 60 percent of my time," she estimated, "so I truly have to believe in what I'm touting. I'm constantly selling the strengths of our professors, the beauty of the campus, the tradition of our program and the class of the athletic department as a whole.

"The other factor that keeps me at Washington University is the intelligence of the student-athletes. I've had experiences outside of Washington University that have reminded me of the great joy of working with intelligent people. That is something special and not something to be taken for granted.

"I think we've sort of created our own monster. The St. Louis community, the Washington University community and we ourselves have all placed this great expectation on volleyball to produce. I guess it's true — anything less than a national championship, at that moment, would not feel as good.

"But that, for me, is just another competition. That's great, I love it — bring it on!" — Dave Moessner



"Without a doubt, competitiveness is my signature. For good or bad, I tend to make a competition out of non-competitive aspects of my life."

something along the lines of tossing her pen a couple of feet behind her. Only once has she received a yellow card — a first-level warning from the referee — and that was to win a side bet with Worlund.

However, in practice, Clemens is on stage. She cajoles, she barks. She jokes, she pesters. She teaches, she preaches. All the while creating a lightning-paced atmosphere of learning.

"I love practice!" Clemens says with a smile so broad that it makes her squint. "It's true that matches are for players and that practices are for coaches. I don't get to do a whole lot during matches — I just sit and watch like the fans do. The coach doesn't play a massive role. We get two time-outs a game and limited time in-between, so we can't exactly formulate a new offense.

"But at practice — that's where we get to create, that's where we get to develop. I can play all different roles at practice — whatever I deem necessary at that moment."

The gleam in her eye reveals Clemens' single, defining trait. Complete competitiveness. The verve that goes back

Calendar

April 7-16



Exhibitions

"Paracelsus, Five Hundred Years." Continues through July 15. Glaser Gallery, School of Medicine Library. Hours: 9 a.m.-9 p.m. weekdays; 1-5 p.m. weekends. 362-7080.

Center of Contemporary Arts Annual Juried Exhibition. "Caje '94: America's Cultural Diversity," a print exhibit by Jeffrey Sipple. Continues through April 30. Sipple is an artist and director of education at Tamarind Institute, U. of Mexico, Albuquerque. Exhibit is held in collaboration with the School of Fine Arts. Center of Contemporary Arts, 524 Trinity Ave. 935-6571 or 725-6555.

"38 Hands." Exhibit features the work of first-year master of fine arts students. Continues through April 17. Pierce-Arrow Gallery, 4814 Washington Ave. Hours: 12-6 p.m. Wednesdays; 12-7 p.m. Fridays; 12-6 p.m. Saturdays and Sundays. 935-4761.

"Junior exhibit" features a collection of artwork by junior fine arts students. Through April 17. Reception: 5-7 p.m. April 8. Bixby Gallery, Bixby Hall. Hours: 10 a.m.-4 p.m. weekdays; 1-5 p.m. weekends. 935-4643.

"The Authenticated Word: Victorian Illustrated Books, 1820-1900." April 8 through July 1. Olin Library, Special Collections, level five. Hours: 8:30 a.m.-5 p.m. weekdays. 935-5495.



Films

Thursday, April 7

7 and 9 p.m. Filmboard Foreign Series. "Ballad of a Soldier" (1959, B&W), in Russian with English subtitles. Room 100 Brown Hall. Cost: \$3. **For 24-hour Filmboard hotline, call 935-5983.**

Friday, April 8

7 and 9:30 p.m. Filmboard Feature Series. "Orlando" (1993). (Also April 9, same times, and April 10 at 7 p.m.) Room 100 Brown Hall. Cost: \$3.

Midnight. Filmboard Midnight Series. "Harold and Maude" (1971). (Also April 9, same time, and April 10 at 9:30 p.m.) Room 100 Brown Hall. Cost: \$3.

Tuesday, April 12

7 p.m. Japanese Film Series. "Tampopo" (1987), with English subtitles. Sponsored by Dept. of Asian and Near Eastern Languages and Literatures. Room 219 South Ridgley Hall. 935-5156.

Calendar guidelines

Events sponsored by the University — its departments, schools, centers, organizations and its recognized student organizations — are published in the Calendar. All events are free and open to the public, unless otherwise noted.

Calendar submissions should state time, date, place, sponsor, title of event, name of speaker(s) and affiliation, and admission cost. Quality promotional photographs with descriptions are welcome. Send items to Judy Ruhland at Box 1070 (or via fax: 935-4259). Submission forms are available by calling 935-4926.

The deadline for all entries is noon Tuesday one week prior to publication. Late entries will not be printed. The Record is printed every Thursday during the school year, except holidays, and monthly during the summer. If you are uncertain about a deadline, holiday schedule, or any other information, please call 935-4926.

Wednesday, April 13

7 and 9 p.m. Filmboard Foreign Series. "Jules and Jim" (1961, B&W), in French with English subtitles. (Also April 14, same times.) Room 100 Brown Hall. Cost: \$3.

Friday, April 15

7 and 9:30 p.m. Filmboard Feature Series. "Cinema Paradiso" (1989), in Italian with English subtitles. (Also April 16, same times.) Room 100 Brown Hall. Cost: \$3.

Midnight. Filmboard Midnight Series. "Airplane!" (1982). (Also April 16, same time.) Room 100 Brown Hall. Cost: \$3.



Lectures

Thursday, April 7

Noon. Genetics seminar. "The Molecular Genetics of Cardiovascular Disease," Mark Keating, Program for Human Molecular Biology and Genetics, U. of Utah, Salt Lake City. Room 816 McDonnell Medical Sciences Bldg. 362-7072.

Noon. Pediatric research seminar. "Germline Manipulation of Glucose Transport in Muscle," Bess A. Marshall, instructor, Dept. of Pediatrics. Third Floor Aud., St. Louis Children's Hospital. 454-2713.

2:30 p.m. Mechanical engineering colloquium. "Normal Modes and Localization in Nonlinear Repetitive Structures," Melvin E. King, research asst., Dept. of Mechanical and Industrial Engineers, U. of Illinois, Champaign-Urbana. Room 100 Cupples II Hall. 935-6047.

4 p.m. Architecture lecture. "Fourplex: Water, Transportation, Governing, Housing," alumnus Michael Willis, principal, Michael Willis Associates Architects, vice president and president-elect, American Institute of Architects, San Francisco. Room 116 Givens Hall.

4 p.m. Assembly Series Association of Korean Students lecture. "Is Good Government an Oxymoron?" Wendy Lee Gramm, former chair, U.S. Commodity Futures Trading Commission. May Aud., Simon Hall. 935-5495.

4 p.m. Biology and biomedical sciences student-organized seminar. "Contribution of Hydrogen Bonding and the Hydrophobic Effect to Protein Stability," C. Nick Pace, prof., Dept. of Medical Biochemistry, Texas A & M College of Medicine, College Station. Erlanger Aud., McDonnell Medical Sciences Bldg. 362-3974.

4 p.m. Chemistry seminar. "The Pauson-Khand Reaction," Marie E. Krafft, prof. of chemistry, Florida State U., Tallahassee. Room 311 McMillen Lab. 935-6530.

4 p.m. Economics lecture. "Economic Performance Throughout Time," Nobel Laureate Douglass C. North, Henry R. Luce Professor of Law and Liberty. Sponsored by Economics Honor Society. Room 113 Simon Hall.

4 p.m. Social thought and analysis lecture. "In Praise of Distributed Citizenship," Michael Schudson, prof. of sociology and communications, U. of California, San Diego. Room 140 McMillan Hall. 935-4860.

4:30 p.m. Math colloquium. "Integral Formulas in Complex Analysis," Lev Aizenberg, prof. of mathematics, U. of Maryland, College Park. Room 199 Cupples I Hall. (Tea: 4 p.m. in Room 200).

Friday, April 8

4 p.m. Anatomy and neurobiology seminar. "From Embryonal Carcinoma Cells to Neurons: The P19 Pathway," David Gottlieb, prof., Dept. of Anatomy and Neurobiology, and assoc. prof., Dept. of Biochemistry and Molecular Biophysics. Room 928 McDonnell Medical Sciences Bldg.

4 p.m. Assembly Series lecture. "Today's Young and Gifted Student: Bringing Something to the Table Other Than an Appetite," Star Jones, attorney and legal correspondent for NBC news. Keynote lecture of the 1994 Martin Luther King Jr. Symposium, "A

Changing of the Guards." Graham Chapel. (Reception: 5:15 p.m. in Holmes Lounge, Ridgley Hall.) 935-5285.

4 p.m. Hematology-oncology seminar. "Annexin II: A New Thromboregulatory Protein?" Katherine A. Hajjar, Division of Hematology-Oncology, Dept. of Pediatrics, Cornell U. Medical College, Ithaca, N.Y. Room 8841 Clinical Sciences Research Bldg. 362-8830.

4 p.m. Microbial pathogenesis seminar. "The Bordetella Virulence Regulon," Jeffrey Miller, asst. prof., Dept. of Microbiology and Immunology, U. of California Medical School, Los Angeles. Room 775 McDonnell Medical Sciences Bldg.

Saturday, April 9

9 a.m. Saturday Morning Neural Sciences Seminar Series: MRN — Magnetic Resonance Neuroscience. "Neuroradiology," Mokhtar Gado, prof., Dept. of Neurology and Neurological Surgery and prof., Dept. of Radiology. Erlanger Aud., McDonnell Medical Sciences Bldg. 362-5950.

Monday, April 11

Noon. Molecular biology and pharmacology seminar. "Role of Receptor Tyrosine Kinase Signaling During Organogenesis," Kevin G. Peters, asst. prof., Dept. of Medicine, Duke U., Durham, N.C. Room 3907 South Bldg. 362-2556.

Noon. Neurology and neurological surgery research seminar. "Neurology and Cell Biology of Alcoholism," Ivan Diamond, director, Ernest Gallo Clinic and Research Center, San Francisco General Hospital. Schwarz Aud., First Floor Maternity Bldg.

4 p.m. Biochemistry and molecular biophysics seminar. "Three-dimensional Structure of Fatty Acyl CoA Dehydrogenase: Structural Basis for Substrate Specificity," Jung Ja Kim, assoc. prof., Dept. of Chemistry, Medical College of Wisconsin, Milwaukee. Room 2918 South Bldg.

4 p.m. Biology seminar. "Microevolutionary and Macroevolutionary Consequences of Selfing in the Mustard Genus *Leavenworthia*," Elizabeth Lyons, asst. prof. of biology, Amherst College, Amherst, Mass. Room 322 Rebstock Hall. 362-4188.

4 p.m. Immunology seminar. "Phagolysosomal Processing of Bacterial Antigens: Another Level of the Host-pathogen Interaction," John D. Pfeifer, asst. prof., Dept. of Molecular Microbiology and asst. prof., Dept. of Pathology. Third Floor Aud., St. Louis Children's Hospital.

4 p.m. Social thought and analysis lecture. "Modernity and Male Gregariousness: The Adda in Calcutta's Culture," Dipesh Chakrabarty, prof., Dept. of History, U. of Chicago. Room 140 McMillan Hall.

8 p.m. Architecture lecture. "The Sarajevo Projects," Lebbeus Woods, prof. of architecture, The Cooper Union School of Art and Architecture, New York City. Steinberg Hall Aud. 935-6200.

Tuesday, April 12

12:30 p.m. Jewish traditions lecture. "Moshiach — The Person and the Era: The Traditional Jewish Belief," Rabbi Yosef Landa, director, St. Louis Chabad House, an orthodox outreach group. Bring your lunch, friends and questions. Lambert Lounge, Room 303 Mallinckrodt Center. 726-6177.

4 p.m. Chemistry seminar. "An Enantioselective Synthesis of the Daumomycins," Andrew G. Myers, prof. of chemistry, California Institute of Technology, Pasadena. Room 311 McMillen Lab. 935-6530.

5 p.m. Tumor genetics group seminar. "Molecular Genetics of the Central Nervous System Neoplasms," Kevin Roth, asst. prof., depts. of Molecular Biology and Pharmacology and Pathology. Room 228 Biotechnology Center, 4559 Scott Ave. 362-7149.

5:05 p.m. Central Institute for the Deaf Seminar on Progressive Sensory Loss. "Genetic Degenerative Diseases of the Retina," Mitchel L. Wolf, assoc. prof., Dept. of Ophthalmology and Visual Sciences, and Martin S. Silverman, asst. prof., Dept. of Ophthalmology and Visual Sciences. Second Floor Aud., Central Institute for the Deaf. 652-3200, ext. 671.

Wednesday, April 13

7:30 a.m. Obstetrics and Gynecology Grand Rounds. "Coagulopathies in Pregnancy," Robert Sigman, Maternal-Fetal

Medicine Fellow and instructor, Dept. of Obstetrics and Gynecology. Clopton Aud., 4950 Children's Place. 362-3122.

11 a.m. Assembly Series CHIMES/Benjamin E. Youngdahl Lecture on Social Policy. "Shopping, Politics and the Meaning of Life: A Perspective on the American Consumer Culture," Barbara Ehrenreich, author and social critic. Graham Chapel.

12:30 p.m. Neurosciences luncheon seminar. "Immediate Early Gene Expression is Necessary for Programmed Neuronal Death," Steve Estes, postdoctoral fellow, Dept. of Neurology. Room 928 McDonnell Medical Sciences Bldg.

3:30 p.m. East Asian studies lecture. "What We Can Learn From Asian Education," Shin Ying Lee, asst. research scientist, Center for Human Growth and Development, U. of Michigan, Ann Arbor. Co-sponsored by Joint Center for East Asian Studies. Room 331 Social Science and Business Bldg., U. of Missouri-St. Louis, 8001 Natural Bridge Road. 553-5753.

4 p.m. Biochemistry and molecular biophysics seminar. "Using Peptides to Study RNA-Protein Recognition," Alan D. Frankel, Gladstone Institute, U. of California, San Francisco. Cori Aud., 4565 McKinley Ave.

4 p.m. Physics colloquium. "Understanding Quantum Mechanics in a Consistent Way," Robert Griffiths, prof., Carnegie-Mellon U., Pittsburgh, Pa. Room 204 Crow Hall.

Thursday, April 14

9:30 a.m. Eighteenth Annual I. Jerome Flance Visiting Professor of Medicine Lecture. "Transcriptional Control Elements Determining Lung-specific Gene Expression as a Basis for Gene Therapy," Jeffrey A. Whitsett, vice-chair, Dept. of Pediatrics, Children's Hospital Medical Center, Cincinnati. Clopton Aud., 4950 Children's Place.

11:15 a.m. Social work lecture. "Funding Mental Health Services: Key Studies and Findings," Martha N. Ozawa, Bettie Bofinger Professor of Social Policy. Second Floor Conference Room, Administration Center, 1130 S. Hampton. 935-5687.

Noon. Genetics seminar. "The Neurofibromatosis Tumor Suppressor Gene: New Insights Into an Old Problem," David Gutmann, asst. prof., depts. of Neurology, Genetics and Pediatrics. Room 816 McDonnell Medical Sciences Bldg.

Noon. Pediatric hematology/oncology lecture. "Isolation of the Components of the Mitotic Spindle in Yeast," David Pellman, Whitehead Institute for Biomedical Research, Massachusetts Institute of Technology and Harvard Medical School, Cambridge, Mass. Third Floor Aud., St. Louis Children's Hospital. 454-6128.

Noon. Pediatric Research Institute seminar. "Lipid Aspiration: Animal/Human Correlates," John L. Columbo, assoc. prof. of pediatrics, U. of Nebraska, Omaha. Janes Conference Room, Cardinal Glennon Children's Hospital, 3662 Park Ave.

4 p.m. Architecture lecture. "Recent Works," Manuel Ruisanchez and Xavier Vendrell, visiting professors, School of Architecture and partners, Ruisanchez Vendrell Architects, Barcelona, Spain. Room 116 Givens Hall. 935-6200.

4 p.m. Biology and biomedical sciences student-organized seminar. "a2-Adrenergic Receptors: Structural Bases for Receptor Trafficking and Selective Coupling to Multiple Effector Systems," Lee E. Limbird, Dept. of Pharmacology, Vanderbilt U. School of Medicine, Nashville, Tenn. Erlanger Aud., McDonnell Medical Sciences Bldg. 362-1421.

4 p.m. Dept of Russian lecture. "Fiction Writing and Historiography in Pushkin's *Kapitanskaia dochka* (Captain's Daughter)," David Bethae, Vilas Professor and chair, Dept. of Slavic Languages, U. of Wisconsin, Madison. Women's Bldg. Lounge. 935-5177.

4:15 p.m. Philosophy colloquium. "Picturing People: Moral Graphics and the Problem of Recognizable Humanity," Margaret Walker, visiting prof., Dept. of Philosophy. Stix International House Living Room. 935-6670.

4:30 p.m. Math colloquium. "Representations of H_{∞} and Invariant Subspace Theorems," Wing-Suet Li, prof. of mathematics, Georgia Technical Institute, Atlanta. Room 199 Cupples I Hall.

5 p.m. International Affairs lecture. "Brazil and the Expansion of NAFTA," John D. Wirth, prof. of history, Stanford U., Stanford,

Calif. Sponsored by International Affairs Program, the International Studies Program of Arts and Sciences and the James E. Schiele family. Brown Hall Lounge. (Reception: 4:45 p.m.) Pre-registration required. 935-6777.

Friday, April 15

Noon. Cell biology and physiology seminar. "Optical Monitoring of Synaptic Vesicle Traffic in Living Frog Motor Nerve Terminals," William J. Betz, prof. and chair, Dept. of Physiology, U. of Colorado School of Medicine, Denver. Room 423 McDonnell Medical Sciences Bldg.

1:30-5:30 p.m. Gastroenterology lecture symposium. "Twenty-five Years of Scientific Contribution," led by David H. Alpers, prof., Dept. of Medicine. Wohl Aud., Wohl Hospital. 362-5035.

3 p.m. The Inaugural Stanley Spector Lecture on East Asian History and Civilization. "China, Incorporated: Business, Law and Politics in 20th-century China," William C. Kirby, prof. of history and chair, Council on East Asian Studies. Room 162 McDonnell Hall. 935-4448.

4 p.m. Anatomy and neurobiology seminar. "What Does the Cerebellum Contribute to Cognition? A Role in Imagined Movement and in Timing, Planning and Remembering," W. Thomas Thach Jr., prof., depts. of Anatomy and Neurobiology and Biochemistry and Molecular Biophysics. Room 928 McDonnell Medical Sciences Bldg.

Saturday, April 16

9 a.m. Saturday Morning Neural Sciences Seminar Series: MRN-Magnetic Resonance Neuroscience. "Brain Mapping," David Van Essen, Edison Professor of Neurobiology and head, Dept. of Anatomy and Neurobiology, and Michael Vannier, prof., Dept. of Radiology. Erlanger Aud., McDonnell Medical Sciences Bldg.



Music

Thursday, April 7

8 p.m. Duo piano recital. Performance features Sally Pinkas, asst. prof. of music, Dartmouth College, Hanover, N.H., and Evan Hirsch, concert pianist, Brandeis U., Waltham, Mass. Steinberg Hall Aud. 935-5581.

Saturday, April 9

1 p.m. Piano master class. Instructors are Sally Pinkas, asst. prof. of music, Dartmouth College, Hanover, N.H., and Evan Hirsch, concert pianist, Brandeis U., Waltham, Mass. Tietjens Rehearsal Hall. 935-5581.

Sunday, April 10

8 p.m. Voice recital. Performance features baritone Matthew Cooper, undergraduate student, accompanied by Gail Andrews, vocal coach and accompanist. Graham Chapel. 935-5581.

Thursday, April 14

8 p.m. Concert of music on courtly love. "L'Amour Courtois: The Art of the Troubadour and Trouvère," the Newberry Consort, an early music group from Chicago's distinguished Newberry Library. Steinberg Hall Aud. 935-5581.



Performances

Friday, April 8

8 p.m. Performing Arts Dept. presentation. "The Beggar's Opera," a satire on the conventions of Italian opera, is directed by Jeffery Matthews, artist-in-residence in drama. (Also April 9, same time.) Edison Theatre. Cost: \$7 for the general public; \$5 for senior citizens, WU faculty and staff; and \$5 for students. 935-6543.

Saturday, April 9

8 p.m. "Stage Left" series presentation. "Rever-Ber-Berations," presented by Spiderwoman Theater, a trio of American Indian sisters who translate their dreams into stories of their lives with movement and narrative. Drama Studio, Room 208 Mallinckrodt Center. Cost: \$12 for the general public with discounts for students and senior citizens. 935-6543.

Thursday, April 14

8 p.m. Hillel Foundation student preformance. "The Trial of God," a universal exploration of faith and injustice. (Also April 16 at 9 p.m.) Play is directed by junior Jamon Heller, drama major, and is produced by the Jewish Theater Group and Thyrsus. Cost: \$5 for the general public with student and faculty discounts. St. Louis Hillel Center, 6300 Forsyth Blvd. 726-6177.



Miscellany

Friday, April 8

9 a.m. Conference on Ethics and Cognitive Science. "Minds and Morals." Opening remarks by Roger F. Gibson, prof. of philosophy. (Continues through April 10.) At Washington University and Holiday Inn, 7730 Bonhomme, Clayton. Registration fee: \$35; free for WU students and faculty. For schedules and to register, call 935-6670.

10 a.m. St. Louis Symposium on German Literature. "Knowledge, Science and Literature in the Early Modern Period." Opening remarks by Provost Edward Macias. Brown Hall Lounge. (Continues through April 10.) Lectures Saturday and Sunday at West Campus Conference Center. Registration fee: \$25 for the general public; free for WU community. For schedules and to register, call 935-5106.

Noon. Woman's Club luncheon and orientation. Program by two local chapters of "The Questers," an organization that studies antiques. Cost: \$5 for members and guests. Women's Bldg. Lounge. For registration info., call 991-0885 or 721-5373.

7 p.m. Benefit cocktail party and preview of Printmarket. Gallery of Art. Reservations taken until 8 p.m. April 7. Cost: \$50 at the door. 361-3737. (Proceeds from Printmarket, a two-day print sale, will benefit the Gallery of Art. See April 9 calendar item for details.)

7 p.m. Martin Luther King Jr. Symposium discussion. "Empowerment Through Multicultural Organizations." Representatives from various student groups will discuss why their organizations are needed. Friedman Lounge, Wohl Center. 935-5994.

7 p.m. Reenactment of the march on Brookings. Robert L. Williams, prof. emeritus of African and Afro-American Studies and psychology, will discuss the significance of 1968 march. Event is part of the 1994 Martin Luther King Jr. Symposium, "A Changing of the Guards." Brookings Arch. 935-5994.

7 p.m. School of Fine Arts weekend workshop "Seeing Color With Phyllis Plattner." Instruction by Plattner, artist and teacher, Maryland Institute of Art. Workshop includes a slide lecture Friday evening in Room 104 Bixby Hall. (Through April 10.) Cost: \$225. For registration info., call 935-4643.

7-10 p.m. Office of Continuing Medical Education seminar. "Internal Medicine Review." The topic is allergy/immunology. Steinberg Amphitheatre, Jewish Hospital. For schedules and cost info., call 362-6893.

Saturday, April 9

10 a.m.-5 p.m. Printmarket. This exhibit and sale will showcase local and national print dealers. A variety of prints will be exhibited, including old and modern master prints, posters, Japanese woodblock prints, photographs, antiquarian maps, historical prints and many others. Exhibit continues noon-5 p.m. April 10. Cost: \$5 for the general public; \$2 for students. (A benefit cocktail party will be held at 7 p.m. April 8.) Gallery of Art. 935-5490 or 361-3737.

Monday, April 11

8 p.m. Poetry reading. Filipino-American novelist Jessica Hagedorn will read from her works. Introduction by William H. Gass, director, International Writers Center. Booksigning will follow. Edison Theatre.

Saturday, April 16

8:30 a.m. Domestic violence symposium. Domestic Violence Action will sponsor a day-long symposium on how to recognize and assist victims of domestic violence. Lunch included for pre-registered guests. Cost: \$10 for the general public, WU faculty and staff; free for students. Moore Aud., 4580 Scott Ave. Register by April 8. 362-8541.

9:30 a.m.-3:30 p.m. Office of Continuing Medical Education seminar. "The Uses of Aprotinin in Cardiothoracic Surgery." The Ritz-Carlton Hotel, 100 Carondelet Plaza, St. Louis. For cost and registration info., call 362-6893.

Folk tales, lively music make 'Banjo Dancing' one-of-a-kind

Modern-day troubadour Stephen Wade will stroll into Edison Theatre with a banjo on his knee at 8 p.m. April 15 and 16.

Wade originally was scheduled to perform "Banjo Dancing" April 15 and "On The Way Home" April 16, but will perform "Banjo Dancing" at both shows: "Banjo Dancing: Or the 48th Annual Squitters Mountain Song, Dance, Folklore Convention and Banjo Contest ... and How I Lost" is a lively combination of folk tales, tall tales, ghost stories and clogging, all tied together by the sound track of his banjo.

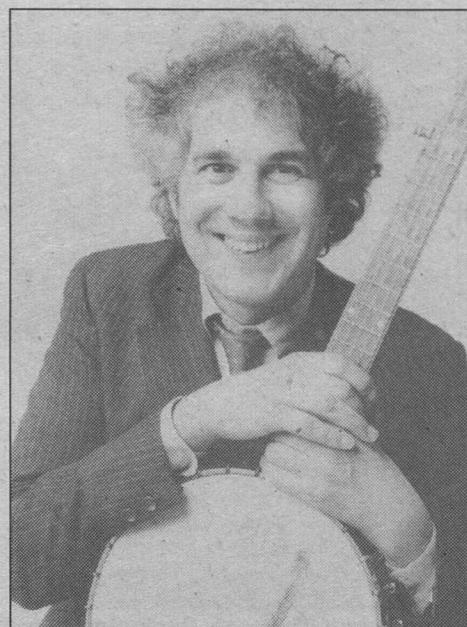
The Seattle Times described Wade's banjo as "sound track, chorus and special-effects lab rolled into one. It mimics falling raindrops, screws tightening, the scurrying of night creatures, birds walking in the woods and a train racing down the track. It also sings out lovely melodies."

"I had heard about Stephen Wade for years, but could never find him," said Evy Warshawski, managing director of Edison Theatre. "His show is one-of-a-kind and his followers get totally swept away by him. In other cities where he has performed, people go to see 'Banjo Dancing' over and over again."

"Banjo Dancing" was created in 1979 and ran for 13 months in Chicago. Afterward, Wade took the show on the road, stopping, among other places, at the Arena Stage in Washington, D.C. That

brief stop lasted 10 years. Wade's show was the longest running show in the city's history and one of the five longest running shows in the United States.

"Banjo Dancing" is part of Edison Theatre's "OVATIONS!" series. Tickets



Stephen Wade

are \$20 for the general public; \$15 for senior citizens and Washington University faculty and staff; and \$10 for students. Tickets are available at the Edison box office or METROTIX at 534-1111. For more information, call 935-6543.

Charity event showcases area restaurants

The sixth annual Savor St. Louis food festival will be held from 11 a.m. to 4 p.m. Wednesday, April 13, in Mallinckrodt Center and the adjoining Bowles Plaza.

Nine local restaurants are participating in the charitable event. The University community will have an opportunity to try foods prepared by these restaurants, with proceeds going to the St. Louis Literacy Council.

The restaurants are: Candicci's, Fitz's, Govinda's, Hank's Cheesecakes, Magic Wok, Pointer's, St. Louis Bread Company, Subway and Ted Drewes.

Savor St. Louis tickets will be sold in Mallinckrodt and Wohl centers April 6 through 13. Tickets can be purchased in 50-cent increments. At the event, gift certificates to local restaurants will be given away in a raffle.

Washington University singing groups will provide entertainment.

CHIMES, the Washington University junior honorary, organizes and hosts Savor St. Louis. Each year members select a charity to receive event proceeds. The St. Louis Literacy Council tutors illiterate adults in basic writing and math

skills. The council's program "Break the Cycle" helps functionally illiterate adults read to their children and grandchildren.

For more information, call 935-1261.

Inaugural Spector lecture held April 15

The inaugural Stanley Spector Lecture in East Asian History and Civilization will be held at 3 p.m. April 15 in Room 162 McDonnell Hall. The lecture honors Spector, Ph.D., who was centrally responsible for establishing Asian Studies at Washington University. Spector now is professor emeritus. A reception for Spector will follow the lecture.

William C. Kirby, Ph.D., professor of history and chair of the Council on East Asian Studies at Harvard University, will deliver this year's lecture, titled "China Incorporated: Business, Law and Politics in 20th-century China."

Since joining the University in 1955, Spector helped build the current degree programs in East Asian Studies, the East Asian Library and the extensive language program in Chinese and Japanese.

For more information, call 935-4448.

Sports

Baseball

Last Week: Illinois College 12, Washington 3; Washington 6, Illinois College 5; Illinois Wesleyan 16, Washington 9; Washington 5, DePauw 4

This Week: 3 p.m. Wednesday, April 6, at McKendree College, Lebanon, Ill.; 3:30 p.m. Thursday, April 7, vs. Missouri-St. Louis, Kelly Field; noon Saturday, April 9, at MacMurray College, Jacksonville, Ill.; 2 p.m. Sunday, April 10, vs. Maryville University, Kelly Field.

Season Record: 14-11-1

Women's Tennis

Last Week: Washington 9, Webster 0

This Week: 3:30 p.m. Wednesday, April 6, vs. Maryville University, Tao Tennis Center; 3:30 p.m. Friday, April 8, vs. Principia College, Tao Tennis Center; 9 a.m. Saturday, April 9, vs. Otterbein College, Tao Tennis Center; 1:30 p.m.

Saturday, April 9, vs. Wheaton College, Tao Tennis Center.

Season Record: 8-2

Men's Tennis

Recent Matches: Idle

This Week: 3:30 p.m. Wednesday, April 6, vs. Maryville University, Tao Tennis Center; 4 p.m. Thursday, April 7, vs. Principia College, Tao Tennis Center.

Season Record: 4-4

Men and Women's Track/Field

Last Week: at Principia College Invitational — Men's Finish: 2nd of 13; Women's Finish: 1st of 14

This Week: 10:30 a.m. Saturday, April 9, at Greenville Invitational, Greenville, Ill.



Members of Thurtene, the junior honorary, register runners for the Thurtene Throng Five-mile Road Race in Forest Park April 2. Runners paid \$10 to compete. Proceeds will benefit the girl's program of Mathews-Dickey Boys' Club.

Social critic, writer discusses American consumer culture

Writer and social critic Barbara Ehrenreich, author of *Fear of Falling*, will give the CHIMES/Benjamin E. Youngdahl Lecture on Social Policy at 11 a.m. Wednesday, April 13, in Graham Chapel. Her talk on "Shopping, Politics and the Meaning of Life: A Perspective on the American Consumer Culture," part of the Assembly Series, is free and open to the public.

Ehrenreich is the author of eight books, including *The Hearts of Men:*



Barbara Ehrenreich

American Dreams and the Flight From Commitment and The Worst Years of Our Lives: Irreverent Notes From a Decade of Greed, a collection of essays on the trends, ideas, heroes and

villains of the 1980s. Her first novel, *Kipper's Game*, was published in 1993.

A featured essayist for TIME magazine, Ehrenreich is a frequent contributor to The New York Times and The Guardian. Her much-discussed essays and articles also appear in Mother Jones, The Atlantic, Ms. and The New Republic.

Ehrenreich, who received her doctorate in biology at Rockefeller University in 1968, has worked in conjunction with other social critics to produce work on the American healthcare system, the attack on social welfare programs, and the role of women as healers.

The lecture is co-sponsored by the Assembly Series, CHIMES (the leadership honorary for juniors), Council of Students of Arts and Sciences, George Warren Brown School of Social Work and Student Union.

For more information, call 935-4620.

Danforth — from page 1

The concept of "in-placement" is gaining acceptance among staff members and some are discussing ways of meeting across departmental lines.

"The idea of moving into a different job at Washington University is exciting, a challenge, as long as people don't have to worry about getting paid less if they switch jobs," said Gay Youngman, a library assistant. "There are some common responsibilities in the different schools, such as in secretarial positions, mail, accounting, etc. I think it would be a good idea to get people in these positions together to give each other ideas about the best way to do things."

Another offshoot from the management team, the process mapping group, is taking a close look at the processes employees use to do their jobs with an eye toward reducing unnecessary or inefficient steps. Some departments already have started mapping processes on an informal basis.

"We had an opening in our office six months ago and informally looked at the processes of that job. We improved several processes almost immediately with very little effort," said Becky Priest, administrative assistant in the Office of Financial Aid. "I think up to now people felt they were not allowed to change things. That was 95 percent of the problem. It's not that people don't think about better ways of doing things. They sit at their desk thinking 'Why am I doing x, y and z process,' but they didn't know how to go about making changes."

In a third group, employees are training each other how to do their jobs even better. Stories describing these committees will appear in future issues of the Record.

At the end of his presentations, before Danforth opened the floor to questions, he asked employees to think about the following three items: how they could simplify what they do; how what they do connects with what others do; and what they want to learn. The chancellor warned that some jobs will become obsolete or unnecessary in the next decade and urged the staff to stay flexible and ready for new challenges.

—Susannah Webb

'Genetically manipulated plants have been around forever' — from page 1

mentalists, on the other hand, are more concerned with what happens to transgenic plants when they get into the wild where herbicides are not used. And then there are those who are skeptical, if not fearful, of anything that has been genetically engineered.

Bergelson, who in 1993 was awarded both a Presidential Faculty Fellowship and a David and Lucille Packard Fellowship, addresses all three concerns.

Measuring performance

She conducted her study in the Upper Seeds area of Wytham Woods, Oxford, United Kingdom. She used two varieties of the plant *Arabidopsis thaliana*, a fast-growing weed popular among biologists for genetic experiments. One variety had a naturally occurring herbicide resistance gene; the other did not. The resistant plant tolerates the commonly used herbicides sulfonylurea and imidazolinone, and it was developed through conventional breeding techniques, rather than with *Agrobacterium*-mediated genetic engineering.

That genetic engineering technique employs a bacterium to insert a gene into plant cells, and, while it is faster than traditional backcrossing, the same result is achieved. The plant with the gene represented a transgenic plant; the one without it represented a susceptible plant. They were grown in plots meant to simulate farm

conditions — clean-tilled soil with no competing plants — and in various competitive situations. No herbicides were used in order to measure the performance of the resistant plants.

Bergelson transplanted seedlings of each different plant into 20 plots, each one containing five different "competitive" backgrounds, comprising 0, 2, 10, 15 and 25 plants (other grasses and weeds) that competed for space, moisture and sunlight. She estimated the fecundity (level of fitness) of the different plants by calculating the number of fruits times the average number of seeds per fruit.

She found that the susceptible (lacking the resistance gene) plants outreproduced the resistant counterparts. This difference, however, was detectable only in dense areas. This suggests, said Bergelson, that the resistant plants paid a physiological cost of expressing resistance when it wasn't necessary — there were no herbicides applied to the plots, yet the resistant plants were constantly expressing their resistance. The situation might be compared to humans exhibiting the "fight or flight" syndrome all the time without either fighting or fleeing.

To estimate the relative invasiveness of the different plants, Bergelson transplanted four seedlings each of resistant and susceptible *Arabidopsis* into two experimental plot types and allowed them to compete with

other vegetation. In the fall, after the seedlings matured and dispersed their seeds, she counted the next generation of both types of plants and found the numbers were basically the same, despite the fact that the susceptible plants produced more seeds.

"These results show that differences in performance don't translate into differences in population dynamics," said Bergelson. "The current practice of screening the reproductive performance of resistant and susceptible crops may be inadequate to predict changes in the spread and invasiveness of species."

Researchers say that the Biotechnology Risk Assessment Protocols for transgenic crops must measure the effect of the new gene in the crop and then use that effect as a basis for predicting what it might do in a weed or some other background. But she says the effect of the gene in the crop tells little about what the same gene might do in a weed. She says her work carries two messages.

"You can't make an assumption from the crop to the weed," Bergelson said. "If you're worried about the weeds, study the weeds, not the crop. Second, transgenics are usually studied in nurturing conditions simulating agricultural fields, but these are not the kind of conditions you need to study. We should be more concerned with natural communities where there are more stresses. The resistant plants are more likely to show performance differences in natural conditions than agricultural conditions."

Lessening fears

Bergelson's research should lessen fears of biotechnology gone awry, but she faces an uphill battle. From *Jack and the Beanstalk* to "The Invasion of the Body Snatchers" to "Soylent Green," the public long has been enchanted by the intriguing powers of "super plants" and their potential to dominate, even transform, a landscape and its people.

In the 1990s, with the imminent release of transgenic tomatoes to the marketplace, chefs and cooks (among them the famous Cajun chef Paul Prudhomme) have banded together to say they will not use these products in their restaurants or recipes. Bergelson lays many of these misunderstandings on simple misperception.

"For hundreds of years, botanists have been breeding genes into crops using the same techniques we used to get our resistant *Arabidopsis* plants," she said. "It's unrealistic to say that agriculture has not had genetically manipulated plants. They've had them forever — it's just that they haven't been 'engineered' using *Agrobacterium*. Any problems with transgenic plants that are likely to occur are related to problems we've long faced. I don't see a big difference between transgenic plants and others, but in the public eye there is a big difference, and that's really puzzling."

—Tony Fitzpatrick

Campus Watch

The following incidents were reported to the Hilltop Campus Police Department March 28-April 4. Readers with information that could assist the investigation of these incidents are urged to call 935-5555. This list is provided as a public service to promote campus safety.

March 28

5:10 p.m. — A student's backpack was reported stolen from the first level of the Campus Bookstore in Mallinckrodt Center sometime between 3 and 3:15 p.m.

March 29

8:30 a.m. — Between 20 and 25 videotapes belonging to the Performing Arts Department were reported stolen from Room 322 Mallinckrodt Center sometime between 1 p.m. March 11 and 2 p.m. March 15.

9 a.m. — A Panasonic videocassette recorder was reported stolen from Room 315 Mallinckrodt Center sometime between 1 p.m. March 11 and 2 p.m. March 15.

4:27 p.m. — A student's mountain bicycle was reported stolen from the bicycle rack north of Koenig Residence Hall sometime between Dec. 25 and Jan. 12.

March 31

6:50 p.m. — A faculty member's automobile was reported stolen from the parking lot at the intersection of Millbrook and Skinker sometime between 11 a.m. and 6:15 p.m. The vehicle was recovered at 5 p.m. April 1 from a parking lot at the University of Missouri-St. Louis.

April 1

1:23 a.m. — A student's book bag was reported stolen from The Gargoyle in Mallinckrodt Center sometime between 12:15 and 12:30 a.m.

10:24 a.m. — Two banners belonging to Student Affairs and the Student Union were reported stolen from the walkway south of Olin Library sometime between noon March 31 and 8 a.m. April 1.

7:51 p.m. — A trunk lid spoiler was reported stolen from a student's vehicle parked on the lower level of the South Forty parking garage sometime between 12:01 a.m. and 7:50 p.m.

April 2

5 p.m. — An unknown person set a posted announcement on fire in an Eliot Residence Hall elevator causing damage to the east wall of the elevator.

April 3

1:34 p.m. — A suspicious person was reported checking room doors at 1 a.m. in No. 4 Millbrook Apartments. Subject left when he saw a resident of the apartment. Nothing was reported missing.

An incidence of minor vehicular damage also was reported last week.

For The Record

For The Record contains news about a wide variety of faculty, student and staff scholarly and professional activities.

Of note

Elaine C. Davis, Ph.D., research assistant professor in cell biology, received a \$30,500 grant from the United Scleroderma Foundation Inc. for a project titled "Elastic Fiber Assembly in Scleroderma." ...

During the YMCA of Greater St. Louis' annual dinner held in St. Louis, **Robert Easton**, Ed.D., director of the Student Counseling Service, was named Volunteer of the Year for the Campus Y. Easton, a member of the Campus Y's board of managers for 12 years, was recognized for his exceptional leadership, insight and judgment in problem-solving, as well as his commitment to the Campus Y's mission. ...

Melinda L. Ekin, a junior in architecture, received a \$1,000 Special Scholarship Award from the American Institute of Architects' (AIA) Colorado Educational Fund. The AIA presents the award primarily on academic merit, although recommendations and financial need are considered. ...

Daniel H. Kaplan, a student in the M.D./Ph.D. Program, received a scholarship from the Life and Health Insurance Medical Research Fund of Washington, D.C. The scholarship is for \$16,000 a year for up to five years. Kaplan is conducting research in human immunology and plans a career in teaching and medical research. The fund presents awards for basic biomedical research to prevent and treat major health problems. ...

Cynthia Lowe, a graduate student in education, served as an adviser to a third-grade class at Delmar-Harvard Elementary School in University City for its prize-winning entry in the Japan Through Books Contest. The students received a \$1,000 book collection about Japan. The contest was sponsored by the St. Louis-Suwa Sister City Committee, the University of Missouri-St. Louis Center for International Studies

and the St. Louis Center for International Relations. ...

Thomas A. Woolsey, M.D., director of the James L. O'Leary Division of Experimental Neurology and Neurological Surgery, professor of experimental neurology and of cell biology and physiology and of anatomy and neurobiology and of experimental neurological surgery, received a \$20,000 grant for neuroscience research from the Illinois-Eastern Iowa District Kiwanis International Spastic Paralysis Research Foundation. The foundation has provided support for his research since 1985.

Speaking of

Several faculty members in the Department of Speech and Hearing at the Central Institute for the Deaf (CID) delivered presentations during the Association for Research in Otolaryngology's annual conference held in St. Petersburg Beach, Fla. Those who presented talks were **Barbara Bohne**, Ph.D., research professor of anatomy and physiology; **William W. Clark**, Ph.D., professor of physiological acoustics and a senior research scientist in the CID Noise Laboratory; **Julius L. Goldstein**, Ph.D., research professor of electrical engineering and a senior research scientist at CID; **Gary W. Harding**, research scientist in otolaryngology and in neurological surgery; and **Gerald R. Popelka**, Ph.D., professor of audiology and director of professional education programs at CID. ...

During the Association of American Law Schools' annual conference held in Orlando, Fla., **Stephen H. Legomsky**, J.D., D.Phil., Walter D. Coles Professor of Law, spoke on migration issues in the former Soviet Union. He also spoke on asylum reform at a refugee policy conference hosted by Loyola Law School in Los Angeles. ...

John C. Morris, M.D., associate professor of neurology and director of the Memory and Aging Project, was the keynote speaker at the eighth annual Joseph and Kathleen Bryan Alzheimer Disease Research Center

Conference held in Raleigh-Durham, N.C. He spoke on "What If It Is Not Alzheimer's Disease? Current Findings on Related Disorders." ...

Carter Revard, Ph.D., professor of English, conducted a session on teaching American Indian literature at St. Louis University High School. The session was part of the school's multicultural seminar for literature teachers. He also read his poetry at colleges and universities in St. Louis, Tulsa, Okla., and Tucson, Ariz. ...

Stephan K. Schindler, Ph.D., assistant professor of German, presented a paper on "The Critic as Pornographer: Male Fantasies of Female Reading" during the American Society for Eighteenth-century Studies' 25th annual convention held in Charleston, S.C.

On assignment

Philip H. Godfrey, associate athletic director, was elected to the U.S. National Senior Sports Organization's board of directors for 1994-96. The group is the nation's leading organization representing the fitness and sports interests of seniors. ...

Henry D. Royal, M.D., professor of radiology and associate director of the Division of Nuclear Medicine at the School of Medicine's Mallinckrodt Institute of

Radiology, was appointed by President Bill Clinton as a member of the Advisory Committee on Human Radiation Experiments. The panel of 15 renowned ethicists, scientists and physicians will investigate the scientific and ethical history of ionizing-radiation experiments sponsored by the government from the early 1940s to mid-1974.

To press

Stamos Metzidakis, Ph.D., associate professor of French and comparative literature and director of the Summer School, edited and co-authored *Understanding French Poetry: Essays for a New Millennium*. The book examines technical questions, substantive issues and theoretical considerations of interest to readers of French poetry.

Guidelines for submitting copy:

Send your full name, complete title, department, phone number and highest-earned degree, along with a typed description of your noteworthy activity to For The Record, c/o Carolyn Sanford, Campus Box 1070, or p72245cs@wuvmd.wustl.edu. Items must not exceed 75 words. For information, call Sanford at 935-5293.

Engineering school to honor six alumni during April 14 ceremony

The School of Engineering and Applied Science will honor six distinguished alumni at its 20th annual Alumni Achievement Awards Dinner to be held on April 14 at the Missouri Botanical Garden's Ridgway Center.

Cocktails start at 5:30 p.m. Dinner will be served at 7 p.m. and the program begins at 8 p.m.

Alumnus William K. Y. Tao will receive the 1994 Dean's Award. The Alumni Achievement Awards recipients are Myron Dmytryszyn, D.Sc., Lee Harrison III, Charles A. Lebens and Henry G. Schwartz Jr. Arnold W. Donald will receive the Young Alumni Award.

The Dean's Award is presented to an individual whose dedication to engineering education has enhanced opportunities for students and faculty. Tao, trustee emeritus and affiliate professor of architecture, has made many contributions to education at Washington University. One of his most far-reaching ideas led to the University's annual named scholarship program, established by the engineering school in 1974. Today, all of the schools at Washington have named scholarship programs. Tao is an internationally known leader in engineering systems design. In 1956 he started his own engineering consulting business, William Tao and Associates. He received a master's degree in mechanical engineering in 1950.

The recipients of the Alumni Achievement Awards are in fields ranging from chemical and environmental engineering to economics and computer graphics.

Harrison will be honored for his achievements in computer graphics and in appreciation of his civic involvement. He founded Denver's Computer Image Corp., which created computer animation for television, education and industry. In 1972 he received the first Emmy Award for Outstanding Achievement in Engineering Development from the National Academy of Television Arts and Sciences. Harrison received a bachelor's degree in fine arts in 1952 and a bachelor's degree in mechanical engineering in 1959.

Lebens will be recognized for his accomplishments in the investment community and his commitment to higher education. He is principal founder of Bridge Information Systems Inc. and Bridge Trading Co. The firms provide real-time and historical information on more than 150,000 financial instruments, receiving data from exchanges and research services that span the globe. Lebens has provided the nation's top universities with full access to Bridge Information Systems for curricular use. He received a bachelor's degree in chemical engineering in 1957.

Schwartz will be honored for his accom-

plishments in environmental engineering and for his contributions to the engineering profession. Schwartz is president of Sverdrup Civil Inc. He has more than 25 years of experience with Sverdrup in the engineering and management of water and wastewater treatments, air pollution control and hazardous waste management projects. He received a bachelor's degree in civil engineering in 1961 and a master's degree in sanitary engineering in 1962.

Dmytryszyn will be recognized for his achievements in engineering research and development and in appreciation of his civic contributions. He retired in 1987 as general manager of the Research and Development Division of Monsanto Industrial Chemicals Co. after a 40-year career there. He is an active member of many professional, civic and University organizations. He received bachelor's, master's and doctoral degrees, all in chemical engineering, in 1947, 1949 and 1957.

Donald, group vice president and general manager of the Americas Division of the Monsanto Co. Agricultural Group, will receive the Young Alumni Award in recognition of his outstanding career achievements and extensive community service. He is the recipient of the 1994 National Black Alumni Award from the University's National Black Alumni Council and serves on numerous community and professional boards. He received a bachelor's degree in mechanical engineering in 1977 from Washington and an MBA from the University of Chicago in 1980.

For more information about the dinner, call 935-6100.

Obituaries

Leonard W. Fabian, M.D., former anesthesiology department chair and professor of anesthesiology, died on March 25, 1994, at Barnes Hospital. He was 70.

Fabian, of Town and Country, came to Washington University from the University of Mississippi in 1971. He became acting department chairman in 1980 and was later named chairman. He was on staff at Barnes and St. Louis Children's hospitals. He retired in 1992 as professor emeritus.

Fabian was born in North Little Rock, Ark. He earned a medical degree from the University of Arkansas School of Medicine in Little Rock in 1951. In the 1950s, Fabian and C. R. Stephen, M.D.C.M., also professor emeritus of anesthesiology, introduced the drug halothane in the

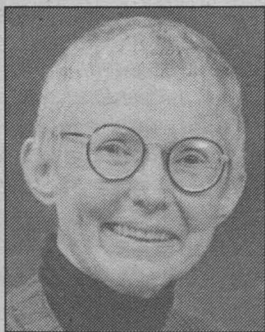
United States. The drug transformed the field of modern anesthesia. Fabian was a former national consultant in anesthesiology for the U.S. Air Force surgeon general and past chairman of the St. Louis Cardiopulmonary Resuscitation Committee.

Among his survivors are his wife, Mardelle Fabian of Town and Country; two daughters, Beverly Fabian of Town and Country and Susan Cameron of Murfreesboro, Tenn.; three sons, Leonard W. Fabian Jr. of Murfreesboro, and Edward and Ronald Fabian, both of Ballwin; a brother, Herman Fabian of North Little Rock; two sisters, Catherine McCrory and Ruth Fabian, both of Little Rock; and eight grandchildren.

Campus Authors

The following is a recent release available at the Campus Bookstore in Mallinckrodt Center on the Hilltop Campus or at the Washington University Medical Bookstore in the Olin Residence Hall. For more information, call 935-5500 (Hilltop Campus) or 362-3240 (School of Medicine).

Lesbian philosophy is the focus of a new book by **Joyce Trebilcot**, Ph.D., former coordinator of women's studies and associate professor of women's studies and philosophy. In the preface the author writes that *Dyke Ideas: Process, Politics, Daily Life* springs from her puzzlement or pain or hope. "Why do I behave as I do? Why do I have a particular belief or value? Why, on some subjects, are some lesbians so different from me?" She also wrote the book to connect with "wimmin" — women separate from men and men's inventions. The author explores guilt, competition, sex and other topics in ways that reject male values and move toward "wimmin"-identified cultures. She disavows what she terms the authoritarian, God's-eye stance typical of academic writing in favor of an approach that denies that others "should" accept her beliefs. Persuasion is tyranny, Trebilcot thinks, so she tries not to interfere with a reader's processes of creating/discovering her own ideas. She suggests that lesbian philosophy is like a potluck: "wimmin" bring their own contributions and also help themselves to the offerings of others. (State University of New York Press, Albany)



Joyce Trebilcot

Introducing new faculty members

The Record is running a series profiling new faculty on the Hilltop and Medical campuses.

William B. Dawson, M.D., assistant professor of radiology at the School of Medicine's Mallinckrodt Institute of Radiology, comes from Muskogee, Okla., where he was a medical adviser to the radiological technology program at Bacone College and a radiologist at the Muskogee Regional Medical Center and the Veteran's Administration Regional Medical Center. He is a clinical track faculty member. He received a bachelor's degree in 1969 from Tulane University in New Orleans and a medical degree from the University of Oklahoma in Norman in 1973.

Opportunities & personnel news

Hilltop Campus

The following is a list of positions available on the Hilltop Campus. Information regarding these and other positions may be obtained in the Office of Human Resources, Room 126 North Brookings Hall, or by calling 935-5990. Note: All positions require three letters of recommendation.

Administrative Assistant

940198. *Medical Alumni and Development Program*. Requirements: Some college; maturity, judgment and diplomacy are essential; excellent communication skills, both oral and written; ability to communicate cordially and effectively with public constituencies, including deans, department heads, division chiefs and senior faculty and administrators; ability to deal with confidential information in a responsible and professional manner; ability to balance and prioritize diverse assignments; three years of general office experience preferred; excellent writing and proofreading skills; proficiency with personal computer software, such as Microsoft Word for the Macintosh, Filemaker Pro, Lotus 1-2-3 or Microsoft Excel; typing 45 wpm with accuracy. Clerical tests required.

Receptionist/Secretary

940199. *Department of English*. Requirements: High school graduate; a cheerful and courteous disposition; flexibility, attentiveness to detail, ability to set priorities and work on numerous tasks with constant interruption; working knowledge of university procedures preferred; general office experience; typing 50 wpm with accuracy. Clerical tests required.

Services Coordinator

940200. *The Software Library*. Requirements: University degree with technical background; experience in customer relations and/or in services organization; demonstrated ability to use computing tools for business management; ability to manage technical information and provide services in a multiplatform and multivendor computing environment; excellent interpersonal and communications skills. Resume required.

Department Secretary

940201. *Department of Philosophy*. Requirements: High school graduate; typing 50 wpm with accuracy. Duties: type occasional correspondence for faculty members;

receive telephone calls and personal callers for the department; answer routine inquiries; type the semester course listings for philosophy department and do preliminary schedule for the days, times and rooms for each course; maintain and operate copying equipment and postage meter; mail graduate school applications and maintain files of students applying for admission; requisition supplies from central stores; copy and mail placement applications; establish, maintain and revise departmental files. Clerical tests required.

Communications Technician I

940202. *Communications Services*. Requirements: High school graduate, some college preferred; training and/or experience in concepts of operation and maintenance of communications equipment; strenuous work and heavy lifting; flexible hours and overtime required; use of personal vehicle required with mileage reimbursement. Resume required.

Administrative Assistant III

940206. *Performing Arts*. Requirements: Bachelor's degree, master's degree preferred. Duties: administer departmental budget; responsible for all accounting functions, purchasing and allocations; serve as producer for all performing arts department productions; appoint, hire and write job descriptions for work/study students; responsible for on-campus recruiting for prospective freshmen; administrator of summer theatre in London program; process payroll and maintain payroll records; serve as undergraduate adviser for drama majors (as needed); administer arts management internships; administer external rentals of facilities (studios, classrooms); schedule and supervise musical accompanists. Clerical tests required.

Executive Secretary

940207. *Alumni and Development Programs*. Requirements: College degree or equivalent knowledge; three years general office experience; strong background in personal computing; excellent oral and written communication skills; professional manner with co-workers, volunteers and vendors; ability to deal with multiple tasks in an organized, accurate and timely manner with minimum supervision; willingness to work extra hours when necessary; typing 60 wpm with accuracy. Clerical tests required.

Departmental Secretary

940210. *Major Gifts*. Requirements: Some college or other research-related experience; strong capacity to use online data bases and library-related sources of information; typing 50 wpm with accuracy; proofreading skills; capacity to conduct and keep track of several jobs at once with a flair for detail; good oral and written communication skills; professional telephone skills. Clerical tests required.

Administrative Assistant

940212. *Board of Trustees*. Requirements: Some college; typing 50 wpm with accuracy; efficient in word processing and data processing; creative in using and improving existing lists and forms, as well as devising new ones; enjoy bookkeeping, both keeping track of budgets and expenses and preparing reports for the Board of Trustees account; skilled in proofing minutes and reports; appreciate needs for accuracy, even in routine things; interested in maintaining an organized filing system for efficient retrieval; pleasant with fellow workers and external constituencies on the phone; willing to work occasionally outside of office hours for setting up meetings. Clerical tests required.

Coordinator, Donor Relations

940213. *Major Gifts*. Requirements: Bachelor's degree; excellent oral communication and interpersonal skills; self-motivated with attention to detail; ability to pleasantly overcome objections and be effectively persuasive with prospects; ability to work effectively with volunteers, donors and prospects, and university staff; able to deal with multiple priorities with minimal supervision; knowledge of university systems and personnel would be helpful; minimum of five years experience in university or high-level service industry or business setting; familiarity with word processing techniques; ability to analyze, condense confidential information on major prospects and provide concise documentation; typing 60 wpm with accuracy. Clerical tests required.

Lab Technician

940219. *Biology*. Requirements: Bachelor's degree; responsible, independent; willing to be trained in plant genetics, bacteriology and molecular biology. Resume required.

Seismic Data Entry Assistant

940221. *Earth and Planetary Sciences*. Requirements: Some college, bachelor's degree preferred; experience with handling seismic data preferred; experience with data entry and automatic data processing desirable; accuracy in transcribing numerical information; ability to learn computerized data entry and analysts procedures. Resume required.

Medical Campus

The following is a partial list of positions available at the School of Medicine. Employees who are interested in submitting a transfer request should contact the Human Resources Department of the medical school at 362-4920 to request an application. External candidates may call 362-7195 for information regarding application procedures or may submit a resume to the Human Resources office located at 4480 Clayton Ave., Campus Box 8002, St. Louis, Mo., 63110. Please note that the medical school does not disclose salary information for vacancies, and the office strongly discourages inquiries to departments other than Human Resources.

Departmental Administrator

940553-R. *Biochemistry*. Requirements: Bachelor's degree with accounting or business administration preferred; five years experience in office/personnel/financial management; experience working in a university setting preferred; strong analytical, numerical, oral and written communication skills.

Statistical Data Analyst

940580-R. *Psychiatry*. Requirements: Master's degree in math, computer science, data processing or related field; one to two years related experience; knowledge of WordPerfect, spreadsheets, LANS, DOS and UNIX; ability to use PC graphics packages for production of presentation-quality graphics and familiarity with large data base management.

Medical Research Technician

940581-R. *Pathology*. Requirements: Bachelor's degree with background in cell and molecular biology and/or biochemistry; one to two years lab experience; ability to work independently under guidelines from supervisor; tissue culture, protein purification, DNA and RNA analyses skills.

Medical Research Technician

940583-R. *Psychiatry*. Requirements: Bachelor's degree with knowledge of all theoretical aspects of molecular biology; interest in genetics; practical experience with PCR and DNA sequencing (automated DNA sequencer or manual gels) preferred.

Medical Research Technician

940586-R. *Cell Biology*. Schedule: Full-time with occasional evenings and weekends. Requirements: Bachelor's degree in biology, chemistry or related field; one to two years experience as a lab technician; knowledge of molecular biology; knowledge of techniques in working with DNA.

Staff Therapist

940599-R. *Psychiatry*. Schedule: Part-time, 10 hours per week, variable. Requirements: Master's degree; counseling experience; knowledge of medical terminology, diagnosis, procedures.

Medical Secretary

940601-R. *Psychiatry*. Schedule: Part-time, 22.5 hours per week. Requirements: High school graduate or equivalent; post-high school education/training desired; excellent verbal and written communication skills; experience in proofreading, composing and patient scheduling; familiarity with IBM/WordPerfect; typing 65 wpm.

Human Resources Associate, Recruitment

940606-R. *Administration*. Requirements: Bachelor's degree or three years related experience, emphasis on human resources, behavioral sciences or life sciences; good verbal communication skills; ability to interpret or search out skill requirements indicated on personnel requisitions.

Compensation Specialist

940607-R. *Administration*. Requirements: Bachelor's degree or equivalent education/experience in human resources, business or behavioral science; knowledge of wage and salary laws; good judgment, discretion, communication skills; familiarity with WordPerfect 5.1.

Garage Attendant

940632-R. *Transportation*. Schedule: Part-time, 17 hours per week, 4:30 p.m. to 1 a.m. Saturdays and Sundays. Requirements: High school graduate or equivalent; cashier experience preferred; good interpersonal and communication skills to serve heavy customer volume.

Secretary/Receptionist

940642-R. *Psychiatry*. Requirements: High school graduate or equivalent, post-high school training helpful; good grammar skills, phone manners and ability to work under pressure; experience on WordPerfect; typing 40 wpm.

Minority Affairs Assistant

940650-R. *Minority Student Affairs*. Requirements: High school graduate or equivalent, some college preferred; three to five years experience in a college/university setting; experience on WordPerfect 5.1; typing 55 wpm.

Green permit now first-come, first-serve — from page 1

associate University registrar. "In the past, people have won green permits through the lottery, decided they aren't convenient and paid for a red or yellow permit. That makes people who really need it miss out."

The committee also approved an additional two-year parking fee schedule. In the 1995-96 academic year, parking will cost \$450 for red permits; \$260 for yellow; blue and brown permits; \$170 for green permits; \$105 for purple permits; and \$50 for evening and summer school permits. In the 1996-97 school year, it will cost \$470 for red permits; \$270 for yellow, blue and brown permits; \$175 for green permits; \$110 for purple permits;

and \$54 for evening and summer school permits.

Gaines said the committee is considering using some of the fees for future improvements in lighting for parking lots, more outdoor telephones and strategically located speed bumps.

"The improvements being looked at are intended to keep the campus as safe as possible," Gaines said.

Income from parking fees, in addition to funding the Transportation Department, also pays for the garage debt service, shuttle service to the West Campus and street and parking lot maintenance. Permits for the 1994-95 school year will go on sale in August.

Annual Fees for Parking Permits

Permit type	1993-94	1994-95	1995-96	1996-97
Red (faculty, staff)	\$410	\$430	\$450	\$470
Yellow (faculty/staff, non-resident students)	\$230	\$250	\$260	\$270
Blue (fraternity and Millbrook Apartments)	\$230	\$250	\$260	\$270
Brown (South Forty residence hall students)	\$230	\$250	\$260	\$270
Green (faculty/staff, graduate students)	\$155	\$165	\$170	\$175
Purple (off-site shuttle faculty/staff, students)	\$ 90	\$100	\$105	\$110
Evening (after 4 p.m. faculty/staff, students)	\$ 40	\$ 45	\$ 50	\$ 54
Summer School (faculty/staff, students)	\$ 40	\$ 45	\$ 50	\$ 54