



THE  
OREGON HEALTH  
SCIENCES UNIVERSITY

# NEWS

The Oregon Health Sciences University News is published to inform students, employees, faculty and friends of the institution's programs, activities and events.

## OHSU announces plans to do heart transplants

As the *OHSU News* went to press, President Leonard Laster announced that the Oregon Health Sciences University had sent to the State Health Planning and Development Agency its rationale for providing Oregonians access to human heart transplantation. The announcement highlighted the fact that University Hospital currently has the facilities, the equipment, the personnel and the expertise to perform heart transplants — a service that could save the lives of several Oregonians a year.

Laster pointed out at a Sept. 24 news conference that the service is a logical extension of the patient care, research and teaching programs in kidney disease, kidney surgery, heart disease, heart surgery and transplantation science that have been in place at the OHSU for more than 20 years.

"Since 1959, the OHSU has created one of the nation's outstanding programs for kidney transplantation," Laster said. "Our record of success puts this institution among the top 10 percent in the country. To create such a valuable program, it was necessary to develop an exemplary resource in the management of the medical problems associated with transplantation."

"Having established our capability in the clinical and scientific aspects of organ transplantation," said Laster, "We regard it as a happy dividend to the people of Oregon to build on this sphere of excellence by extending it to include heart transplants. This logical transition is possible, too, because the director of the Division of Cardiopulmonary Surgery at the OHSU is Dr. Albert Starr, one of the world's leading heart surgeons."

Starr directs the transplant team, which includes Drs. Adnan Cobanoglu and Storm Flotten, cardiopulmonary surgeons; Jef-



OHSU physicians faced the cameras in September to explain the university's plans to offer heart transplantation to Oregonians. Above, team members await their turns at the podium. Seated in the front row, from left, are Drs. William Bennett, John Barry, Jeffrey Hosenpud, Douglas Norman, Henry Demots and Albert Starr. At right, President Leonard Laster has his microphone adjusted before appearing on television news show.

frey Hosenpud and John McAnulty, cardiologists; Douglas Norman, nephrologist and immunologist; Henry Casson, cardiac anesthesiologist; and Robert Maricle, psychiatrist. Robin Conner is nurse coordinator.

With about 350 Americans receiving heart transplants last year, the procedure is no longer considered experimental. Starr said at the news conference, "Because it's considered standard treatment now, we

have the obligation to provide cardiac transplantation to the people of Oregon. The geographic limitation is important too — the procedure should be completed within three hours after the heart is retrieved if possible."

Without a transplant service nearby, Oregonians who are candidates for heart transplants have had to travel to medical centers in other states or go without this

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## Fourth annual convocation brings research to the public

Can the form of blindness that attacks hundreds of premature infants each year be prevented? Does osteoporosis affect men as well as women? How is the recently discovered virus that causes AIDS transmitted? How are cancer cells turned on and off?

The answers to these and many other questions are under investigation by researchers at the Oregon Health Sciences University, home to hundreds of scientists working to unravel the mysteries of human disease.

On Thursday, Nov. 7, from noon to 5 p.m., many of those scientists will explain their work and its implications for the future, at the Fourth Annual Research Convocation. More than 75 exhibits summarizing vital research will be on display in the OHSU Library and Mackenzie Hall; researchers will be on hand from noon to 4 p.m. to answer questions about their research work. As in past years, the Research

Convocation is free and open to the public.

(For brief descriptions of some of the exhibits, see story on page 6.)

Leonard Laster, M.D., OHSU president, explains why the university presents the convocation: "More than ever, it is important for laboratory scientists and bedside clinicians concerned with the battle against human disease to communicate with their colleagues, patients and friends about the nature of their work and about the exciting progress they are making. To provide an effective channel for such communication, three years ago the OHSU instituted the annual Research Convocation. The enthusiasm with which it has been received is extremely gratifying. That several hundred Oregonians join us on Marquam Hill to explore the wonders and achievements of our laboratories and clinics, is a tribute to the interest we all share in this subject."

"Even more important is the growing involvement of the high school students of the state — almost 1,000 will join us on the morning of the convocation to listen to and interact with OHSU biomedical investigators. Tomorrow's scientists and practitioners will be stimulated and encouraged by this unusual opportunity."

"This is a time of contradictions for American biomedicine. The scientists appear to be closing in on the basic understanding of disease processes that will enable them to produce the preventive and curative measures we all desire. Regrettably, there also appears to be a resurgence of antisocial and anti-intellectual feeling that threatens to slow the progress. The Research Convocation is an effort by the Health Sciences University to reduce the polarization and bring the opposing attitudes nearer to harmony. I urge us all to make this fourth convocation an outstanding one."

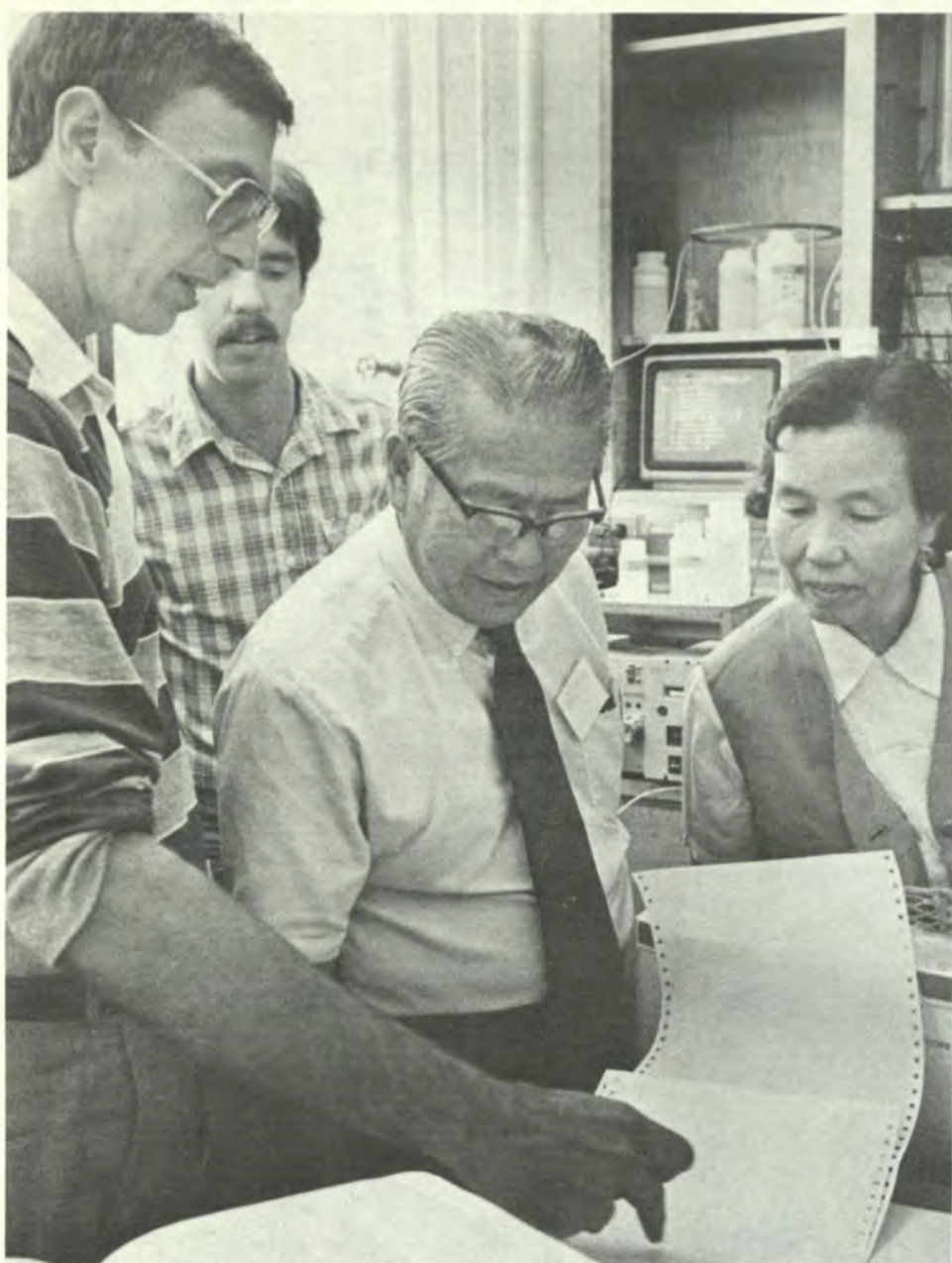
Some of the most important people at the event will be those who come to listen, says John Resko, Ph.D., who chairs this year's convocation committee. "It is important to let people in the community know what we do and how it affects them."

"The basic research that is performed by scientists at the OHSU will yield important information for understanding the biology of disease," says Resko, chairman and professor of physiology. "A better understanding of normal cell function will lead to a better understanding of abnormal cell function, such as uncontrolled cell growth (cancer), reproductive failure, changes in cell function with aging, and many other conditions. The convocation is one way to let people know what we are doing to resolve these problems."

The exhibits generally fall under certain major topics: diabetes, heart disease and hypertension, cancer, arthritis, infection.

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Clockwise from above, visitors from China's Fujian Province discuss research with Dr. Thomas Shearer in a dental school laboratory, observe infant care with Dr. John Reynolds in Doernbecher Hospital's Neonatal Intensive Care Center, hear about the university's libraries from Director James Morgan. Group of seven prominent physicians and health care administrators came to the OHSU from Oregon's sister province to gain understanding of medical practice, research and training in the United States.

## Chinese health care ambassadors visit Oregon

An evening that begins with Big Macs, chocolate shakes and fries and is topped off with a Portland Beavers baseball game might not live forever in the memory of the average American, but to a delegation of health care leaders from China, just such an evening took on special meaning.

This was only one event in 11 days packed with new experiences for these special visitors to the OHSU. At the invitation of President Leonard Laster, the group traveled in July from Fujian Province on the southeastern coast of China to gain a better understanding of the medical challenges of their American colleagues and to

share their own professional experiences. They left not only with a wealth of new-found knowledge, but also with memories of fun and laughter. For mixed with the formal, official events of the visit was the chance to form enduring friendships between people who, despite the differences in cultures, had much more in common than just their vocations.

The warm feelings that developed between the visitors and hosts were expressed one afternoon in the Library Auditorium by Dr. Chen Guoxi, former president of Fujian Medical College and the delegation's adviser, and by Laster.

Chen called upon Scottish poet Robert Burns to help express the thanks of the delegation, saying he hoped that "through our joint effort, our friendship will not only stand the test of time measured by months or years but will last until 'all the seas gang dry and the rocks melt wi' the sun.'"

In expressing the good will of the OHSU faculty toward the visitors, Laster said, "It is easy to be a gracious host when one is dealing with gracious guests. It is a privilege to have the delegation here and to begin to think in terms of developing an ongoing relationship between the medical college there and this university. We hope the exchange of information and individuals will be long and intellectually profitable on both sides."

The seven medical ambassadors from Oregon's sister province (a relationship established in 1983) were led by Dr. Zou Ningsheng, president of Fujian Medical College, who had the honor of throwing the first pitch of the ball game that all-American evening and seeing his name on the Civic Stadium scoreboard. Other delegation members were administrators of Fujian's provincial hospital, public health department, women's hospital, cancer hospital and institute of traditional Chinese medicine.

"The visit was a great success, on every

level," says Thomas Albert, M.D., D.M.D., associate professor of oral and maxillofacial surgery at the School of Dentistry. Albert, who has spent several months in China, chaired the planning committee for the visit.

**"We hope the exchange of information and individuals will be long and intellectually profitable on both sides."**

"On the professional level, it was a good introduction to the university and the community," Albert says. "They are a medically sophisticated group and explored the specifics of how medicine is practiced here. Now that we've met each other, people with particular interests in common will be able to follow up with further contacts."

"On the social level, they got a sense of our country and were very enthusiastic about their experiences here. They were fascinated by little nuances of how we live, by such things as supermarkets. The chance to exchange ideas was the best part of the visit."

The group met with the governor and officials of the Oregon State System of Higher Education; observed open-heart surgery at University Hospital; traveled up the Columbia on a paddlewheel boat; visited other Oregon hospitals; attended banquets and receptions.

They were faced with much more food and less sleep than they were used to getting at home, but they gamely tackled large deli sandwiches and caught short naps in the van on their way from one event to the next. But they didn't mind the fast pace, because it enabled them to meet the people they came to meet.

A laboratory test that was first per-

formed in China but has been modified in this country provided the basis for one of the many bonds formed between the Chinese delegates and OHSU faculty. The deputy superintendent of the Fujian Health Hospital for Women and Children made a special request to visit the Cytogenetics Laboratory, located at the Crippled Children's Division and directed by Ellen Magenis, M.D., professor of pediatrics in the School of Medicine.

The visitor, Dr. Chen Wenzhen, was especially interested in the laboratory's technique for performing chorionic villus sampling, a procedure used to diagnose certain genetic defects in early pregnancy. She wanted to see how the procedure had been refined since it traveled across the ocean. She had many other questions to cover in the all-too-short visit, including the addresses of scientific supply houses. It can be hard to get some kinds of lab supplies in China.

Conversations like this one have not ended with the group's return to Fujian. The advancement of science — even the chances for world peace — can only be enhanced by such fruitful exchanges between two countries that were completely out of touch for 30 years.

As committee chairman Albert says, "There is an Oregon connection in China."

Also, there is a piece of Oregon growing in Chinese soil, thanks to one of the small incidents of the visit.

During a barbecue at the home of David Witter, interim director of University Hospital, the Chinese were admiring a healthy horseradish plant, larger than any they had seen in China. (In Chinese traditional medicine, a poultice made from horseradish root is sometimes used to treat wounds.) Witter immediately got a shovel, dug up a horseradish and presented it to the visitors — thus forming one more of the many new links between the medical communities of Oregon and Fujian Province.

### THE OREGON HEALTH SCIENCES UNIVERSITY NEWS

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# Prevention, new techniques highlight lecture series

The Marquam Hill Society this month began its fifth annual lecture series, which features six outstanding OHSU researchers discussing topics ranging from better management of stress to relationships between aging, hormones and cancer.

• The series began Oct. 3 with an exploration of metabolic disorders, the genetic errors that can cause diabetes, phenylketonuria (PKU), hypoglycemia and food intolerances. Neil Buist, M.D., professor of pediatrics and medical genetics, explained the interaction between body chemistry and food and what happens when metabolism is disturbed. In the lecture titled "Body Chemistry Disorders — Your Diet Is a Key," Buist told his audience that metabolic disorders affect one in 100 Americans, and are known to cause some 450 human health problems. Many of these inborn errors can be completely treated or effectively managed by diet.

• "Hormones, Aging and Cancer" is the topic of the lecture scheduled Nov. 14 by Edward Keenan, Ph.D., associate professor of surgery and assistant professor of pharmacology. Keenan will describe the roles of aging and sex hormones in the development and treatment of two types of cancer: those of the breast and prostate. Breast cancer is currently the leading cause of cancer deaths among women and prostate cancer is the second most common malignancy among men. Keenan will explain how hormonal dependence of certain cancer cells can be detected, leading to the selection of effective therapy. The internationally recognized scientist will share recent progress in cancer biology that is likely to influence diagnosis and treatment in the future.

• Anyone with questions about how to cope with short- or long-term pain will find valuable answers in the Dec. 5 lecture titled "Help for Pain." Henry Van Hassel, D.D.S., Ph.D., dean of the School of Dentistry, has done pioneering research on

how pain is conducted through the central nervous system. As an endodontist, Van Hassel has done extensive work with root canals, formerly considered a painful procedure. His talk will focus on acute or chronic pain felt anywhere in the body. He will explain the chain of events between the external stimulus and the sensation of pain, and discuss how we can interrupt that process to find relief.

• What is premenstrual syndrome? Diana Taylor, R.N., M.S., nurse practitioner and director of the OHSU Menstrual Disorders Clinic, will discuss her current research findings during the Feb. 6 lecture, "PMS — Fact or Fad?" Taylor has spent the past five years studying the biological, social and psychological aspects of menstruation and the disorders that affect nine out of 10 menstruating women. Five out of 100 women suffer from severe PMS symptoms that affect their social or occupational lives. Taylor will discuss her research aimed at determining appropriate assessments and treatments for PMS sufferers.

• One of the most important ingredients in a healthy life style is stress management. On March 6, M. Roberts Grover, M.D., will discuss "Coping With Stress — Keeping Healthy." Assistant director of medical student education in psychiatry, Grover is well known in the Northwest for his humanistic approach to stress management. He has long been interested in the interaction of mind, body, environment and stress. He will explain how our belief systems and attitudes — not the events themselves — often determine whether the stress we feel is harmful or helpful. Grover will talk about the relationship between stress and illness, and will explain how we can use our belief systems and behavior to positively manage stress in our daily lives.

• "Kidney Stones — New Concepts in Prevention and Treatment" is the topic of the April 3 lecture by Eugene Fuchs, M.D.,

a urologist who specializes in removal of kidney stones. About 150,000 Americans each year seek treatment for kidney stones, the mineral deposits that may cause sudden, extreme pain and obstruction of the urinary tract. Men are three times as likely as women to develop the stones, and about half of all kidney stone sufferers experience a second bout within five years of the first attack. Fuchs has developed important modifications to improve a new ultrasound technique for stone removal. He will discuss ultrasound and shock wave techniques, two alternatives to conventional kidney stone surgery that reduce pain of treatment, shorten hospital stays and speed recovery. He will

also explain how kidney stones develop and what we can do to prevent them.

All lectures in the series will be held at 8 p.m. in the OHSU Library Auditorium. There is no charge, and free parking is available near the Library's front door.

The Marquam Hill Society is a group of Oregon citizens committed to furthering understanding between the OHSU and the people it serves. The society sponsors the annual lecture series as an opportunity for the lay public to hear outstanding members of the university faculty discuss timely and important issues relating to health.

For more information about the lectures, call the Office of University Relations, 225-7686.



Dr. Neil Buist



Dr. Edward Keenan



Dr. Henry Van Hassel



Diana Taylor



Dr. M. Roberts Grover



Dr. Eugene Fuchs

## Project offers counseling to couples after loss of baby

Everyone wants to share in the joy of a new baby. But the special needs of couples who lose a baby are often neglected. Frequently the parents know very little about their baby's death and are unsure how to handle the many decisions they may need to make about future pregnancies.

"Did I do something wrong?"

"Why did our baby die?"

"Will we ever be able to have a healthy baby?"

Ellen Magenis, M.D., OHSU professor of pediatrics in the School of Medicine and of medical genetics at the Crippled Children's Division, and Karen Kovak, genetics associate at CCD, are giving people answers to these important questions.

Magenis has received a three-year, \$230,434 federal grant for a new, unique program that offers counseling and diagnostic services to couples who have lost a baby in the second half of pregnancy or within a week after birth. She expects about 250 couples per year at six health care facilities in Oregon to participate in the project and hopes the program will be a model throughout the Northwest.

The need for such a service is great. About one pregnancy in 100 that lasts longer than 20 weeks ends in stillbirth and slightly fewer than that, about eight in 1,000, result in neonatal death (at less than seven days).

The project is funded by a grant from the Department of Health and Human Services, Maternal and Child Health Section. In addition to Magenis and Kovak, five investigators have major roles in the project: Paul Kirk, M.D., professor and chairman of obstetrics and gynecology; David Linder, M.D., professor of pathology in the School of Medicine; John Reynolds, M.D., professor of pediatrics and director of the Neonatal Intensive Care Center; Jonathan

Zonana, M.D., associate professor of medical genetics at the Crippled Children's Division in Eugene; and Jake Reiss, M.D., pediatrician and geneticist at Kaiser Permanente.

In addition to the service for couples, the grant provides for continuing education for physicians and other health professionals throughout Oregon on the importance of learning why a fetal or neonatal death occurs. Currently, diagnostic testing is not routinely performed on fetuses and infants who have died.

Often, Kovak says, couples who have lost a baby will want genetic counseling before planning another pregnancy. Many times, not enough information is available about why their baby died to provide effective genetic counseling. Magenis and Kovak hope this will change.

"Part of the reason the information has not been available up until now is money," says Kovak. "Most insurance does not pay

for diagnostic services in the event of a fetal or neonatal death." For those who participate in the project, Magenis' grant will cover these costs.

During the term of the grant, couples who experience a stillbirth or neonatal death at University Hospital, Bess Kaiser or Kaiser Sunnyside Medical Center, Portland; Salem Hospital; St. Charles Medical Center, Bend; Sacred Heart General Hospital, Eugene; or Rogue Valley Memorial Hospital, Medford, will be given the opportunity to take part in the program. Those who participate will first receive bereavement counseling through already existing resources.

The couple's health care professional will then gather information about family, pregnancy and delivery history. Project staff, along with a team of representatives from the participating hospitals, have determined what diagnostic studies should be done, depending upon the type of

death and the condition of the body.

The information gathered, along with photographs of the infant and results of a pediatric examination, will be sent to Magenis and Kovak. They will use it to gather statistical data about causes of stillbirths and neonatal deaths.

More importantly, the information gathered in each case will help in making a diagnosis about why the death occurred. The information on each infant will be sent to the family's physician along with a follow-up plan.

Have a couple taking part in the project may have questions about why their baby died and what risks they may have to face in future pregnancies. If they decide to have another child, they can be advised about what type of monitoring and tests may be needed during the pregnancy. Or, a couple who participates in the project may be reassured that their next baby is likely to be a healthy baby.

## Newsmakers

Howard S. Mason, Ph.D., professor emeritus of biochemistry, recently received the 1985 Howard Vollum Award for Distinguished Accomplishment in Science and Technology from Reed College. Vollum, for whom the award is named, was a co-founder of Tektronix and serves on both the OHSU Board of Overseers and the Reed Board of Trustees. Mason's research extends into several areas of biochemistry. The award was given for his discovery of new large categories of enzymes involved in oxygen metabolism. This discovery has become important in understanding how

chemicals in the environment cause cancer, many aspects of general metabolism, the effects of oxygen deprivation on the heart and other tissues, and the respiratory enzyme upon which the survival of all oxygen-requiring tissues depends. A new branch of chemistry, inorganic biochemistry, has emerged partially as a result of his work.

Douglas Norman, M.D., associate professor of medicine and director of the End Stage Renal Disease Program, and John Barry, M.D., chairman and professor of

urology and director of the Renal Transplant program, were co-authors of an article published in the Aug. 8 *New England Journal of Medicine*. The paper detailed a clinical trial using OKT.3 monoclonal antibodies to treat acute rejection of kidneys transplanted from cadavers. Norman was interviewed on CBS News and National Public Radio News, and information about the research was reported in the *San Francisco Chronicle* and several Northwest newspapers. Approval of OKT.3 for clinical use is expected from the federal Food and Drug Administration in early 1986.



# Major neuroscience research centered at OHSU

Something exciting is happening here.

So says Dr. Earl Zimmerman, an internationally acclaimed neuroendocrinologist and recently named chairman of neurology, who, like many others, believes that within the next 10 years the OHSU will be regarded as a leading United States neurosciences research center.

Zimmerman is the latest addition to a steadily growing corps of scientists on Marquam Hill devoted to understanding how the brain controls our emotions, body temperature, sexual drives, hunger, thirst, pain and pleasure.

This broad-based group of researchers uses a diverse array of scientific techniques to answer difficult questions about the nervous system. At one end of the spec-

*Understanding how the brain works is a frontier of science still in the early days of exploration and discovery.*

trum is Dr. Edward Herbert, who applies recombinant DNA technology to understand the genetic structure of brain substances. At the other end is Zimmerman, who, with his colleague Dr. Gajanan Nilaver, transplants pieces of brain tissue from one animal into another. Between them are scientists like Drs. Richard Allen, Vaughn Critchlow, Monte Greer, Martin Kelly, Alfred Lewy, John Resko, Oline Ronnekleiv, Fredrick Seil and Eckard Weber, who track the action of chemicals through the nervous and endocrine systems of the body.

The common denominator among all these scientists are the fifty-plus brain peptides discovered within the last 10 years. Brain researchers expect to uncover hundreds more of these tiny molecules, the vital link between mind and body.

The peptides are cut from master proteins and serve as the critical communication link between the endocrine and nervous systems. Each peptide modulates or influences a specific kind of cell behavior. A peptide can serve as either neuromodulator or neurotransmitter in the nervous system, or as neurohormone in the endocrine system.

Thus, a single peptide can serve as a common messenger molecule between the nervous and endocrine systems. Pituitary peptide hormones derived from master molecules, for example, may be directed to the adrenal gland in response to stress, the thyroid gland to control cellular respiration, or the ovaries to release an egg for fertilization.

Through this interaction between the nervous and endocrine systems, complex behavioral response can occur.

"There is great plasticity in the nervous system," Zimmerman says, noting that the brain can rebuild itself by modifying its connections in response to injury, aging and transplantation.



Drs. Gajanan Nilaver, left, director of the Neuroendocrine Laboratory, and Earl Zimmerman, chairman of neurology, joined the OHSU earlier this year. They continue work begun at Columbia University on transplanting brain tissue in mice.

He and his colleagues at Columbia University in New York City successfully treated genetically infertile mice by transplanting normal brain cells into the hypothalamus. The transplanted cells made the appropriate connections in the hypothalamus to trigger the release of hormones necessary to restore reproductive capacity in the infertile mice.

Results in the transplanted females were dramatic. They became pregnant, had normal deliveries and successfully nursed their litters. Transplanted males also matured sexually.

Although Swedish researchers have conducted brain cell transplants on two patients with Parkinson's disease, Zimmerman feels that transplants on humans in this country are years away. Still, the technique offers hope in the future for individuals who lack a particular brain chemical or the nerve cell that produces it.

Fredrick Seil is also interested in brain transplantation and the ability of nerves to remodel themselves in response to damage, such as a spinal cord injury or stroke.

Seil, director of the Veterans Administration's national Office of Regeneration Research Programs, has shown that when one set of nerve cells is destroyed, a second set will compensate by sprouting additional branches. These compensatory changes can be reversed at a later stage by transplanting the same type of nerve cell originally destroyed. This restores the system to normal.

Regeneration and transplantation are two techniques to restore damaged nerves and hormonal deficiencies. But the ultimate success or failure of these techniques is governed by chemical substances, such as peptides and hormones, which owe their existence to the supreme commander, the gene.

A group of OHSU researchers is analyzing the role of hormones in the nervous system at the genetic level. Edward Herbert and his colleagues are gathering exciting insights on how the nervous system works and finding innovative tools that promise to improve the human condition. Their work allows us to go from peptide to gene and back again.

Herbert, director of the Institute for Advanced Biomedical Research, and several other university researchers are interested in the master proteins that give rise to smaller peptides as part of our response to stress and pain.

Herbert, Richard Allen, Eckard Weber and the medical school's own dean, Dr. John Kendall, have all studied the opioid peptides and their role in mediating our stress and pain responses.

Herbert uses recombinant DNA techniques to analyze the structure, function and regulation of brain peptide genes. Recombinant DNA technology involves a modification of genes and their insertion into bacteria or other cells. This technology gives Herbert the tools to determine how peptide genes in specific regions of the brain can be turned on or off.

Weber and his associates study brain peptides to understand both normal and abnormal brain function. They are particularly interested in the molecular basis of mental illnesses, such as schizophrenia.

Weber, the first senior investigator recruited by Herbert to work in the IABR, is skilled in isolating brain peptides, present in extremely minute quantities in the body. From this, he and other scientists are able to characterize the structure of peptides and how structure relates to function.

Allen, an endocrinology researcher, is interested in what regulates the conversion of the master molecule into smaller peptides during pituitary development. Dean Kendall, like other brain researchers, hypothesizes that endorphin brain peptides act as natural pain killers, and that understanding of the body's own opiates may lead to better treatment of shock victims.

Between the molecular biologists and the transplant researchers are several OHSU scientists looking at the chemical messengers that travel from the brain to glands throughout the body.

One group is keenly interested in the hormones essential for reproduction, such as estrogen and luteinizing-hormone-releasing hormone (LHRH).

Martin Kelly, a physiologist, studies the electrical "excitability" of brain cells that release LHRH and how that electrical impulse is influenced by estrogen, the hormone synthesized by the ovaries.

John Resko's work is helping to redefine the longstanding belief that estrogen is exclusively a "female" hormone and androgen exclusively a "male" hormone. He has shown that through a chemical process called aromatization, androgen can be converted to estrogen. The capacity for aromatization is found in the same brain areas that control reproductive behavior and pituitary hormone release. Resko is chairman of physiology.

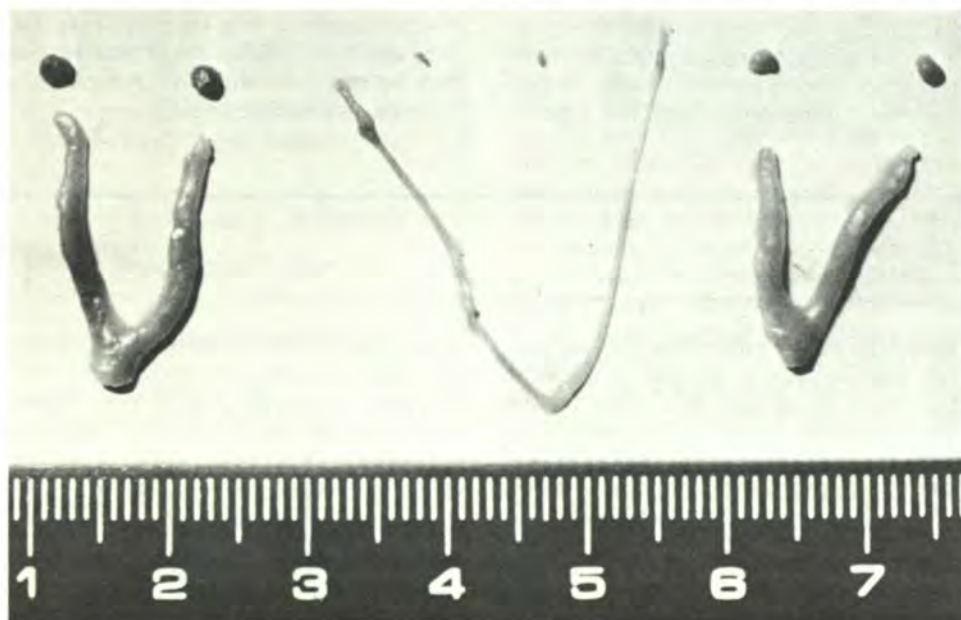
Oline Ronnekleiv, a physiologist, researches the brain centers that serve as clocks in regulating the release of LHRH. Reproductive cycles in mammals are highly sensitive to certain environmental cues, such as light and dark. Her results point to the role two brain clocks play in the appropriate timing of the release of LHRH. One, the suprachiasmatic nucleus, is directly connected to nerve fibers leaving the eye. The other, buried deep in the brain, is the pineal gland, which is indirectly connected to the eye.

Alfred Lewy, a psychiatrist, is also interested in the pineal gland and its influence on the biological clock. He was one of the first scientists to directly link light exposure with preventing the release of the hormone melatonin from the human pineal. His work has important implications for people with such sleep and mood disorders as winter depression, jet lag and insomnia caused by a disturbance in this internal timekeeper.

Two other prominent OHSU researchers have devoted their careers to the study of hormones secreted by the pituitary and thyroid glands. Vaughn Critchlow, director of the Oregon Regional Primate Research Center, and his associates have identified the region of the brain that inhibits growth hormone secretion. When the inhibiting region is removed from the brain, animals grow to extreme sizes. Humans who lack the inhibitor have overactive secretion of growth hormones, and also grow to abnormal sizes.

Monte Greer, head of endocrinology, and colleagues were among the first to demonstrate the importance of the hypothalamus in controlling thyroid function. The thyroid is crucial to physical and mental growth and the ability to metabolize food. A thyroid that secretes too much hormone causes weight loss, nervousness and hyperactivity. Greer is recognized worldwide for his treatment of thyroid disorders.

Understanding how the brain works offers a formidable challenge to biomedical researchers. It is a frontier of science still in the early days of exploration and discovery. Only through the concerted efforts of scientists like those at the OHSU, who use a wide range of experimental approaches, can we begin to understand the molecular and genetic basis of nervous system disorders.



Reproductive organs of female mice studied by Zimmerman and colleagues illustrate the result of brain tissue transplants. At left are ovaries and uterus of normal adult female mouse; center, of genetically infertile mouse; at right, of a previously infertile mouse made fertile through treatment. Size of organs is shown on centimeter scale.



# High school program enhanced for Nov. 7 event

(continued from page 1)

nutrition and metabolism, nervous and psychiatric disorders, family relations and child care, alcohol and drug dependency, hearing and vision disorders, kidney and lung function, genetics, and dental pain.

The Research Convocation is sponsored by the OHSU Board of Overseers and the Medical Research Foundation of Oregon.

## Cancer lecturer featured

In addition to individual exhibits and researchers, the Research Convocation will feature the third annual Mark O. Hatfield Biomedical Research Lecture, which, is made possible by an endowment from

three Portland citizens. This year's speaker is J. Michael Bishop, M.D., professor of microbiology and immunology and director of the G.W. Hooper Research Foundation at the University of California, San Francisco.

Bishop is a member of the National Academy of Sciences and winner of numerous national and international awards, including the Albert Lasker Basic Medical Research Award. He is noted for his ability to make important scientific concepts understandable and interesting to a general audience.

In his talk on "Cancer Genes: An Enemy Within," Bishop will explain that regardless of the many types or causes of cancer,

they all appear to arise from a common genetic keyboard within every living cell. The work of Bishop and other researchers is helping to reveal how these enemy genes are activated, and may eventually contribute to the prevention or better treatment of cancer.

## Two sessions offered

Because of an enthusiastic response to the high school program, first offered last year, two special sessions for students have been scheduled this year. In a program titled "The Inquiring Mind," high school students and their teachers will be greeted by Laster and hear short talks on the field

of research by Bishop and prominent OHSU scientists. The students will also be able to view the convocation exhibits and discuss research career opportunities with OHSU faculty and students representing the university's three professional schools — dentistry, medicine and nursing.

The high school program, says Arthur Brown, Ph.D., is designed "to make students aware of the challenge of health science research in acquiring the knowledge essential for treating and eliminating disease. We also want to make the students and their teachers aware of possible career opportunities in biomedical research." Brown is associate dean for academic affairs at the School of Dentistry and chairs the subcommittee that planned the high school program.

"We've asked Dr. Bishop, the convocation guest speaker, to tell the students what motivated him to become a research scientist and what a research career is like as a way of life. Our own scientists will speak about specific types of research careers. We want to present biomedical research as a human endeavor," Brown said.

Brown, who is also professor of physiology at the School of Medicine, will explain the work of scientists engaged in basic research. Michael Wall, M.D., associate professor of pediatrics, School of Medicine, will discuss clinically applied medical research; and Carol Howe, D.N.Sc., C.N.M., associate professor of family nursing, School of Nursing, and associate professor of obstetrics and gynecology, School of Medicine, will talk about public health research. Lesley Hallick, Ph.D., associate professor of microbiology and immunology, School of Medicine, will introduce Bishop's presentation.

## Parking provided

Parking is available in the OHSU's newly expanded parking areas. There will also be a park-and-ride lot at the Neveh Shalom Synagogue (S.W. Dosch Road and Peaceful Lane) with a free shuttle bus running every 20 minutes. Handicapped parking is located near the OHSU Library.



Attentive future scientists crowd halls to hear Dr. Stephen Miller, chief of plastic surgery, explain exhibit at earlier Research Convocation. This year's expanded program will draw students from high schools statewide.

# Convocation exhibits showcase wide array of projects

See firsthand what is being done in areas of research important to your health on Nov. 7. Sampling of topics covered includes vision, hearing, asthma, nutrition and transplants.

Just a few of the subjects to be covered during the Fourth Annual Research Convocation are:

• **Preemie blindness:** A new national multimillion-dollar eye research project to study a promising treatment for the primary cause of blindness among premature infants — retinopathy of prematurity — will be headquartered at the OHSU. It is estimated that more than 2,000 infants each year suffer eye damage from this disease, and approximately one-quarter of them will be declared legally blind. Cryotherapy, the treatment to be studied, involves freezing a small segment of the white portion of the eye to arrest the growth of abnormal tissue inside the eye.

• **Cancer genes:** Researchers in the Division of Hematology and Medical Oncology are studying a particular gene that is very active in cancer and leukemia cells. This gene is also present in normal cells, but is much less active there. OHSU scientists are studying how this and related genes are suppressed in normal cells, because knowledge of this process may lead to an understanding of what has gone awry in leukemic cells.

• **Osteoporosis in men:** An OHSU study shows that not only women but men are at risk for fractures and poor posture as a result of age-related mineral loss from bones. Several factors including kidney function, dietary calcium and protein intake, and vitamin D levels influence the rate of loss. This information can help physicians understand, and possibly prevent, osteoporosis in men.

• **Meningitis in newborns:** Researchers in an OHSU laboratory have found that certain types of bacteria — including those that cause meningitis in newborn babies — are able to utilize iron in the body to grow and produce disease. By studying this process at the molecular level, they hope to contribute toward the development of a vaccine.

• **Fish as brain food:** The principal building blocks of the fatty tissue of fish — omega-3 fatty acids — have a number of health-enhancing properties. OHSU research suggests that dietary omega-3 fatty acids, also found in certain vegetables and human milk, are essential for normal development of the primate retina and brain. It is important that pregnant and nursing women as well as infants consume enough of this nutrient.

• **AIDS virus:** School of Medicine scientists have found that seminal fluid from patients with the acquired immune deficiency syndrome contains the virus (HTLV-III) believed to cause the deadly disease. Their findings, suggesting that the male reproductive tract is a reservoir for transmitting the virus, may help uncover ways to limit its spread.

• **Transplant drug toxicity:** The new drug cyclosporine, a potent suppressant of the body's immune system, has led to improved success with organ transplants. Unfortunately this drug can also impair kidney function. An OHSU study shows that this side effect may be modified by co-treatment with other drugs.

• **Earphones and antibiotics:** Certain antibiotic drugs, the aminoglycosides, can damage patients' hearing. The drugs are used to treat bacterial infections in hospitalized patients, who may unwittingly increase the risk of hearing loss by listening to "Walkman-type" radios or cassette players at a high volume. The combination of the loud noise and the drugs can lead to an almost total loss of hearing.

• **Implantable hearing aid:** Some people with a severe hearing loss who are unable to use a conventional hearing aid may benefit from a new device implanted in the bone of the skull. A joint study of patients in Portland and other cities indicates promising results: better sound reproduction and less distortion than with the awkward, externally worn hearing aids currently available to these patients.

• **Loss of a spouse:** Two separate OHSU studies have examined the experience of the survivor after the death of a husband or wife. One group of researchers looked at how physicians could improve communication with surviving spouses. The other studied specific ways that widows and widowers tend to cope with their loss and grief. Both groups offer suggestions for health care professionals working with people who have lost spouses.

• **Huntington's disease marker:** Huntington's disease is a severe degenerative nervous system disorder passed through the genes of families. The location of a genetic marker related to the Huntington's disease gene has been pinpointed to a specific region of a chromosome by an OHSU laboratory. This step in conjunction with other tests will aid in the early diagnosis of this disease, which usually appears late in life.

• **Asthma mortality in the West:** Scientists in the departments of medicine and physiology have found that between 1979 and 1983, the death rate from asthma increased by 87 percent in Oregon, 44 percent in Washington and 56 percent in California. During the same period, the rate increased by only 10 percent in the United States as a whole. The researchers don't yet know why this disparity exists, but suggest further study of the treatment of asthma patients.

• **Retinitis pigmentosa:** The OHSU has been designated as a Retinitis Pigmentosa Center to study a group of hereditary eye diseases characterized by night blindness, tunnel vision and eventual blindness.

If you're moving, please cut off the address label on the back page, correct it, and mail it to the OHSU News.

If you or your friends would like to receive regular notices on OHSU lectures and events relating to human health, please send name(s) and address(es) to the Office of University Relations, 3181 S.W. Sam Jackson Park Rd., Portland, OR 97201.



# New forensic division teaches specialized skills

Faculty members of the OHSU School of Dentistry have for many years been called upon to help identify bodies of people who have died under questionable circumstances. Thus the school's forensic expertise has provided a service to law enforcement officials and to the families of the deceased.

But only recently has this application of medical knowledge to legal cases been developed into a structured educational program. The Division of Forensic Studies in the dental school's Department of Oral Pathology is one of only two programs in the country offering postdoctoral work in forensic sciences, according to Murray Bartley, D.M.D., Ph.D., chairman and professor of oral pathology. The other program is at the University of Texas Dental School in San Antonio.

Dentists can earn an advanced degree in oral pathology with an emphasis in forensic odontology (the study of teeth for legal purposes), Bartley says, or take a short, intensive course to improve their forensic skills. The division also offers a training program in forensic sciences to police officers and other law enforcement officials.

"With the increase in the general population and in the incidence of serious

**"Because of his background and experience, Dr. Sorenson recognized a dark spot on an X-ray of the dead woman's skull."**

crimes, especially serial murders, there's a greater need today for forensic services," says Bartley. "A disaster such as an airplane crash can involve many more deaths than in past years and demand a cadre of well-trained people to identify the bodies.

"In addition, it's better known that dental work provides the best method of identifying a body, because the teeth are hardy and dental treatment is distinctive, allowing very specific identifications. And our techniques are improving all the time through research, an important component of the division," Bartley says.

The idea for the program originated with John Lundy, Ph.D., a forensic anthropologist and Multnomah County deputy medical examiner. He first approached the dental school because, traditionally, positive identification of bodies has been based on dental work. But he wanted to bring together experts from many different fields, including law, medicine, anthropology, even entomology (the study of insects). He felt an interdisciplinary approach would help police and medical investigators solve difficult cases.

"It often takes the combined skills of many different experts to make an identification," Lundy says. "The skill of a pathologist, for example, who is trained to identify human tissue, can complement that of an anthropologist, trained in human skeletal variation."

Lundy wanted to bring experts in various fields together not only to identify bodies but to teach. The School of Dentistry agreed to make classroom space and some laboratory equipment available. When the division took shape last year, Lundy, a volunteer assistant professor in the dental school, was named its director. Classes began in September 1984.

The division includes 25 volunteer faculty members in the School of Dentistry in such fields as oral pathology, radiology and dental materials; the School of Medicine in such fields as toxicology, forensic psychiatry and forensic entomology; and by the state and county medical examiners' offices, the Northwest Forensics Laboratory, the Portland City Attorney's office, the Portland Police Bureau, Northwestern School of Law at Lewis and Clark College, Portland State University and Washington State University, Pullman.

The graduate courses, offered in concentrated form for short periods such as two weeks, give dentists from around the Northwest the opportunity to learn specific skills, thus increasing their expertise to help solve forensic cases. They get practical experience as well as technical and theoretical training in scientific and legal fields.

In the training program for nondentists, eight different continuing education courses, ranging from two to 16 in-class hours, have been well-attended by police officers and others.

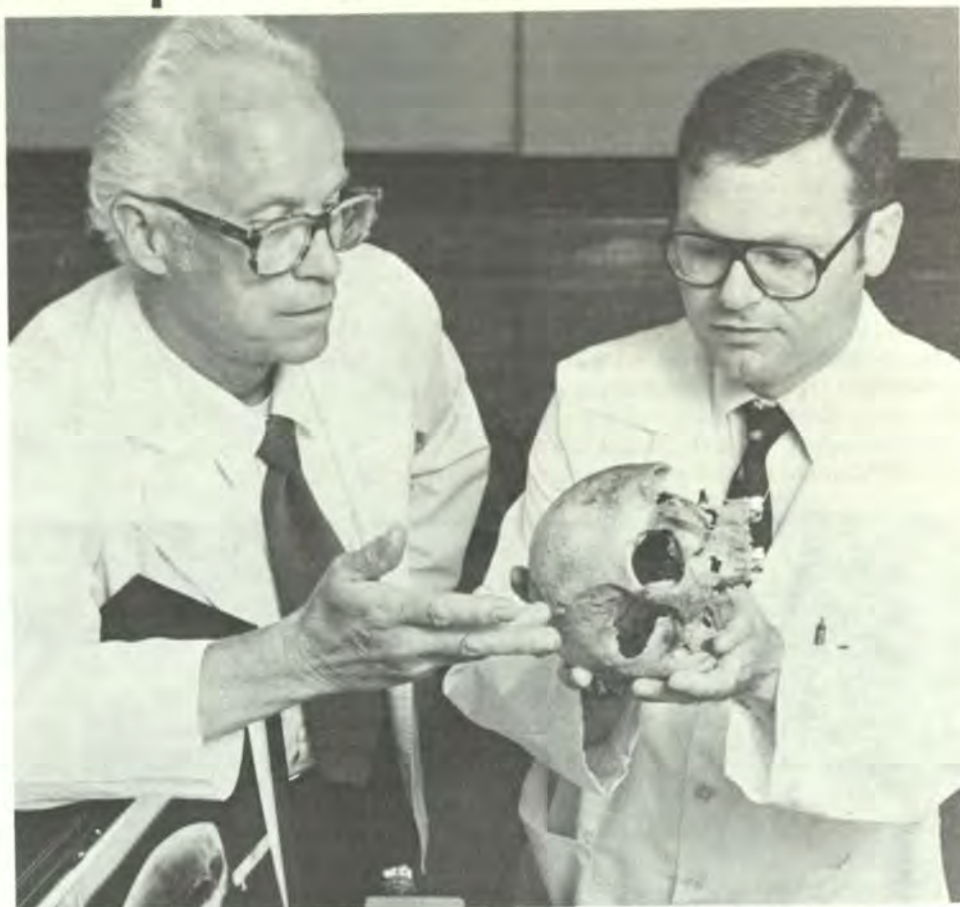
In recent months two cases have focused public attention on faculty members of the Division of Forensic Studies. OHSU experts, working in conjunction with the Multnomah County medical examiner's office, identified the skeletal remains of two young Seattle-area women believed to be victims of the so-called Green River Killer.

More recently a serviceman's remains found in Southeast Asia, after being returned to the Portland-area family, were examined at the OHSU to determine whether they could be positively identified. In the opinion of the local experts, they could not.

Lundy credits the interdisciplinary approach of the Forensic Studies Division for the identifications of the two Seattle women.

Although medical examiners rely primarily on dental records, medical records, X-rays of the skull and other bones, chemical analysis and even insect life cycles, identification often comes down to the "gut feeling" of an experienced forensics expert, Lundy says.

Fred Sorenson, D.M.D., chairman and professor of oral radiology, made the final identification in one of the recent Green River cases. "Because of his background and years of experience, Dr. Sorenson recognized a dark spot on an X-ray of the dead woman's skull as the result of a neurological procedure that had been performed on the victim," Lundy says. "Those of us who don't do clinical radiology would never have recognized it."



Drs. Fred Sorenson, left, and John Lundy discuss unique characteristics of skull they identified as belonging to a Seattle woman, possible victim of the Green River Killer.

Sorenson and Lundy then compared the X-rays of the skull with X-rays from the files of the task force investigating the Green River killings. A match resulted.

This particular skull had few teeth with identifiable dental work. But in another situation an oral pathologist might have been called in to make the identification based on the teeth, Lundy says. Staff in the Dental Materials Laboratory can take a sample of a filling and may be able to determine approximately how long ago the tooth was filled, what kind of material was used and in what part of the country the work was done.

The first question the forensic team asks when faced with the need to identify remains is, are they from a human? "When all we have are fragments of skeletonized remains, it's not always easy to determine whether they are human," says Lundy. "Often they are from various animals. I am becoming an expert at identifying bones from different types of deer found in the Northwest."

The next questions are: Was the person male or female? Of what race? How tall? How old? and the question most often asked, and the most difficult of all to answer: How long has the person been dead?

Sex is usually determined by the structure of the pelvic bones: the female pelvis is wider and rounder to allow for childbirth. Also, the male skull after puberty takes on different characteristics with a thickening of bone, a stronger brow and larger muscle attachments.

The skull is important in determining race. The nasal area is high and narrow in a

white, broader in a black, oval-shaped in an Oriental. The jaw has a distinctive shape in different races.

To establish how tall a person was, a forensic expert measures a leg bone with an osteometric board, which looks much like the device used to size feet in shoe stores. Height is calculated using formulas developed after World War II by researchers comparing the skeletons of war dead with their induction records.

In adults, age may be determined by examining certain bones that wear in known patterns as humans age. In a young person the developmental stages of the teeth often help establish the age.

For a short time after death, body temperature and the degree of rigor mortis help the forensic expert determine the time of death. But after a person has been dead longer, the life cycles of insects found on or near the body may be used to help gauge how long a person has been dead. Even later, biochemical techniques can be used to examine the protein composition in the bone marrow cavity. The amount of protein remaining indicates an approximate date of death.

The variety of these techniques used to answer questions about a death demonstrates the need for experts from different fields, whose knowledge and experience are often combined to make a single identification.

"With the group of people we have assembled for the forensic studies program, we can give valuable assistance to medical examiners' offices and offer a wide range of educational opportunities to other professionals," Lundy concludes.

## Sun, clowns, balloons mark picnic for neonatal unit graduates

The sun shone on 105 "graduates" of the OHSU's Neonatal Intensive Care Center and their families and friends. More than 600 people gathered on a Saturday afternoon in August to celebrate the many success stories that have come out of the NICC.

In Gabriel Park in Southwest Portland, a nurse in clown costume greeted a small child. "He's doing so well! It's wonderful to see him," she said as she tied a helium balloon to his stroller.

Nearby, two families with twins born the same day in 1984 shared a picnic blanket. While four children eyed each other cautiously, four parents renewed their acquaintance and discussed the progress the children had made since their stay 18 months ago in the NICC, a unit of Doernbecher Memorial Hospital for Children.

Doernbecher, which occupies the top floors of University Hospital, is the oldest and largest pediatric facility in the state. The NICC, also Oregon's oldest and largest, is recognized nationally for its innovative work in caring for distressed newborns.

Activities at this summer's picnic included a water balloon fight, gunnysack races, pony rides, wandering mimes and a toy walk where children could win toys donated by hospital volunteers.

People gathered from as far away as Medford, Ore., and Walla Walla, Wash., for the third reunion picnic. Prizes were given for record setters: the youngest graduate attending (two months old); the smallest at birth (one pound, five ounces); the one who had stayed longest in the center (10 months); and the oldest (a 21-year-

old woman whose own child, a premie, was in the NICC in 1980).

Held every other year, the event is put on by center nurses. Elaine Waldapfel, staff nurse, chaired the committee this year; she also gives credit to 16 sponsors for donating money and goods and to a group called Parents Supporting Parents, Inc.

Parents Supporting Parents, founded four years ago, makes visits to new parents of premature and critically ill infants, holds regular meetings and publishes a newsletter. The group provided backup volunteer support for the picnic.

The best part of the afternoon for the physicians and nurses attending, says Waldapfel, was "seeing the kids doing well and the parents in a more relaxed state. Part of the reward of our work is seeing the kids come back."



"Alumnae" Erin and Erica Jackett, 18 months old, tell it all with a kiss.



# OHSU addresses need for primary care physicians

Doctors thrive on diversity. On any given morning, your doctor could see one patient with an inflamed appendix, another who has just started an anxiously awaited pregnancy, and a third who complains of a fluttering heart.

No matter what the problem, everyone who invests time and money in a visit to the doctor expects to go home with an answer.

Now, many of Oregon's future primary care physicians are learning better ways to meet that expectation.

Through two new programs at the OHSU, medical students and resident physicians are gaining valuable exposure to the unforeseeable variety of situations they will face in their offices. In addition, future physicians are paying more attention to promoting health and keeping patients out of the hospital.

The two federally funded programs are helping to train two types of primary care physicians: family practitioners and general internists. The term "primary care physician" refers to four specialties: internal medicine, family practice, pediatrics and obstetrics-gynecology. Primary care physicians handle the majority of their patients' problems. As medical "gatekeepers," they introduce patients to their health care options, manage the majority of their health problems and, when necessary, direct them to other physicians who specialize in certain diseases, conditions or areas of the body.

During the past few years, primary care has emerged as a cost-effective route toward good health. In contrast to specialists who may treat patients with particular problems such as cancer or heart disease, many primary care doctors provide ongoing care to several members of their patients' families. They try to foresee and prevent problems before they become crises.

"The family doctor works at seeing the patient as a whole person, not just someone with a disease or a problem," says Robert Taylor, M.D., chairman of the Department of Family Medicine.

The department recently received a three-year, \$400,000 training grant from the Bureau of Health Professions to support the new curriculum, which will reach the 90 medical students accepted to the OHSU each year. Now, in addition to their traditional training, first-year medical stu-

dents are studying and practicing their own regimens for fitness and healthful life styles. The course may help them persuade future patients to do the same. As students progress through their studies, they will leave campus to work with established physicians in the community.

The increased emphasis on office care rather than hospital experience is vital to medical education, says Taylor, because without it, "medical students can graduate without enough knowledge to care for the ambulatory patient."

"The idea of primary care," he explains, "is to reduce the need to hospitalize patients."

Another idea behind the new curriculum is career education.

"Students are forced to make choices about specializing when they know relatively little about some fields," Taylor says. "We want to help them make informed career decisions by exposing them to primary care options as well as other specialties."

A second training grant intensifies similar programs for OHSU's interns and residents who are in training to practice internal medicine.

Under the direction of Donald Girard, M.D., head of the Division of General Medicine, the program focuses on preventive and ambulatory care, psychiatry, and health services for the nation's fastest-growing population group, the elderly. The four-year Primary Care/Internal Medicine Training Program is funded by a grant of \$652,601 from the Health Resources and Services Administration. The program, which began in summer, accepts eight physicians annually.

Residents study preventive medicine at two new OHSU clinics that focus on fitness and occupational medicine, rotate through outpatient clinics at University Hospital and other community hospitals and clinics, and, next year, will provide care at a Portland nursing home. Like their undergraduate counterparts, physicians in training will work in Oregon communities

under the direction of established physicians.

"Now that we are in an era of sophisticated ambulatory care, we expect the primary care physician to provide more than just general internal medicine," says Girard. "He or she should be able to provide care of the ear, nose and throat, do screening and practical ophthalmology, and provide gynecology and dermatology services."

Traditionally, internists spent only about five percent of their training time learning about care provided in doctors' offices; the majority of their exposure to patient care was in the hospital.

In practice, though, "Eighty percent of physicians' time is spent in the office or clinic — not in the hospital," says Girard.

With their increased focus on outpatient care, the two new programs should improve the preparation of Oregon's future physicians. As physicians learn better ways to promote health, their patients may be seeing fewer days in the hospital.



Dr. Kelly Scott, intern, examines Japonette Cole in the Outpatient Clinic. Two grants enable the School of Medicine to give physicians the added training needed to best treat ambulatory patients.

## Double-degree program promotes scholars, research

When the Medical Research Foundation of Oregon named its first MRF Scholar in 1982, the foundation planned to continue awarding the scholarship in subsequent years "if funds are available." Support of the program has been so good that the MRF has now selected the fourth recipient of the six-year scholarship.

Maggie Bennington-Davis, the 1985 MRF Scholar, will have tuition and fees paid plus an annual stipend for her four years of medical school and two years of postgraduate study, leading to both M.D.

### The MRF scholarship program has received strong personal and financial support from medical school faculty.

and Ph.D. degrees. Her scholarship is valued at about \$70,000.

By encouraging one promising student to go into academic or research medicine, the foundation hopes to help offset the shortage of medical school graduates who choose those fields instead of a more lucrative practice.

Bennington-Davis has already begun her research career. While studying for her master's degree in psychology at Portland State University, she worked as a research assistant at the Veterans Administration

Medical Center's Department of Psychiatry on a study that examined the behavior of patients with chronic pain and illness. She has also been involved in a three-year study with OHSU and VAMC researchers on the cognitive functions of elderly diabetes patients, and for the past three years she has worked part-time at the Pacific Northwest Psychiatric Clinic in studies involving experimental drugs awaiting FDA approval.

After being exposed to various fields during her first two years in medical school, Bennington-Davis will choose a specific area of study. Right now she says she is "leaning toward endocrinology or pharmacology," because those areas would keep her in direct contact with patients.

"Working with patients," she says, "stimulates ideas for research. I would like to act as a liaison between the research done in the laboratory and the clinical application of the research."

The first MRF Scholar, named to the honor in 1982, is James H. Bryan. Now in his fourth year at the medical school, he is working toward his Ph.D. in pharmacology. Bryan has been doing research on prostate cancer in the OHSU Hormone Receptor Laboratory and was asked to present his initial findings at the national annual meeting of the Endocrine Society, held last June in Baltimore.

Angelo Vlessis, now a third-year medical student, was the 1983 MRF Scholar. He plans to specialize in biochemistry and

write his Ph.D. thesis on the metabolism of newborns.

The 1984 scholar, David Daikh, as a second-year student is still rotating among different laboratories. Daikh has not yet chosen a specialty, but is considering biochemistry.

The MRF scholarship program has received strong personal and financial support from the School of Medicine faculty, according to Forest Amsden, executive vice president of the MRF. Medical school faculty members have pledged to donate about \$50,000 toward the scholarships. The largest single donor to the program has been the Beam Family Foundation.

The scholar program is designed not only to help a single student earn the academic credentials of combined M.D.-Ph.D. degrees, but to stimulate an awareness among students of the educational opportunities available at the OHSU, says Richard Jones, M.D., Ph.D., chairman and professor of biochemistry and president of the MRF. "The program benefits our institution 100 percent," Jones says. "For one thing, these students are topnotch and are very stimulating to the faculty. Also, because we offer this we are able to attract the attention of other able students, some of whom might otherwise go elsewhere for their schooling. For those who don't win the MRF scholarship but need financial help, sometimes funds are available through other sources."

Jones was instrumental in starting the

scholar program, along with Robert Koler, M.D., chairman and professor of medical genetics; William Riker, M.D., chairman and professor of pharmacology; others in the School of Medicine; and Georgia Lee, M.D., a psychiatrist in private practice.

Each year, incoming first-year students are notified of the MRF Scholar program. To become eligible for the funds, they must declare an interest in academic medicine or research. Applicants are reviewed by a School of Medicine faculty committee and interviewed by the dean.

The MRF is also known for its support of young scientists just beginning their careers. Out of \$348,750 the MRF donated to the university last year, \$235,900 supported 22 special "seed money" grants that allow younger researchers to begin their projects.

"Once they have the money to actually start up their labs, they can use their results to begin competing for larger grants from places like the National Institutes of Health," says Amsden.

In yet another MRF program, a total of 25 Tartar Fellowships worth \$2,000 each went to OHSU researchers just finishing their doctoral degrees, for postdoctoral work in basic and clinical research fields.

The Medical Research Foundation of Oregon, an independent group established in 1942, is supported by bequests and donations from private individuals, institutions and the National Institutes of Health.



# Offering heart transplants in Oregon may save lives

(continued from page 1)

treatment. Each year, many transplant candidates have died while waiting to be matched with donors in out-of-state programs. Those who did go elsewhere for transplant surgery carried the extra financial and emotional burdens of living away from home while waiting for a donor heart and during the months of follow-up care that are necessary.

The team expects to perform between

six and 12 heart transplants during the first year of the program. University Hospital currently diagnoses between 15 and 30 patients each year with end-stage or near end-stage heart disease, which a person must have to be considered for a transplant. Many of these patients are ineligible for transplants because of age or other illnesses, or because their disease can be treated through drugs or other surgery. Transplant candidates are younger than 50,

and generally between the ages of 25 and 40. They must be in good health except for end-stage heart disease.

Cardiac donors usually are victims of a traumatic accident who were healthy individuals until their death. Donor hearts will be obtained through the Pacific Northwest Transplant Bank, operated by University Hospital's Renal Transplant Program.

For people who are accepted as transplant candidates, the operation can in-

crease their life expectancy markedly. Without transplantation, most candidates awaiting a heart would die within six months. But of patients who do receive a transplant, 75 to 85 percent will be alive at the end of a year. Studies indicate a five-year survival rate as high as 80 percent.

After surgery, a heart transplant patient must take immunosuppressant drugs but otherwise is able to resume a nearly normal life.

The faculty invites you to take a closer look at what the OHSU is doing to help build a healthier tomorrow.

Thursday, November 7, Library & Auditorium  
**RESEARCH CONVOCATION**



**Noon to 4:00 p.m.**  
Meet OHSU scientists and visit their research exhibits.

**4:00 to 5:00 p.m.**  
Learn about new and encouraging progress in cancer research.  
"Cancer Genes: An Enemy Within" will be presented by J. Michael Bishop, professor of microbiology and immunology at the University of California (San Francisco).

**9:30 and 11:00 a.m.**  
Special programs for high school students will be featured.

## Varied tours explore education, patient care, research on campus

If you can't make it to the Research Convocation Nov. 7, you still have a chance to visit campus and see firsthand what the university is doing in the areas of research, health education and patient care.

The Marquam Hill Society Campus Tour Program offers a variety of tours, at no charge, to groups and individuals on Tuesdays, Wednesdays and Thursdays at 10 a.m. and 1 p.m.

You may choose to take a research tour and examine basic and clinical research activities with investigators involved in projects such as studying a new painless dental injection technique or investigating the effects of diet on cholesterol levels.

Educational tours that go into student labs and classrooms with faculty from the schools of dentistry, medicine and nursing are also available.

Or, you may take a general tour and gain an interesting overview of the university's research, education and clinical activities. You may also visit University Hospital and clinics, Doernbecher Memorial Hospital for Children, or the Crippled Children's Division.

Tours are conducted by members of the Junior League of Portland, the Assistance League of Portland, the Medical Faculty Auxiliary and community volunteers.

Marianne Vetto, a member of the Marquam Hill Society Steering Committee, serves as liaison between the Marquam Hill Society and the tour program, which is co-directed by Judy Carter and Anne Ballin. For more information about the tour program, or to schedule a tour, call 220-5267.

**THE OREGON  
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# NEWS

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No patient, employee, student, beneficiary or potential beneficiary of the Oregon Health Sciences University shall be discriminated against on the basis of age, color, handicap, marital status, national origin, race, religion or sex.

## Hall, Wittkop take new posts



Dr. Joanne Hall

Joanne Hall, Ph.D., doesn't like to take credit. Rather than discuss her many accomplishments, she prefers to talk about those who work with her.

As new chair of the Mental Health Nursing Department, School of Nursing, Hall values input from her staff and wants to "provide an environment in which faculty can be creative as teachers and scholars and also make contributions to the university and community." She emphasizes the importance of the nursing school faculty as a whole, saying, "It is a privilege to work with them."

"We're delighted that Dr. Hall has agreed to accept this position," says Carol Lindeman, Ph.D., dean of the School of Nursing. "She will be able to help faculty move forward in their research and develop greater quality in the school's teaching programs."

Hall, who has a master's degree in psychiatric-mental health clinical specialization and a doctorate in education, came to the OHSU in 1980 as professor and chair of family nursing, a position she held until 1983. She was acting dean of the nursing school from July 1983 through January 1984, then returned to teaching until she assumed her current position on July 1 of this year.

In that position Hall oversees Mental Health Nursing's education, practice and research activities. Her special interests, however, concern distributive nursing practice (providing long-term health care distributed throughout a patient's lifetime) and the nursing of families in crisis. Hall



Ken Wittkop

has written a number of publications on these topics, twice winning the Book of the Year Award from the American Journal of Nursing. She was honored in 1974 for *Nursing of Families in Crisis* and again in 1977 for *Distributive Nursing Practice: A Systems Approach to Community Health*.

Before coming to Oregon, Hall was a professor at Duke University, where she coordinated the graduate program in nursing. She served on the board of directors of the Oregon League for Nursing in 1981-82 and as a Landsdowne Scholar and Lecturer at the University of Victoria, British Columbia, in 1984.

Ken Wittkop has been named purchasing manager of University Central Purchasing.

Wittkop is responsible for management of the university's centralized purchasing system. "His broad range of purchasing experience made him a good person to fill the position," says Mary Burton, director of University Materiel Management.

Wittkop came to the OHSU July 26 from Power Transmission Products, a Portland firm where he spent 4½ years as materials manager. Before that, he worked in purchasing for 20 years at a heavy equipment manufacturing firm.

Wittkop says he was surprised to discover how many different types of commodities the OHSU uses and he is busy learning the needs of the various departments. He supervises six buyers and two clerical staff members.

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