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RECORD



Washington
WASHINGTON · UNIVERSITY · IN · ST. LOUIS

Vol. 13 No. 13/Dec. 1, 1988



A recent study at Washington University shows that training new parents to use simple behavioral strategies results in their infants sleeping through the night sooner than usual.

Training tots Simple strategies to help babies (and parents) sleep through the night

For most new parents, nothing seems so elusive — or so desperately needed — as a good night's sleep. But how to convince a wakeful young baby to cooperate?

The answer, according to a recent study at Washington University, is a sensible system of encouragement. Doctoral research by Amy R. Wolfson, Ph.D., has demonstrated that training new parents in simple behavioral strategies can have a dramatic impact on their baby's sleep patterns and on their own emotional health. These findings were presented last month at the annual meeting of the Association for the Advancement of Behavior Therapy in New York City.

Wolfson's study, called "The Effects of Parent Training on the Development of Infant Sleeping Patterns," emphasized a preventive approach. She trained small groups of first-time parents in four pre- and post-natal sessions. Then she compared the experiences of these parents with those of untrained counterparts, first when their babies were six to nine weeks old, and again at four to five months.

The strategies she suggested were aimed at persuading babies to become "independent sleepers," says Patricia E. Lacks, Ph.D., Wolfson's graduate adviser and a sleep specialist. "You want babies to learn to put themselves to sleep and, if they wake up in the night, to get themselves back to sleep."

But the training also had a subtler purpose: to instill more confidence in anxious new parents. If they were educated about infant sleep patterns,

reasoned Wolfson and Lacks, these parents should feel more in control of their baby's sleep schedule. Parents should wake up less often, for example, and respond less often to the child's whimpering.

The results showed vividly that parent training achieved both goals. At the six- to nine-week check, infants in the training group had begun sleeping through the night much sooner than those in the untrained group. At four to five months, their sleep remained better. And their parents reported feeling more competent and less stressed in handling their babies' sleep schedules. Like many new parents, however, both groups also reported decreased marital satisfaction during their transition to parenthood.

"Clearly, preventive parent training has a powerful influence on the maturation of infant sleeping patterns," says Wolfson, who is now a post-doctoral research associate in the psychology department at Stanford University.

To begin the study, Wolfson recruited 60 couples from LaMaze childbirth classes at St. Mary's Health Center in St. Louis. They were a homogeneous group: mostly middle-class, college-educated, working; and all married, 21 to 40 years old, and first-time parents. She randomly assigned 29 to the training group and 31 to the control group.

The trainees met for two prenatal sessions in which they received training and completed questionnaires. Two post-natal sessions followed

Continued on p. 2

Gary Hochberg is appointed admissions interim director

Gary M. Hochberg, Ph.D., associate dean for the undergraduate program in the John M. Olin School of Business, has been appointed interim director of admissions. The appointment, effective immediately, was announced by Provost Edward S. Macias, Ph.D., who also chairs a search committee that seeks a permanent director/dean of admissions.

Hochberg will divide his time between the admissions office in Brookings Hall, and Simon Hall, where he will continue his business school responsibilities. As interim director of admissions, Hochberg is responsible for undergraduate recruiting and admissions.

"Gary Hochberg is an excellent choice for interim director because of his experience as head of the undergraduate business program, his liberal arts background, and his administrative abilities," said Macias.

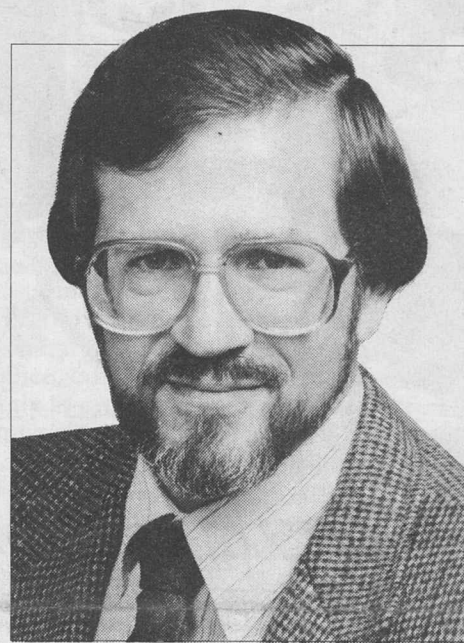
A. Van L. Brokaw, associate vice provost for enrollment management, called Hochberg's appointment an asset to the admissions program. "The admissions staff has had excellent recruitment seasons in recent years, and I look forward to the input and energy that Gary will add to the process," he said.

Hochberg came to Washington University as assistant dean for the undergraduate program at the business school in 1982, and has been associate dean since 1986. From 1971 to 1981 he taught philosophy at Bucknell University. For several years during that

period he directed Bucknell's freshman humanities semester.

The native of Washington, D.C., received his undergraduate degree cum laude from American University in 1967, attended the University of Freiburg in West Germany from 1967 to 1968, and received a master's degree and a doctorate in philosophy from Brown University in 1970 and 1971.

Hochberg, the author of many papers on philosophy and ethics, also wrote *Kant: Moral Legislation and Two Senses of 'Will'*, published by the University Press of America in 1982.



Gary M. Hochberg

Gerald Early receives second national writing award within two weeks

Gerald L. Early, Ph.D., assistant professor of English and African and Afro-American studies, has won a \$5,000 General Electric Foundation Award for Younger Writers. He received the award for two essays that were published in *Cottonwood*, the literary journal of the University of Kansas.

The General Electric award marked the second time in less than two weeks that Early had received a national writing award. On Oct. 27, he was awarded the \$25,000 Whiting Writer's Award from the New York-based Mrs. Giles Whiting Foundation. The Whiting award recognizes writing potential and literary achievement. Both the Whiting and General Electric awards are given unconditionally.

Early will receive the General Electric Award in a ceremony on Dec. 5 at the Pierpont Morgan Library in New York. At the ceremony, he will read a 10-minute excerpt from "Review Essay of Good Morning Blues: The Autobiography of Count Basie," one of his winning essays. The other winning essay is titled "Some Notes Toward the Genealogy of Afro-American Life: A Conversation with Audrey Jones." Jones is a former dancer and singer who lives in Lawrence, Kan.

Early is one of six writers from across the country to receive the General Electric Foundation Award, which acknowledges excellence and promise in younger creative writers and offers support for the literary magazines that publish their work. Last year's award winners included Rita Dove (poetry), who also won a Pulitzer Prize for poetry in 1987.

The Coordinating Council of Literary Magazines (CCLM) presents the awards, which are underwritten by the General Electric Foundation in Fairfield, Conn. The \$5,000 prizes are

given to the best writers of fiction, poetry and literary essays nominated by the editors of the literary magazines in which their work appears. Companion prizes of \$2,000 are awarded to each winner's nominating magazine.

The editors who serve as nominators for the General Electric awards are members of CCLM. A five-member panel reviewed the work of 178 nominees from across the country.

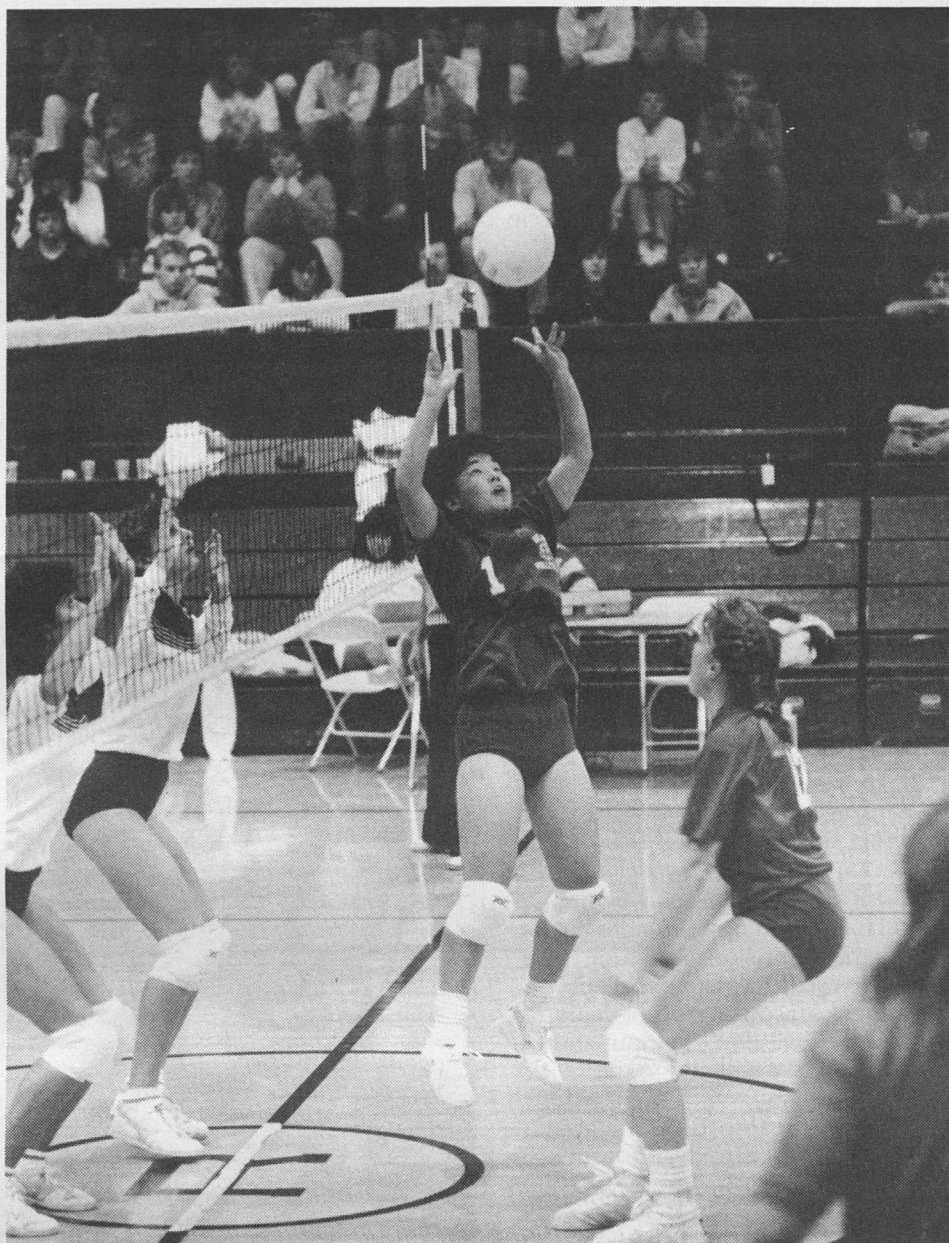
Early's award-winning essays were published in a special 1986 issue of *Cottonwood*, titled "Contemporary Black Writers: Celebrating 125 Years of Kansas Statehood." The issue focused on Afro-American writers in the Midwest.

Early, who has been a member of the Washington University faculty since 1982, specializes in 19th-century American literature and 19th- and 20th-century Afro-American literature with emphases in the Afro-American autobiography, slavery, the social and cultural history of jazz, and sports literature. He has lectured on these topics and has published many essays, reviews and poems.

In October 1989, Ecco Press in New York will publish Early's collection of essays titled "Tuxedo Junction: Essays Towards a Cultural Definition of America." In 1990, Ecco will publish his work titled "The Culture of Bruising: Essays on Literature, Prizefighting and Modern American Culture."

Early's other works in progress will focus on jazz in Kansas City, Mo., American women and the political aspects of American slavery, and the late writer Richard Wright.

Early received a bachelor's degree in English literature (cum laude) from the University of Pennsylvania in 1974. He has a master's degree (1980) and doctorate (1982) in English literature from Cornell University.



Lori Nishikawa (1) is the University's first athlete to be named Player of the Year for Division III.

Player of the year

Lori Nishikawa earns highest honor

Junior Lori Nishikawa has been selected by the American Volleyball Coaches Association (AVCA) and Reebok as the 1988 Player of the Year for Division III.

The selection marked the first time that a Washington University athlete from any sport has been honored as the premiere player in the nation.

Nishikawa, a 5-foot-2 setter from Lawrence, Kan., earned volleyball's equivalent to the Heisman Trophy for her inspired playmaking abilities in leading the Bears to a 37-4 record this year and a number-three ranking in the final NCAA Division III national poll.

Among her accomplishments this season were a team-high 1,193 assists, 368 digs and 77 service aces. Nishikawa ranks first on the Bears' career charts with 3,116 assists and 213 aces, and second with 999 digs.

"Lori is the finest defensive player and setter I've seen at this level," said Bear head coach Teri Clemens, whose teams with Nishikawa in the lineup have gone 127-20. "She's an incredible player. I believe she is one of the finest players I've seen at any level."

Joining Nishikawa on the AVCA/Russell Athletic All-America first-team is Washington University junior Brooke Hortin. The 5-10 outside hitter from Albion, Ill., was a second-team selection last season. Hortin ranks first on the Bears' career list with 1,382 kills and 1,031 digs.

In addition, sophomore Dianne Stites was chosen as a second-team All-America. The 5-11 middle blocker from Dexter, Mo., led the Bears with a school-record 283 total blocks this season.

"What is most phenomenal," Clemens said, "is that we had All-Americans picked at all three positions — setter, outside hitter and middle

blocker. All season, opposing coaches have been saying that they could not pinpoint one particular weakness, and these honors really illustrate that fact. The exciting thing is that all three players return next year."

The Player of the Year and All-America announcements helped ease some of the disappointment of Washington's early departure at the NCAA National Tournament. The Bears were defeated in the regional final by second-ranked University of Wisconsin-Whitewater. It marked the second consecutive season that the Bears have been ousted in the round of Elite Eight.

RECORD

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Holiday concerts abound

The Department of Music will help ring in the holiday season by hosting several free concerts.

In the first concert, the Washington University Collegium Musicum will perform at 8 p.m. Saturday, Dec. 3, in Graham Chapel.

The collegium comprises University students and faculty, as well as members of the St. Louis community. The group is directed by Bruce Carvel.

The Mixed Choir will perform Christmas and seasonal music at 8 p.m. Thursday, Dec. 8, in Graham Chapel.

The evening's program will include "Gloria" from "The Masque of Angels" by Argento; "Peaceful Was the Night," by Eugene Butler; "Freut Euch Unt Jubiliert," by Calvisius; and "Hallelujah," from Cantata 142, by J.S. Bach. The choir also will perform "Sing, Sing Ye Muses," by John Blow, to the accompaniment of two oboes; and Daniel Pinkham's "Christmas Cantata," with a brass choir and organ.

Soloists for the concert will include Libby Estes of the Saint Louis Symphony Orchestra. Elaine Ho, Bobbi Jo Graham and Shawn Bell also will perform solo numbers, including several arias from Handel's "The Messiah."

The choir includes some 55 members who come from throughout the St. Louis area, as well as from the University community. The group is directed by Sally Herman.

Herman has taught workshops and has conducted festival choirs throughout the United States. She is a past recipient of the Luther T. Spayde Award, presented annually to a Missouri choir director for outstanding contribution to the choral art. The concert marks her debut as director of the Mixed Choir.

The Washington University Chamber Choir will present a Christmas Concert at 8 p.m. Friday, Dec. 9, in Graham Chapel.

The program will feature "The Christmas Story," a work by German composer Hugo Bistler. The story of Christ's birth is retold in this 30 minute-long choral composition.

The choir will explore the traditional story as it is related by Bistler's modern piece and in the Christmas carols of past generations.

The choir also will sing motets from the 16th and 17th centuries. The motet, a combination of independent voices, melodies and rhythms, arose in the 13th century. The motet later gained a prominent religious role in its Renaissance and Baroque forms.

The chamber choir, formerly called the Madrigal Singers, incorporates 19 voices. The choral director, Louis Schuler, Ph.D., earned his doctorate in music at Washington.

In addition, the Washington University Wind Ensemble, directed by Dan Presgrave, will participate in the Christmas Carols Festival to be held at 7:30 p.m. Saturday, Dec. 10, and at 2 p.m. Dec. 11 in Kiel Auditorium. The festival, which will benefit 75 children's charities, is in its ninth year.

Alan Rosenkoetter, who is an instructor in guitar for the music department, also will perform in the festival, which will feature more than 1,000 singers, dancers, musicians and local celebrities.

Tickets for the festival are \$4-6 and can be purchased at the Kiel Box Office, Famous-Barr and other Tickets NOW locations.

For more information about any of the above concerts, call the Department of Music at 889-5581.

Sleep strategies — continued from p. 1

when the babies, all born between September 1986 and January 1987, were "settling-ready": weighing nine to ten pounds, gaining weight, healthy, and at least six weeks old. At the first follow-up session, parents were given daily "infant sleep diaries" to keep for three weeks; at the second, they received one-week diaries.

In developing the training, Wolfson and Lacks adapted tactics suggested in the book *Helping Your Child Sleep Through the Night*, by Joanne Cuthbertson and Susie Schevill, published in 1985. These strategies are also outlined in an award-winning videotape, based on the book.

At Wolfson's two prenatal sessions, she focused on infant behavior during the early weeks and on steps parents can take to help prepare their infant son or daughter for sleeping through the night:

- Don't hold, rock, or nurse the baby to sleep. Wrap the baby snugly and allow it to fall asleep on its own. Put the baby to sleep in its own bed.
- Teach the baby the difference between day and night. Limit daytime nap periods and play with it often. During naps, don't darken the room; allow normal household noises to continue. Don't stimulate the baby just before bedtime and don't turn on its light at night.

- Establish one late-night "focal feeding" just before your own bedtime, even if you must wake the baby up to provide it. With a full stomach, the baby should sleep longer.

- Wait to pick up the baby until it is really complaining. Don't rush in at the first whimper; the baby may be able to "self-soothe," and get back to sleep on its own.

At her second prenatal session,

Wolfson discussed a four-night program that parents can use to convince "settling-ready" babies to sleep through the night. The plan involves providing a later focal feeding; stretching the time between middle-of-the-night feedings; and waiting to go to a fussing baby.

The two post-natal sessions reinforced these techniques and gave parents a chance to discuss problems. While control groups did not receive any training, they completed the same questionnaires and diaries that the trainees did.

This study had its roots in seven years of adult insomnia treatment studies done by Lacks. On the average, her subjects had a 14-year history of insomnia, but many had been fighting the problem for up to 40 years.

That led Lacks and Wolfson to wonder whether encouraging good sleep in young babies might establish sound sleep patterns that would persist throughout their lives. And the parents would benefit immediately from reduced stress in the early months.

In fact, adds Lacks, a sleep routine is healthy not just for babies, but for children too. They derive security from a predictable schedule that includes regular times to wake up, eat meals and go to bed. When bedtime becomes a negotiable issue each night, it's exhausting for parents and children alike.

More study is needed, she adds, to see whether babies who learn to go to bed with little fuss, and sleep well, also grow up with a reduced rate of insomnia. But at least the immediate benefits are clear. "It gives the whole family a better launching," says Lacks, "if the baby sleeps well earlier."

Candace O'Connor

NOTABLES

Garland E. Allen, Ph.D., professor of biology, has been appointed to a three-year term on the Committee on Fellowships for Fulbright Travel and Lecture Grants in the History of Science.

Merton C. Bernstein, LL.B., Walter D. Coles Professor of Law, wrote a letter to the editor that appeared in the Oct. 17 New York Times. The letter defended the Social Security system.

Glenn C. Conroy, Ph.D., professor of anatomy and anthropology, has been invited to serve a three-year term on the Area Advisory Committee for Africa on the Council for International Exchange of Scholars (CIES). The council's principal responsibility is to nominate candidates for senior Fulbright awards abroad. The Board of Foreign Scholarships, which oversees the council, is composed of 12 educational and public leaders appointed by the U.S. president. The board formulates the Fulbright program's administrative policy. Since 1947 the CIES has aided in the exchange of more than 23,000 American scholars and 26,000 visiting scholars.

Nicholas T. Kouchoukos, M.D., John M. Shoenberg Professor of Cardiovascular Surgery and surgeon-in-chief of Jewish Hospital at the Washington University Medical Center, was a featured speaker at the annual meeting of the Argentine Society of Cardiology on Oct. 10-12 in Buenos Aires, Argentina. His lectures included "Surgical Treatment of Ascending Aortic Dissection," "Cerebral Monitoring During Hypothermic Circulatory Arrest for Resection of Aortic Arch Aneurysms" and "Surgical Treatment of Descending Thoracic Aortic Aneurysms." He also was a guest of the 10th International Seminar of the Cyprus Society of Cardiology on Oct. 29 and 30 in Nicosia, Cyprus. His presentations included "Coronary Artery Surgery in the Angioplasty Era" and "Surgical Considerations in Ischemic Heart Failure."

Stanton D. Krauss, J.D., associate professor of law, has been invited to give a faculty seminar next semester at the University of Cincinnati Law School. The seminar is based on a work in progress concerning whether the Sixth Amendment is violated by the current practice of disqualifying jurors unwilling to apply the criminal law. Krauss' article "Death Qualification After *Wainwright v. Witt*: The Issues in *Gray v. Mississippi*" was published in Vol. 65 of the Washington University Law Quarterly.

Udo Kultermann, Ph.D., the Ruth and Norman Moore Professor of Architecture, recently delivered a lecture, titled "Ruins and Labyrinthine Visions of Cities," at the American Collegiate Schools of Architecture West Central Regional Meeting in Kansas City. Also participating in the meeting were **Brian McLaren**, visiting associate professor of architecture, and **Neal Payton**, visiting associate professor of architecture. McLaren delivered a lecture titled "Other Place(s)" and Payton's lecture was on "Why Romulus Killed Remus and Other Tales of the Urban Edge." The meeting, titled "Design for Urban Places," explored both traditional and current forms of design intervention in urban places. In addition, Kultermann delivered a lecture on "The Foundation of Deconstruction. Martin Heidegger and Architectural Theory" on Nov. 15 at the University of Arkansas School of Architecture, in Little Rock.

Paul E. Lacy, M.D., Ph.D., Robert L. Kroc Professor of pathology, recently

received an alumni achievement award at the Ohio State University annual Medical Alumni Reunion. The alumni achievement award recognizes medical graduates of Ohio State who have made contributions in their respective fields. Lacy received his bachelor's, master's and medical degree from Ohio State.

Daniel R. Mandelker, J.S.D., Howard A. Stamper Professor of Law, has published the second edition of *Land Use Law* by the Michie Co. Callaghan has published the 1988 Supplement to his *NEPA Law and Litigation*. Mandelker recently spoke at land use law workshops in Raleigh, N.C., and Kansas City. He attended an Urban Land Institute meeting in Washington, D.C., on downtown development.

Helen W. Power, Ph.D., adjunct assistant professor of Women's Studies, has written the lead article, "Women on Language; Women in Language," in the autumn issue of *Verbatim: The Language Quarterly*.

Marie Roessler, business manager for business affairs, has been chosen to participate in the "Leadership for the New Century" program, a national leadership training program for four-year college and university women. As part of the yearlong program, a special workshop for "leaders" is designed to enhance the skills that leaders need to assume major decision-making roles. The leaders were chosen for their talents, interest in advancement in higher education and the quality of their proposed projects. **Peter Ruger**, general counsel at the University, will mentor Roessler. Roessler will work on projects that will aid the institution and foster individual professional growth. The program is sponsored by the National Institution for Leadership Development and Arizona State University, and the workshop is conducted in Phoenix, Ariz.

E. Thomas Sullivan, J.D., professor of law, wrote an essay titled "Antitrust Law: Is it Dead?" that appeared in the Oct. 3 issue of the National Law Journal.

Suzanne Wilson, a doctoral candidate in comparative literature, delivered a paper, titled "What to Do When Your Text Is Open and Your Translation Is Closed: Poetics of Translation in l'écriture feminine," at the 11th Annual American Literary Translators Association at the City University of New York Graduate Center. A paper she wrote has been accepted for presentation at the 23rd International Conference on Medieval Studies in Kalamazoo, Mich.

Robert Wiltenburg, Ph.D., assistant professor of English, attended the Eighth Biennial Renaissance Conference held Oct. 20-22 at the University of Michigan-Dearborn. The conference was devoted to the topic "The Achievement of Andrew Marvell." Wiltenburg presented a paper titled "Translating All That's Made: Poetry and History in *Tom May's Death*."

Have you done something noteworthy?

Have you: Presented a paper? Won an award? Been named to a committee or elected an officer of a professional organization? The Washington University Record will help spread the good news. Contributions regarding faculty and staff scholarly or professional activities are gladly accepted and encouraged. Send a brief note with your full name, highest-earned degree, current title and department along with a description of your noteworthy activity to Notables, Campus Box 1070, or by electronic mail to p72245SS at WUVMC. Please include a phone number.

Faculty, administrative appointments

The following is the continuation of an alphabetical listing of new Hilltop and dental school faculty and administrative staff appointments, as of Sept. 26, 1988. The new appointments list was compiled by the faculty records office.

William F. Malone, professor in restorative dentistry;

Jeffery S. Matthews, artist-in-residence;

Leighton Edwin McCormick, director of special projects;

Elizabeth T. McNulty, assistant law librarian for public service;

Jeffrey S. Mehlman, visiting professor of French;

Betsy Jane Morris, assistant professor of art;

Herbert Neuberger, associate professor of physics;

Anthony J. Nowak, director of residential life;

Rami J. Pinsberg, instructor (P-T) in Jewish & Near Eastern studies;

Stephen Joseph Polityka, adjunct professor of law;

Laura H. Ponte, assistant director, alumni programs;

Marvin E. Reed, director, Career Center;

William David Richard, assistant professor of electrical engineering;

Arthur S. Ridley, artist-in-residence in performing arts;

Luanne Rimel, lecturer (P-T) in art (fashion design);

Yacov Rofe, visiting professor of psychology;

Paul Jonathan Rosenzweig, visiting associate professor of English;

Paul Rothstein, assistant professor in economics;

Marianne B. Schali, visiting assistant professor of architecture;

Elizabeth W. Scharffenberger, assistant professor of classics;

Frank R. Schlossbauer, visiting assistant professor in Germanic languages and literatures;

Daniel M. Schneider, visiting professor of law;

Serenella Sferza, assistant professor of political science;

Hunter Shu, affiliate professor of mechanical engineering;

Marcia C. Smith, assistant professor of psychology;

Jack Sonn, visiting professor of mathematics;

Gilles Alain Spenlebauer, visiting scholar in chemical engineering;

Sharon Stahl, coordinator Honorary Scholars Program;

Joseph J. Stefanelli, visiting professor of art (painting);

Wai-Mo Suen, assistant professor of physics;

Enrique A. Susemihl, visiting scholar, mechanical engineering;

Patrick Suzeau, artist-in-residence in dance;

Richard Merle Thevel, assistant professor of military science;

Jelle E. Thole, visiting research associate in biology;

Joyce M. Thomas, lecturer in education (P-T);

Melanie Ann Throckmorton, lecturer (P-T) in performing arts;

Branislav Tomich, artist-in-residence;

Gary E. Varner, visiting assistant professor in philosophy;

Susan O. Warshaw, lecturer (P-T) in social work;

Robert Karl Weninger, visiting assistant professor of comparative literature;

Paula Sue Wepprich, lecturer (P-T) in art (fashion);

Steven C. Williams, lecturer in art, advertising design;

Mary Jane Woebler, lecturer (P-T) in art (fashion);

Clarence John Wolf, affiliate professor of chemical engineering; and

Debra C. Wood, assistant dean for student affairs.

Auditions to be held for four plays

The Performing Arts Department will hold auditions for four plays during the first week of December. The plays, which will be staged during the spring semester, are Edward Albee's "The Zoo Story" and "The American Dream"; William Shakespeare's "A Midsummer Night's Dream"; and a children's play, "The Magician's Nephew."

The auditions will be held from 2-5 p.m. Saturday, Dec. 3, and from 7-10 p.m. Sunday and Monday, Dec. 4 and 5, in Edison Theatre.

Auditions are open to students and faculty, as well as members of the St. Louis community.

Students Rick Watson and Christo-

pher Sanders will direct "The Zoo Story" and "The American Dream," respectively. The plays will be presented in the Drama Studio Feb. 17-26, 1989.

A mainstage production of "A Midsummer Night's Dream" will be directed by Henry I. Schvey, Ph.D., chairman of the Performing Arts Department. It will be presented in Edison Theatre March 31 through April 9, 1989.

"The Magician's Nephew," to be directed by senior Wendy Stojeba, will tour area schools in the spring.

For more information about the auditions, call 889-5858.

NEWSMAKERS

Washington University faculty and staff make news around the globe. Following is a digest of media coverage they have received during recent weeks for their scholarly activities, research and general expertise.

To commemorate the 100th birthday of St. Louis-born poet T.S. Eliot

Washington University hosted scholars from around the globe at a conference Sept. 30 to Oct. 2. Articles about Eliot and the conference appeared in the Sept. 26 issue of *Time*, the Sept. 21 *USA Today*, the Sept. 23 *Philadelphia Inquirer*, the Sept. 18 *San Diego Union*, and the Sept. 18 *Virginian-Pilot Ledger Star* (Norfolk, Va.).

The competitive wind in the beer business is blowing out of the Far East, says an article about Japanese "dry" beer that appeared in the Sept. 12 issue of *Adweek*. Robert S. Wein-

berg, Ph.D., professor of marketing, says in the article that dry beer "is a wild idea." And about Anheuser-Busch Brewery's plan to produce an American version, he says, "It's exciting that Anheuser-Busch is showing a willingness to probe the market." Another article quoting Weinberg about dry beer appeared in the Aug. 31 *Seattle Times*.

Altitude sickness (including headaches, nausea and sometimes blackouts) is caused by too little oxygen to the brain. Marcus Raichle, M.D., professor of neurology, says that a whiff of carbon dioxide may help by dilating blood vessels and returning blood circulation to normal levels. Initial findings show that several minutes of breathing into a small closed tube may be all it takes. Raichle's discovery was reported in the Oct. 23 *Denver Post*.

MEDICAL RECORD

Pumping up muscle

Goodbye anabolic steroids — hello electricity

American athletes lured into use of anabolic steroids are soon likely to have another method — completely legal and non-chemical — to increase their muscle strength. A physical therapist at the School of Medicine has perfected a technique for high intensity electrical stimulation of muscles, long used by Soviet bloc nations, that is safer and more effective than the illegal drugs.

The technique, called neuromuscular electrical stimulation, or NMES, has been used for several years to improve the recovery of knee surgery patients. But Washington University physical therapist Anthony Delitto is the first U.S. researcher to obtain substantial results by using NMES on a highly trained athlete.

"NMES may revolutionize the way American athletes are trained," says Delitto. "It could make reliance on steroids completely obsolete, and lead to more gold for U.S. athletes."

Using a custom-built generator, Delitto periodically treated the thigh muscles of Olympic weightlifter Derrick Crass with complex electrical waves of high current during a four-month experiment. Crass, a 28-year-old St. Louis area policeman, received NMES along with his usual weight-training regime while preparing for the Seoul games.

The results, to be published in the International Journal of Sports Medicine next spring, are shocking, literally. After just two weeks of NMES, Crass' lifts improved by as much as 45 pounds. He maintained that gain when taken off NMES for a month, and when NMES was resumed, again dramatically improved in strength. By the end of the experiment, Crass could lift about 85 pounds more on certain exercises, a result Delitto attributes directly to NMES. In fact, Crass raised some eyebrows at the 1988 Olympic trials, where his performance had improved since 1984 beyond anyone's expectations.

"These are extremely preliminary results," Delitto cautions. "We've only tested one athlete so far, and obviously further studies are needed. But strength gains of this magnitude are unquestionably impressive."

"You could take steroids for six months, maybe improve your lift by 20 pounds, and wreck your health in the process," adds Delitto, referring to the life-threatening side effects including liver, heart and kidney damage sometimes suffered by steroid takers. "But the minute you stop using steroids, you lose strength. With NMES, you seem to maintain gains as long as you keep exercising. How much strength you can gain, we don't yet know."

At the 1988 Olympics, sprinter Ben Johnson was stripped of his gold medal for the 100-meter dash after tests showed that he had used anabolic steroids, synthetic male hormones that spur muscle growth by increasing competitive aggression. An estimated one million athletes use the immensely popular drugs.

Persistence Pays Off

Delitto became interested in NMES in the 1970s, when he heard rumors that Russian athletes were using it. The rumors gained substance at the 1976 Olympics when Soviet track and field athletes, in full view of U.S. television cameras, rested between events with electrodes attached to their muscles.

The following year Jakov Kots, the Soviet scientist who developed the NMES technique, spoke at a Canadian-Soviet sports medicine symposium.

Kots claimed that he had used a special type of electrical current to make muscles become 30 to 40 percent stronger than they could through maximum voluntary exercise.

Intrigued, American researchers began using NMES to strengthen muscles. They were modestly successful, but unable to achieve the impressive results Kots had described.

"Kots wasn't about to give away any of his secrets," recalls Delitto. "We knew what he'd accomplished, but not how. We were shooting in the dark, using the wrong equipment, the wrong technique, and testing it on the wrong population."

Discouraged, most researchers gave up. But Delitto persisted, gathering every available translation of Kots' papers to try to duplicate his methods. It took him eight years.

The problem with earlier U.S. studies, Delitto concluded, was that they focused on healthy, non-athletic subjects and weak, post-surgical patients who received relatively low doses of electrical current. Kots, on the other hand, had worked with elite, highly trained athletes — weight lifters, volleyball players, gymnasts, track and field participants — who were strong enough to withstand extremely high levels of current.

"Muscles get stronger when they're forced to work harder than usual," Delitto explains. "The more I investigated Kots' methods, I became convinced that he was using much more power than you can get from conventional therapeutic muscle stimulators, stimulating muscles to contract with more force than they would during voluntary exercise. But we didn't have a machine that could deliver the power without also causing unbearable pain. Apparently, the Soviets did."

Current Pulses Pump Muscles

The solution? Build a machine powerful and complex enough to stimulate major strength increases without causing pain. The VersaStim 380, a prototype built for Delitto by Electro-Med Health Industries in Miami, was produced after several years of trial and error. Like its counterparts in the Soviet Union, the machine's components set it apart from other muscle stimulators used in this country — it produces an extremely high-frequency current that is interrupted about 50 times per second.

"The high frequency blocks sensory nerve response, numbs the skin, and enables the subject to endure high levels of current," Delitto explains, "while the rapidly pulsating current causes incredibly strong muscle contractions that lead to muscle strengthening. The machine is also very powerful, capable of 200 milliamps(rms) of current, compared with other therapeutic muscle stimulators that offer only 10 to 12 milliamps(rms)."

Using 50 to 80 milliamps(rms) — five to seven times the normal dose — Delitto tested the more powerful machine on 20 patients whose leg muscles had been weakened by knee surgery. The results, published last May in the Journal of the American Physical Therapy Association, showed that these patients gained more muscle strength than patients who had relied on conventional voluntary exercise. The normal NMES dose increases strength only about as much as exercise.

Adding NMES To Training Routine

Delitto's next step was to try NMES



Anthony Delitto prepares to administer high intensity electrical stimulation to the thigh muscles of physical therapy student Wanda Brenneman. The procedure may ultimately wipe out the use of anabolic steroids to increase muscle strength.

on a highly trained athlete. He chose Crass, who had recently won the championship title from the U.S. Weightlifting Federation. When Crass came into Delitto's office with a hip injury suffered in the 1987 Pan American games, he'd been lifting weights competitively for 11 years. He had also placed first in the 1984 Olympic weightlifting trials, but dropped out of the games because of injuries.

The experiment began last December. The first month Crass trained as usual, working out three hours a day, six days a week, with weights ranging from 250 to 350 pounds. The second month, Delitto augmented the sessions with NMES. Three times a week, he strapped Crass into an isokinetic dynamometer, a machine that measures muscular force, and attached padded electrodes to Crass's quadriceps (thigh muscles) that play a key role in lifts such as the front squat, the snatch, and the clean-and-jerk. Current was applied 10 times to each thigh, with each jolt lasting 11 seconds and followed by a three-minute rest period.

Soon after starting NMES, Crass was able to withstand all 200 milliamps (rms) of power. At one point during NMES, Crass's muscle contracted so strongly that it broke a leather strap used to hold him down. "The strap snapped like a rubber band," Crass recalls with a laugh. "I didn't feel any pain, though, just a deep pressure inside of my thigh."

For the third month of the study, NMES was withdrawn and Crass worked out as usual; NMES was then resumed for two weeks.

Dramatic Results

From the beginning, results were dramatic. In the front squat, Crass achieved an 85-pound gain. He went from 330 to 375 pounds after two weeks of NMES, maintained it during NMES withdrawal, and was able to lift 415 pounds by the end of the study period. His other lifts improved almost as much.

Delitto believes NMES not only makes muscles work harder, but also may stimulate the nerves that lead directly to the body's strength-producing fibers. Before-and-after muscle biopsies showed that the intense stimulation actually changed both the amount and type of Crass's muscle, apparently converting some endurance-producing fibers into the strength type.

An increase in strength fibers is considered an advantage in weightlifting or any other sport that requires short, explosive bursts of energy (sprinting and other track and field events, football and basketball, etc.) as opposed to sports that require the sustained endurance (long-distance running, biking, swimming, etc.).

"What matters most is that we achieved a 'carry-over effect' into Crass' performance gains," stresses Delitto. "If your muscles register more force on an isokinetic dynamometer after stimulation but you can't lift more weight, hit a baseball harder or run faster, it means nothing."

Others who have worked with NMES agree. "While most studies show that strength gains from electrical stimulation are possible, Delitto is among the first in the U.S. to demonstrate that NMES produces a carry-over

Continued on p. 5

Multi-school effort to recruit internal medicine physician-scientists

Four leading U.S. medical schools have combined forces to create a program for the education of physician-scientists in internal medicine.

In a joint effort to develop a new structure to permit selected medical students to pursue academic careers in internal medicine, the departments of internal medicine at Duke University, John Hopkins University, the University of Pennsylvania and Washington University in St. Louis are creating fully funded programs to provide comprehensive residency and fellowship training focusing on medical research.

The program marks the first cooperative, multi-school effort to develop physician-scientists in internal medicine.

Key features of the program include:

- Guaranteed six years of financial support for research and clinical training.
- Guaranteed two years of residency training at one of the four schools.
- Guaranteed two years of post-doctoral research training at one of the four schools.
- Comprehensive program designed to provide a foundation for becoming a physician-scientist.
- Membership in a society of physician-scientists sponsored by the four schools.

Alfred P. Fishman, M.D., director of the Cardiovascular-Pulmonary Division at Penn Medical Center, is the national coordinator for the project.

"As a response to the national need for physician-scientists, this combined program of clinical and research training is unique in at least two important respects: it extends the boundaries of a medical education beyond the confines of a single school to include four outstanding research universities, and its novel preceptorial system opens the door for each participant to enrich and fulfill personal academic goals," said Fishman.

"The shortage of physician-scientists poses an acute problem for the future and by joining together to broaden the research education opportunities for prospective medical educators, we hope to solve that problem," said John D. Stobo, M.D., chairman of the Department of Medicine at Johns Hopkins University.

"We need physician-scientists to step in as the leaders of our academic programs, to replace faculty who blossomed in the 1960s and are going to be retiring in the mid-1990s, in order for medical education to maintain its pioneering edge," said Laurence E. Earley, M.D., Francis C. Wood Professor and chairman of the Department of Medicine at the University of Pennsylvania Medical Center, and one of the architects of the four universities' approach to solving the problem.

"Educators at these four institutions feel that the most powerful way to attract medical students to careers in clinical investigation is to provide the opportunity for them to engage in research early in their professional education and this program provides that opportunity," said the program leader at Duke University Medical Center, Joseph Greenfield, M.D., James B. Duke Professor and chairman of the Department of Medicine.

"Medical students incur a huge debt in medical school and feel that they need to get out and get established in private practice in order to start paying off that debt. This program is designed to help them bypass part of that problem," explained David M. Kipnis, Adolphus Busch Professor and

chairman of the Department of Internal Medicine at Washington University.

The four-university consortium guarantees funding for a full year of research training during medical school, the senior year of medical school through two years of residency and two years of research. The program will be funded initially by each of the four universities, with subsequent funding to be sought from private sources.

Each school has appointed a distinguished physician-scientist as that school's program coordinator and principal mentor: Galen S. Wagner, M.D., of Duke; Douglas Fearon, M.D., of Johns Hopkins; Alfred P. Fishman, M.D., of Penn; and John P. Atkinson, M.D., of Washington University.

The first participants in the program, two from each of the four medical schools, are expected to be selected in January. Plans call for two additional participants from each school each year.

Students will be eligible to be chosen for the program in their third year of medical school. They will spend time at each of the four campuses, meeting with program mentors to determine at which school they will spend the next year engaged in research. Program coordinators will match a complete academic program with students' investigative interests, allowing them to choose among the four schools for residency and post doctoral research training as well.

"Under the present system, there are a series of discontinuities that, basically, require medical students to use up their senior year just deciding where they're going to do their residency," said Fredric Burg, M.D., associate dean for academic programs in Penn's School of Medicine.

"During their senior year, students have to start looking for a residency. They're going to have to interview at several schools, spend time in those hospitals and before you know it, their senior year is used up just positioning themselves for a residency. And then they have to do it all over again to locate a fellowship," said Burg.

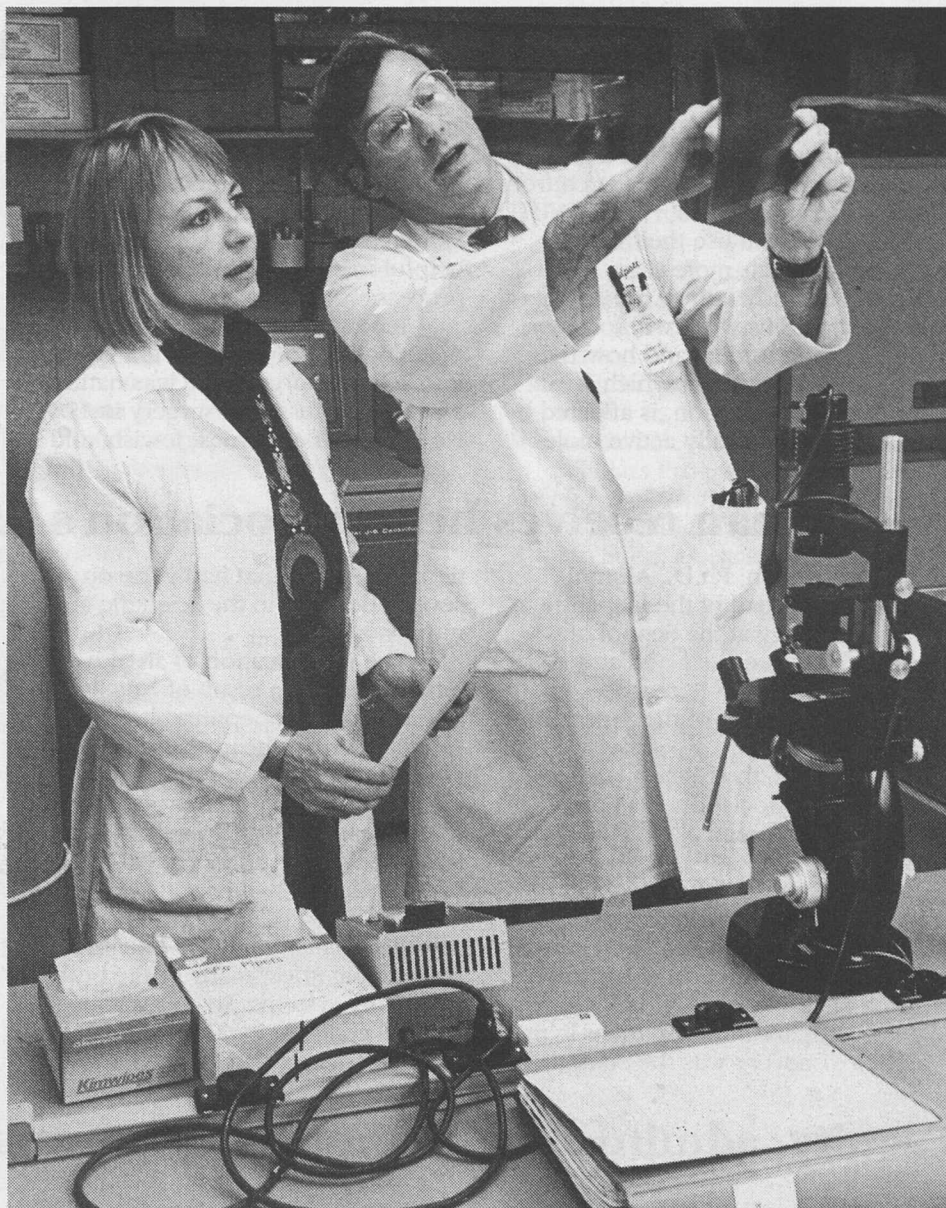
"This program saves them that hassle and gives them the opportunity to create a complete program, from medical school through a clinical residency and research fellowship in internal medicine without appreciable interruption. It's designed to allow them to concentrate on becoming productive medical scientists, learning from and working alongside the leading medical research specialists in a multitude of fields," Burg said.

Pumping up muscle — *Continued from p. 4*

to performance when used along with a strength-training program," says Lynn Snyder-Mackler, assistant professor of physical therapy at Boston University.

Mackler, who for six years has used medium-frequency NMES to treat athletes who are injured or recovering from surgery, warns that technicians who administer NMES must be properly trained. "At the moment, not many people besides Delitto understand the technology. Serious joint and soft tissue injuries can result unless the current is carefully modulated and the subject securely strapped down."

When properly administered, NMES appears to be safe. "I've used NMES for 12 years to prevent muscle atrophy in post-surgical patients," says Dean Currier, Ph.D., head of the



Judith M. Connett, Ph.D., and Gordon W. Philpott, M.D., are studying monoclonal antibodies, developed by Connett, that may prove useful in imaging and treating colon cancer.

\$1.2 million awarded

Colon cancer research receives NIH support

Researchers at Jewish Hospital at Washington University Medical Center have been awarded a \$1,226,583 research grant to further their study of monoclonal antibodies directed against human colon cancer.

The National Institutes of Health grant was awarded to Judith M. Connett, Ph.D., research assistant professor of surgery, and Gordon W. Philpott, M.D., Harry Edison Professor of surgery and associate director of surgery at Jewish Hospital.

Connett has developed antibodies that bind strongly to colon cancer cells and weakly, or not at all, to normal colon tissue. This characteristic makes the antibodies useful reagents for the imaging and possible therapy of colon cancer.

The grant supports ongoing research in the characterization study of the colon cancer antigens to which the antibodies bind. Connett and Philpott, along with Michael J. Welch,

Ph.D., professor of radiology, and Carla J. Mathias, research assistant in radiology, both at Mallinckrodt Institute of Radiology at the School of Medicine, continue studies to identify the best imaging reagent for tumor detection. These imaging reagents must be attached to the antibodies to make the antibodies observable, without altering the antibody's ability to recognize and bind to tumor cells.

A major goal of these studies is to improve the ability to detect small, metastatic lesions. Tumors which have gone unnoticed in the past may now be visualized.

Once the most promising imaging antibody reagent is identified, Connett says, clinical studies in colorectal cancer patients will begin. These studies will be performed in conjunction with Barry A. Siegel, M.D., professor of medicine and radiology and director of nuclear medicine at Mallinckrodt.

power," Delitto says. "We're ready to try it on a variety of athletes, and we won't be satisfied until we've replicated the substantial results we've already had."

"It's time to stop being suspicious of the Soviets and start doing what they do," Delitto says. "Their athletes are no better than ours, but their technology is. The only way we can compete on their level is to admit we can learn something from them. If NMES is widely adopted in the U.S., we could end up with an unbeatable Olympic team. Even more important, NMES may make steroids obsolete and result in cleaner, healthier sports for everyone."

Tony DiMartino

MEDICAL RECORD

Kidney transplant rejection under study

Martin D. Jendrisak, M.D., assistant professor of surgery at the School of Medicine, has been awarded a grant for organ transplantation research from the National Institutes of Health (NIH).

Jendrisak will use the five-year grant, which totals more than \$330,000, to study kidney transplantation rejection. His work will focus on trying to better understand how the body's immune system, which is responsible for rejection, is affected by the various biologically active mole-

cules produced during fatty acid metabolism. Experimentally altering fatty acid metabolism in animals undergoing kidney transplantation will provide important information on immune system regulation, which may prove helpful in controlling the rejection process.

Jendrisak joined the faculty at Washington University in 1985 as an instructor in surgery. He was named assistant professor of surgery in 1988. He is on staff at Barnes, Jewish, and

Children's hospitals, sponsoring institutions of the Washington University Medical Center. He is also on staff at the John Cochran Veterans Administration Hospital and at St. Louis Regional Medical Center.

Jendrisak received his medical degree in 1978 from Ohio State University College of Medicine. He won the American Medical Association Physician's Recognition Award in 1984.

Needleman receives heart association's highest honor

Philip Needleman, Ph.D., Alumni Professor and head of the Department of Pharmacology at the School of Medicine, has been selected as a co-recipient of the 1988 Research Achievement Award of the American Heart Association.

The award, the highest honor given by the association, was presented to Needleman Nov. 14 in Washington, D.C.

Needleman was honored in recognition of his original and important contributions to the identification and understanding of atrial natriuretic factor, a factor in the blood that regulates salt and fluid balances in the body. Its discovery was the culmina-

tion of a search that had gone on several decades in the scientific community.

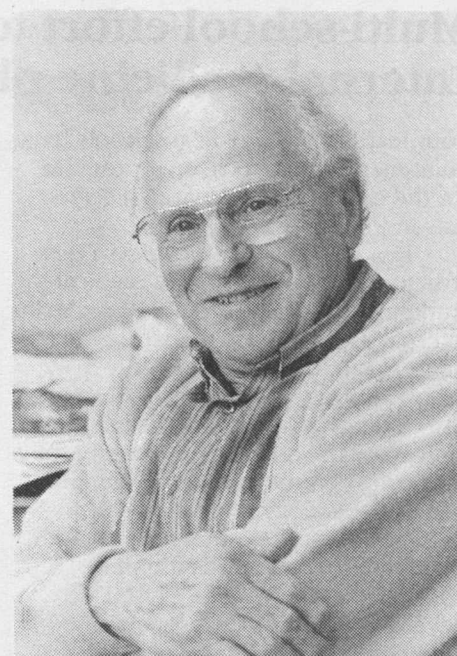
The identification of atrial natriuretic factor was a result of Needleman's research on atriopeptins, chemicals produced in the heart that dramatically affect the kidneys and the body's internal fluid environment. Needleman's research team isolated and established the molecular structure of atriopeptins in 1983.

He is also an authority on prostaglandins, hormone-like substances that affect many of the body's regulatory systems. He has made specific contributions to the relationship between prostaglandins and

blood clotting, blood pressure regulation and heart disease.

Needleman joined the School of Medicine faculty in 1967 as an assistant professor, and was named head of the pharmacology department in 1976. He has held the Alumni Endowed Professorship since 1982, and has been voted Teacher of the Year four times by senior medical students. He received his doctorate from the University of Maryland in 1964, and served postdoctoral and advanced research fellowships at the School of Medicine.

Needleman was elected to the National Academy of Sciences in 1987. He is author or co-author of nearly 300 papers and reviews on his research.



Albert Roos

Roos' grant renewed; funding began in 1948

Albert Roos, M.D., professor emeritus of anesthesiology and lecturer in cell biology and physiology at the School of Medicine, has received a grant from the National Institutes of Health (NIH) for his research on intracellular pH.

Roos's five-year grant represents support of his work by the National Heart, Lung, and Blood Institute of the NIH for 43 continuous years. He received his first grant in 1948.

Roos's research was originally centered on the mechanics and regulation of respiration. Since 1965, he has been concerned with the regulation of intracellular pH, which is known or suspected to influence fundamental cell functions such as growth and differentiation, muscle contraction, and membrane permeability. He and his colleagues have used intracellular microelectrodes in their work on barnacle and frog muscle fibers. In this way they can examine the membrane-bound and intracellular mechanisms that affect and regulate intracellular pH.

From 1963 to 1985, Roos received a Research Career Award from the NIH.

Dermatitis study seeks volunteers

Researchers at the School of Medicine are seeking volunteers to participate in a study testing a new treatment for dermatitis.

The study involves testing a new drug for people with atopic dermatitis (AD), a chronic itchy rash that often appears behind the knees, in the creases of elbows or around the neck. People who suffer with AD or their family members may also have allergies such as asthma or hay fever.

Principal investigator for the study is Ann Martin, M.D., instructor in dermatology. The project is funded by Rorer Central Research, makers of the drug.

To be eligible for the study, participants need to be over the age of 18; women should be postmenopausal or unable to have children because of a tubal ligation. Volunteers will apply the test drug to their rash three times a day and will be seen weekly for no more than six weeks at the dermatology outpatient center, located in Barnard Hospital.

For more information, call Sharon Jenkins at the dermatology center, 362-2643.

Faculty, administrative appointments at medical school

The following is the continuation of an alphabetical listing of new faculty and administrative staff appointments on the School of Medicine campus, as of Sept. 26, 1988. The new appointments list was compiled by the faculty records office.

Catherine M. Ketcham, research associate in medicine (hematology/oncology);
Samuel F. Lillard, instructor in health administration (adjunct);
Chi-Ching Lo, visiting fellow in therapeutic radiological physics in radiology;
Susan Louise Masching, clinical instructor in physical therapy;
Michael E. McCadden, instructor in clinical medicine (dermatology);
Victor A. Marcial-Vega, instructor in radiology;
Jean-Claude Martinou, visiting research associate in pharmacology;
Daniel J. McGuire, instructor in surgery (orthopedic surgery);
Shinichiro Miyoshi, research assistant in surgery (cardiothoracic surgery);
Jeffrey F. Moley, assistant professor of surgery (general surgery);
John S. Munn, instructor in surgery (general surgery);
Teresa Murillo, visiting fellow in radiation oncology in radiology;
Anne M. Murphy, instructor in pediatrics;
Masatoshi Naito, research instructor in surgery (orthopedic surgery);
William T. Newell Jr., instructor in health administration (adjunct);
Lawrence M. Nogee, instructor in pediatrics;
Michael K. Pasgje, assistant professor of surgery (cardiothoracic surgery);
Brian Jerome Pease, clinical instructor in physical therapy;
Jay S. Pepose, associate professor of ophthalmology;
William H. Perman, assistant professor of radiation science in radiology;
Wayne Edward Peterett, clinical instructor in physical therapy;

Jonathan Mark Petrash, assistant professor of ophthalmology;
Bernard F. Ramos, visiting research associate in pharmacology;
Lloyd Evan Ratner, instructor in surgery (general surgery);
Regina Marie Ressler, clinical instructor in physical therapy;
Donovan Riley, instructor in health administration (adjunct);
Elliott C. Roberts Sr., instructor in health administration (adjunct);
Austin Rose, instructor in health administration (adjunct);
Lawrence R. Rouben, assistant in medicine;
Mary Alice Ryan, instructor in health administration (adjunct);
Joseph A. Safran, associate veterinarian for university animal facilities;
Lisa Ann Schorb, clinical instructor in physical therapy;
Johannes H. Schreinemakers, research assistant in surgery (cardiothoracic surgery);
John N. Simpson, instructor in health administration (adjunct);

Fannie May Candies supports microbiology

The Coleman/Fannie May Candies Foundation of Chicago has donated \$7,500 to the Department of Microbiology and Immunology at the School of Medicine.

The gift was used to support a departmental conference at which faculty, postdoctoral fellows and students met to present their latest research. According to Milton Schlesinger, Ph.D., acting chairman and professor of the Department of Microbiology and Immunology, this kind of conference provides the best possible forum for faculty and students to exchange scientific information and to form new collaborative research programs.

There were 75 members of the department at this year's conference, which included 30 posters describing research activities of the department.

Nathaniel J. Soper, assistant professor of surgery (general surgery);
John A. Stopple, instructor in clinical Ob & Gyn;
Zsuzsanna Szendi, research associate in Ob & Gyn;
Kenneth S. K. Tung, professor of pathology;
Ron Turnbull, instructor in health administration (adjunct);
David O. Ulaeto, research associate in pathology;
Thomas Lovett Vogel, research instructor in psychology in pediatrics;
Thomas H. Wareing, assistant professor of surgery (cardiothoracic surgery, Jewish);
Michael A. West, assistant professor of surgery (general surgery);
Hung N. Winn, assistant professor of Ob & Gyn;
Charlotte Ruth Woelfle, clinical instructor in physical therapy;
Barry T. Zeman, instructor in health administration (adjunct); and
Mary M. Zutter, instructor in pathology.

Three sessions of talks reviewed recent discoveries in bacterial pathogenesis, bacterial and viral vaccines, new antiviral agents and the AIDS virus. An evening discussion on ethics in science was led by Joseph Davie, M.D. Ph.D., past chairman of the department and now vice president for research at G.D. Searle & Co.

The Coleman/Fannie May Candies Foundation provided funding for two previous conferences for the microbiology and immunology department. The foundation also gave a \$325,000 gift to the university in 1986 as part of the ALLIANCE FOR WASHINGTON UNIVERSITY and has contributed over \$22 million to a number of local, civic and scientific institutions, a third of which was committed to cancer research and related facilities.

PERSONNEL NEWS

EEOC sets sexual harassment guidelines; University's revised brochures available

Employers can protect themselves from sexual harassment charges by developing and communicating an internal grievance procedure for sexual harassment victims, the Equal Employment Opportunity Commission (EEOC) says.

In a 32-page policy guidance memorandum to field office personnel, approved unanimously by the five-member commission, EEOC sets out standards and interpretations for evaluating charges of harassment.

Title VII does not proscribe all conduct of a sexual nature in the workplace, EEOC says. What is proscribed is:

"Quid pro quo" harassment — unwelcome sexual conduct to which submission is made either explicitly or implicitly a term or condition of an individual's employment; and

Harassment based on a hostile or offensive working environment in which unwelcome sexual conduct "unreasonably interferes with an individual's job performance."

An employer generally will be found liable for "hostile environment" sexual harassment by a supervisor when the employer failed to establish an explicit policy against sexual harassment and "did not have a reasonably available avenue by which victims of sexual harassment could complain to someone with authority to investigate and remedy the problem," EEOC says.

When employees know that recourse is available, the commission adds, "they cannot reasonably believe that a harassing work environment is authorized or condoned by an employer."

An internal personnel policy will not, however, insulate an employer from "quid pro quo" harassment, EEOC stresses, because an employer is always liable for "any supervisory actions that affect the victim's employment status, such as hiring, firing, promotion or pay."

In taking action against sexual harassment, EEOC encourages employers to:

Initiate discussions on the subject with all supervisory and non-supervisory employees, explaining sanctions for harassment;

Have a procedure for resolving sexual harassment complaints that is designed to encourage victims of harassment to come forward, without requiring that a victim complain first to the offending supervisor; and

Ensure confidentiality as much as possible and provide effective remedies, including protection of victims and witnesses against retaliation.

Washington University has had in effect a sexual harassment policy and grievance procedure since 1980. The sexual harassment brochure has been revised. The revised brochure is available in the Personnel Office, Room 126, North Brookings Hall.

Personnel holds training programs

The Personnel Office is developing training/educational programs that address on-going needs of the University, such as processing personnel/payroll forms and employment eligibility verification, as well as programs that address current and timely issues, such as sexual harassment, health and employment enhancement.

To date, the Personnel Office has sponsored six training/educational sessions with more than 350 employees in attendance. After the first of the

year, the office will sponsor a session in conjunction with the National Council on Alcoholism and Drug Abuse on recognizing these problems in the work environment and how to deal with them.

The Personnel Office welcomes and appreciates your input and suggestions for future training/educational programs. Please address any suggestions to Juli W. Einspanier, assistant director of personnel, Campus Box 1184.

Challenge issued for 100 neediest cases

The Washington University Health Service issues a challenge to all departments on the Hilltop Campus, Medical Campus and at the Administrative Service Center to participate in the 100 Neediest Cases project sponsored by the St. Louis Post-Dispatch.

The Health Service will pool the amount normally spent for departmental gift giving and other festivities to

make the departmental contribution to the 100 Neediest Cases.

Departments interested in meeting this challenge are invited to inform Gloria W. White, vice chancellor for personnel, at 889-5990 or by Box 1184. Participating departments will be acknowledged on a newly established Community Service Honor Roll.

Technical corrections bill enacted

The long-awaited Technical Corrections Bill to the Tax Reform Act of 1986 was passed at the 11th hour before Congress adjourned for the upcoming election. We are pleased to report that the legislation preserves an important flexibility for Supplemental Retirement Annuity (SRA) participants.

Under the legislation, withdrawal restrictions on distributions from 403(b) annuity contracts would not apply to accumulations attributable to salary reduction contributions made on or before Dec. 31, 1988, and to earnings accruing before that date. As a result, SRA participants may still withdraw all or part of their pre-1989 accumulations at any time.

However, certain distributions made before participants attain age

59 1/2 continue to be subject to an additional tax equal to 10 percent of the amount distributed unless they are eligible for an exception.

SRA participants do not have to make withdrawals by the end of the year in order to preserve the liquidity of their SRA accumulations.

Personnel News

Personnel News appears monthly in the Record and is prepared by Gloria W. White, vice chancellor for personnel and affirmative action, and other members of the Personnel Office. Personnel News is designed to keep Washington University employees and their families informed of the benefits and opportunities available at the University.

Professional positions open

Washington University is conducting searches to fill six professional positions on the Hilltop Campus. Detailed information about the qualifications and the application process is available from Sharon George in the Personnel Office at 889-5990.

Gallery of Art

Director

The director is responsible for the Gallery's regular annual program of changing exhibitions and for maintaining a permanent collection of art touching all cultures and periods.

Applicants should have the education, experience and imagination to develop arresting and educationally significant exhibitions and programs as well as the administrative and communication skills to work effectively with the University's many constituencies. Expertise in art management and skills in fund raising and project planning are also highly desirable. The director also administers the Gallery's acquisitions budget in conjunction with the University's Committee on Collections.

Interested candidates should send a resume, sample publications, a list of exhibitions and the names of three references to: Chairperson, Search Committee for Director of Gallery of Art, School of Architecture, Campus Box 1079, One Brookings Drive, St. Louis, Mo. 63130.

Computer Services

Director

The director oversees the administration of an advanced computer services organization with 12 large-scale IBM computer systems and a network of 1,200 terminals. Responsibilities will include planning for hardware and software growth and acquisition, overseeing rate setting and budget monitoring, and serving as liaison with the Office of Network Coordination, and with other academic and administrative departments of the University.

Appointment anticipated to be effective no later than April 1, 1989. Applicants are encouraged to send a resume and the names of three references by Dec. 15, 1988. Send to: Search Committee, Director of Computer Services, c/o Dean Robert Benson, School of Technology and Information Management, Campus Box 1220, Washington University, One Brookings Drive, St. Louis, Mo. 63130, (314) 889-5338.

Financial Affairs

Associate vice chancellor for finance

Responsibility includes overseeing the Treasurer's Office (endowment of more than one billion, bank relations and tax exempt bond offerings); Controller's Office; institutional budgeting and planning.

Nominations, applications and recommendations should be sent to: Ronald G. Evens, M.D., Vice Chancellor for Financial Affairs, Washington University in St. Louis, Campus Box 1080, One Brookings Drive, St. Louis, Mo. 63130. Applications are encouraged by Dec. 15, 1988.

Graduate tuition remission is taxable

Congress has passed a technical corrections bill that was signed into law by President Reagan on Nov. 11 that will make employer-provided graduate tuition remission and/or tuition reimbursement reportable as wages on an employee's Wage and Tax Statement, form W-2; however, an exclusion was extended for undergraduate courses through Dec. 31, 1988.

The University is implementing

University Libraries

Dean

Dynamic person with proven leadership ability is sought to head University's library system, a constellation consisting of a central facility and eight branch libraries currently housing a collection of well over two million volumes. In addition to serving as chief administrator of this system and its staff of over 100, the person filling this position will lead the University Libraries through a multi-year process of significant expansion and growth.

Appointment anticipated to be effective no later than July 1, 1989. Applicants are encouraged to send a resume and the names of three references by Dec. 15, 1988. Send to: Search Committee for Dean of University Libraries, c/o Dean Edward N. Wilson, Graduate School of Arts and Sciences, Campus Box 1187, Washington University, One Brookings Drive, St. Louis, Mo. 63130, (314) 889-6848.

General Counsel

Assistant general counsel

Assistant general counsel will work with the staff of the Office of the General Counsel, Risk Management Office, outside counsel and independently in providing legal service to the University. The Office of the General Counsel provides representation to the Hilltop and Medical campuses of the University. The principal responsibility of the counsel will be supervising and participating in litigation involving the University.

Submit a resume to: Peter H. Ruger, General Counsel, Washington University, One Brookings Drive, Campus Box 1058, St. Louis, Mo. 63130. All resumes must be received by Dec. 16, 1988.

Department of Chemistry

Senior NMR spectroscopist

Responsibilities include: operation and maintenance of NMR spectrometers; education of the NMR user community in the use of instruments and NMR spectroscopy; implementation of new NMR methods for facility use; research relating to ongoing projects in the NMR Facility.

Submit resume and arrange for three letters of recommendation to be sent to: D. Andre d'Avignon, Ph.D., Department of Chemistry, Campus Box 1134, Washington University, One Brookings Drive, St. Louis, Mo. 63130. Resumes encouraged by Jan. 15, 1989.

In addition to the professional/managerial searches, qualified candidates are being sought to fill secretarial, clerical and technical positions. Information about these positions is available through the Medical Campus Personnel Office, 4550 McKinley Ave., 362-7195, and the Hilltop Campus Personnel Office, North Brookings Hall, One Brookings Drive, 889-5990.

Washington University is an affirmative action/equal opportunity employer.

CALENDAR

Dec. 1-10

LECTURES

Thursday, Dec. 1

4 p.m. Dept. of Chemistry Seminar, "Fermi Jets and Hard Photons From Heavy-Ion Collisions," Robert Vandenbosch, prof. of chemistry, U. of Washington-Seattle. 311 McMillen.

4 p.m. Central Institute for the Deaf (CID) Research Seminar, "Some Notes on the Cochlear Helicotrema," Donald H. Eldredge, research prof. of otolaryngology at CID. CID Aud., second floor, Clinics and Research Bldg., 909 S. Taylor Ave.

4 p.m. Dept. of History Lecture, "The State of a Non-Field: The History of Western Science in 20th-century China," William Haas, visiting professor. Cohen Lounge, Room 113, Busch Hall.

4 p.m. Public Affairs Thursday Series, "From Reagan to Bush: Change and Continuity After Reagan," John B. Gilmour, William R. Lowry and Stephen J. Stedman, asst. profs. of political science. Eliot 200 C and D.

4 p.m. Dept. of Anthropology Colloquium, "Oedipus, Freud, and Malinowski: Views From the Cradle, Canoe, and Armchair," Murray Wax, WU prof. of sociology. 101 McMillan.

4 p.m. WU School of Medicine Dept. of Pathology Seminar, "The Molecular Basis of Mutagenesis," Lawrence A. Loeb, Dept. of Pathology, Joseph Gottstein Memorial Cancer Research Laboratory, U. of Washington School of Medicine. 3rd fl. Aud., Children's Hospital.

4:30 p.m. Dept. of Mathematics Colloquium, "Extensions of Multipliers by Transference," Earl Berkson, professor, U. of Illinois at Urbana-Champaign. 199 Cupples I.

Friday, Dec. 2

6 and 8:30 p.m. WU Film Travel Lecture Series, "North to the Top of the World," John Wilson, filmmaker. Graham Chapel. For ticket info., call 889-5122.

4 p.m. Dept. of Music Lecture Series, "Imaging Sonic Structure: Mozart and Boulez," Robert Cogan, New England Conservatory. Blewett B-8.

Monday, Dec. 5

4 p.m. Dept. of Biology Seminar, "Molecular and Cellular Studies of a Biological Clock," Michael Young, Howard Medical Institute, Rockefeller U. 322 Rebstock.

4 p.m. Dept. of Psychology Colloquium, "New Approaches Toward the Treatment of CNS Disorders," Stanley Finger, WU prof. of psychology. 102 Eads.

Wednesday, Dec. 7

4 p.m. Dept. of Physics Colloquium, "Matrix-Isolated Hydrogens," Richard E. Norberg, WU prof. of physics. 204 Crow.

Thursday, Dec. 8

4 p.m. Dept. of Chemistry Seminar, "What Is the Triggering Mechanism of Visual Transduction?" Koji Nakanishi, prof. of chemistry, Columbia U. 215 Rebstock.

4 p.m. Central Institute for the Deaf (CID) Seminar, "Perception of Vowels," Marios Fourakis and John W. Hawks, both from CID. Clinics and Research Bldg. Aud., 909 S. Taylor.

4 p.m. Dept. of Philosophy Colloquium, "Low Blows: Some Empirical Considerations on Observation and Theory," Daniel Gilman, WU visiting professor of philosophy. Hurst Lounge, Duncker Hall.

MUSIC

Saturday, Dec. 3

8 p.m. Dept. of Music Presents the WU Collegium Musicum in a holiday concert. Graham Chapel.

Thursday, Dec. 8

8 p.m. WU Dept. of Music Presents WU Mixed Choir Concert with Sally Herman, director. Graham Chapel.

Friday, Dec. 9

8 p.m. WU Dept. of Music Presents WU Chamber Choir Christmas Concert with Louis Schuler, director. Graham Chapel.

Saturday, Dec. 10

7:30 p.m. WU Wind Ensemble, directed by Dan Presgrave, will participate in the Christmas Carols Festival at Kiel Aud. (Also Sun., Dec. 11, at 2 p.m., Kiel.) The festival will benefit 75 children's charities. Tickets are \$4-6 and can be purchased at the Kiel box office, Famous-Barr and other Tickets NOW locations.

PERFORMANCES

Friday, Dec. 2

8 p.m. WU Performing Arts Dept. Presents WU Dance Theatre. Edison Theatre. Also at 8

p.m. on Dec. 3, and 2 p.m. on Dec. 4. Admission is \$5 for the general public, and \$4 for the WU community and senior citizens.

8:30 p.m. Hillel Presents a Jewish Theatre Group in the play "Voices and Echoes," based on interviews with Holocaust survivors by Julie Heifetz. Hillel House, 6300 Forsyth Blvd.

EXHIBITIONS

"Video: Form and Performance." Through Dec. 17. Gallery of Art, Steinberg Hall, lower level. 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends.

"Eugene O'Neill: A Centenary Celebration," an exhibit drawn from the private collection of Harley J. Hammerman. Through Dec. 30. Olin Library Special Collections. 8:30 a.m.-5 p.m. weekdays.

"Faculty Show," works by WU faculty. Through Jan. 8. Gallery of Art, Steinberg Hall, upper gallery. 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends.

"MFA Exhibit," featuring work of sculptor Chuck Hassel. Dec. 3-11. Bixby Gallery, Bixby Hall. 10 a.m.-4 p.m. weekdays; 1-5 p.m. weekends. For more info., call 889-4643.

FILMS

Thursday, Dec. 1

7 and 9 p.m. WU Filmboard Series, "Rashomon." \$2. Brown Hall.

Friday, Dec. 2

7 and 9 p.m. WU Filmboard Series, "Children of a Lesser God." \$2. Brown. (Also Sat., Dec. 3, same times, and Sun., Dec. 4, at 7 p.m., Brown.)

Midnight. WU Filmboard Series, "And Now for Something Completely Different." \$2. Brown Hall. (Also Sat., Dec. 3, same time, and Sun., Dec. 4, at 9:30 p.m., Brown.)

Monday, Dec. 5

7 and 9 p.m. WU Filmboard Series, "The Man in the White Suit." \$2. Brown Hall. (Also Tues., Dec. 6, same times, Brown.)

Wednesday, Dec. 7

7 and 9 p.m. WU Filmboard Series, "Volpen." \$2. Brown Hall. (Also Thurs., Dec. 8, same times, Brown.)

Friday, Dec. 9

7 and 9:30 p.m. WU Filmboard Series, "Moonstruck." \$2. Brown Hall. (Also Sat., Dec. 10, same times, and Sun., Dec. 11, at 7 p.m., Brown.)

Midnight. WU Filmboard Series, "A Christmas Story." \$2. Brown Hall. (Also Sat., Dec. 10, same time, and Sun., Dec. 11, at 9:30 p.m., Brown.)

SPORTS

Friday, Dec. 2

5th Annual Washington U. Lopata Basketball Classic

6 p.m. Pomona-Pitzer vs. Trinity. Field House.
8 p.m. WU vs. MIT. Field House.

Saturday, Dec. 3

5th Annual Washington U. Lopata Basketball Classic

6 p.m. Consolation Game. Field House.
8 p.m. Championship Game. Field House.

Saturday, Dec. 10

7:30 p.m. Men's Basketball, WU vs. Rust College. Field House.

MISCELLANY

Friday, Dec. 9

Noon. Woman's Club Mini-Luncheon and Holiday Concert featuring the "Pitch Pipers." Women's Bldg. The cost is \$3 for members and \$4 for their guests. For more info., call Renata Rotkiewicz at 862-0422.

Calendar Deadline

The deadline to submit items for Dec. 8-17 calendar of the Washington University Record is Dec. 9. Items must be typed and state time, date, place, nature of event, sponsor and admission cost. Incomplete items will not be printed. If available, include speaker's name and identification and the title of the event; also include your name and telephone number. Send items to King McElroy, calendar editor, Box 1070, or by electronic mail to p72245KM at WUVMC.



Sculptor Chuck Hassel's "A Ceremony for Rudy" will be included in the Master of Fine Arts exhibit. The sculpture, which weighs about 450 pounds, is composed of limestone, marble, onyx and sandstone and is held together with reed.

Sculptor's stone work on exhibit

Bixby Gallery will feature the work of artist Chuck Hassel in a Master of Fine Arts exhibit that will run Saturday, Dec. 3, through Sunday, Dec. 11.

Hassel is a sculptor who works primarily in stone. His pieces, which consist of stone slabs held together with web-like ties, range in size from a small work that sits on a pedestal to a sculpture that weighs more than 3,000 pounds.

"I like doing works outdoors, using materials I find on the site," he says. "This body of work is challenging

because I'm bringing the work indoors. The pieces seem rather quiet outside. Their scale is so small as opposed to the scale of the earth. In the gallery, they seem louder, bigger."

The thesis exhibition is one of the requirements for completion of the Master of Fine Arts degree at the University.

Bixby Gallery is located in Bixby Hall. Exhibit hours are 10 a.m. to 4 p.m. weekdays and 1-5 p.m. weekends. For more information, call 889-4643.

Bears shoot for fifth Lopata title

The men's basketball team has a habit of being a rather "rude" host at its Lopata Classic championship.

The team hopes to continue this tradition on Friday and Saturday, Dec. 2-3, at the Field House when the Bears shoot for a fifth straight title at the Fifth Annual Lopata Classic, a.k.a. "The Brain Bowl."

This year's Classic features Pomona-Pitzer Colleges of Claremont, Calif., vs. Trinity University of San Antonio, Texas, at 6 p.m. on Friday. In the nightcap, the Bears play Massachusetts Institute of Technology from Cambridge, Mass., at 8 p.m.

On Saturday, the consolation game will be contested at 6 p.m., while the championship match is set for 8 p.m.

The Lopata Classic — created by John Schael, Washington athletic director; Harry Kisker, dean of students; and of course, Stanley and Lucy Lopata, long-time University benefactors — planted the seed for the University Athletic Association, a nine-team league of academically prominent universities, which began full

competition in all sports last year. The Classic and the new conference continue to draw media attention.

This year's Classic is expected to be one of the more competitive tournaments this season. After suffering losing seasons last year, all three visiting teams have high expectations for 1988-89.

The Bears, who won their season-opener over DePauw University, are returning just one starter from last year's Lopata Classic championship squad.

"This event is always a highlight for the players and coaches, as well as the fans," says Washington Coach Mark Edwards. "This year's tournament field is evenly-matched on paper, which tells me any one of the four teams could win the title."

"Once again, we can't thank Stanley and Lucy Lopata enough for their outstanding support. Without their assistance, this tournament would not be as prestigious as it has become today."