MEDTIPS, December 1998

Indiana University School of Medicine

The strong link between high levels of oxidative damage to cells or DNA in cells and conditions such as Alzheimer's disease, Parkinson's disease and ALS (Lou Gehrig's disease) motivates researchers to identify the body's enzymes that repair the damaged DNA. Indiana University School of Medicine researchers are getting closer to understanding the oxidative DNA damage which occurs daily in all cells of the human body as they take in oxygen and use it for a variety of purposes. During this process, hydroxyl free radicals are produced which attack the DNA and damage it. Molecular biologist Mark Kelley, Ph.D., investigator in the Wells Center for Pediatric Research at IUSM, is studying which of the body's DNA repair enzymes recognizes various types of oxidative DNA damage and under what conditions the repair enzymes protect cells. "We look at the healthy DNA and the damaged DNA and work outwards. We identify the damage in the DNA, ask what enzyme recognizes it and then we attempt to find what regulates and controls that enzyme." He and colleagues are blocking the functions of different repair proteins to see the effect on the cells. They are also producing excess amounts of specific DNA repair genes to see if an increase of repair protein makes a cell healthy.

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A potential new weapon against sickle cell anemia has been developed by Indiana University School of Medicine microbiologist Arun Srivastava, Ph.D. Dr. Srivastava and colleagues believe a hybrid gene delivery vehicle (vector) may hold promise for the treatment of a disease that affects more than 90,000 Americans. Researchers have combined a virus called adeno-associated virus 2 (AAV), which does not cause disease in humans, with a close cousin, human parovirus B19, to develop a hybrid vector. The human parovirus B19 grows only in human bone marrow cells where red blood cells are made. The new vector targets these cells, and may be useful in targeting malformed sickle cells and delivering healthy genes to prompt the growth of "normal" red blood cells. According to Dr. Srivastava, the discovery also shows promise for treatment of hypercholesterolemia (high levels of cholesterol in the blood) and restenosis (arteries that close after balloon angioplasty). This novel gene delivery vector has yet to be tested in human trials.

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Can cord blood cells grown in the laboratory (ex vivo expansion) be safely transplanted into children who are undergoing stem cell transplant procedures? If so, this would make stem cell transplantation available to many patients who do not have a suitable bone marrow donor. Frank Smith, M.D., and his colleagues at the Indiana University School of Medicine conducting preliminary studies in cord blood transplantation have found that while stem cells grown from cord blood are capable of reconstituting bone marrow function in most children and smaller adults, non-engraftment (the bone marrow is not reconstituted) is problematic, particularly in large children and adults. One solution is to expand the number of cord blood cells in the laboratory before the transplant is done. Once the team at IUSM and other medical centers proves that this is a safe approach, they will place a genetic marker into the expanded cord blood cells to see if the cells are contributing to the growth of their patients' new bone marrow and blood.

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Patients treated for germ cell cancers (such as testis and ovarian) may have a new course of treatment following high-dose chemotherapy and stem cell transplantation. Twelve patients enrolled in an Indiana University School of Medicine Phase I trial...
received modified bone marrow cells containing a drug-resistant gene that promises to protect the healthy cells. The researchers used engineered fibronectin fragments to assist in the transportation of a retrovirus containing the drug-resistant gene into the patient's bone marrow. The drug-resistant gene is designed to help patients tolerate higher levels of chemotherapy after stem cell transplantation. Rafat Abonour, M.D., medical director of the IU Stem Cell Laboratory, said the trial provides evidence that human stem cells can be modified to contain a desirable gene and persist in these patients over a long period of time.

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New research on the life cycle of human hematopoetic stem cells reported in a recent issue of the journal Blood has taken us closer to identifying essential properties required by these cells for successful engraftment in bone marrow transplantation patients. Using immunodeficient mice, Indiana University School of Medicine researcher Edward F. Srour, Ph.D., and colleagues have identified the exact stage [G0] at which a cell looses its inborn ability to engraft. "It has been known for almost three decades that the position of these cells in the cell cycle is important for their function. Now we have identified the precise stage when ability to engraft deteriorates. We hope to determine whether a cell, which has been induced to divide and into which we have inserted a new gene, can return to G0 and again have the ability to engraft and thus produce new bone marrow cells. This potentially will have enormous impact on bone marrow transplantation."

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# # #

CONTACT: Mary Hardin
317-274-7722
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October 22, 1998
New Laboratories Will Benefit Research at IU School of Medicine

October 2, 1998
IU School of Medicine Establishes First Adolescent Sexually Transmitted Disease Center

October 1, 1998
IU School of Medicine Receives $6 Million Grant for Nationwide Study on the Genetics of Parkinson's Disease

October, 1998
October 1998 MEDTIPS

September 29, 1998
IU School of Medicine Receives Grant for Additional Research into Safety of Shockwave Lithotripsy Disease
September 18, 1998
Tea Linked To Tumor Repression, Reduction of Disease, Indiana University Researcher Says

IU Mini Medical School Starts October 13 through November 17, 1998

August 31, 1998
Deborah Allen, M.D. to Head Up Bowen Research Center and Step Down as Chairman of Family Medicine

August 25, 1998
Two IU School of Medicine Faculty Awarded Endowed Professorships

August 3, 1998
New Chief Executive
July 17, 1998

IU Medical Center

Programs Ranked Among Top in the Nation

July 16, 1998

Exposure to Toxic Substances Does Not Appear to Cause Symptoms Attributed to Gulf War Syndrome

July 7, 1998

Landmark Genital Herpes Trial Underway at Indiana University School of Medicine

Indiana University Studies Drug Which May Reduce Spread of Genital Herpes

Indiana University School of Medicine is First in State to Test New
June 5, 1998
Police Officer Uses Portable Defibrillator to Save Life; Second “Save” for IU Study

June 2, 1998
IU School of Medicine Department of Family Medicine Receives Bronze Achievement Award

Gene Anomaly Isolated Which Is Cause of Dementia

June 2, 1998
Shock Wave Lithotripsy Produces Greater Risk For Patients With Kidney Disease

May 31, 1998
High Dose Lithotripsy Impairs Kidney Function, Researchers Say

May 31, 1998
Nerve-Sparing Surgery
Preserves Reproductive Function In Testicular Cancer Patients, Analysis Shows

May 22, 1998
IU Researchers First To Test Gene Transfer Using Fibronectin Particles in Testicular Cancer Patients

May 18, 1998
New Anti-Angiogenesis Agent Found To Be Safe In Initial Tests In Cancer

New Combination Drug Regiment Prolongs Survival In Late Stage Lung Cancer

May 8, 1998
Two New Administrators Join Indiana University School of Medicine

Alzheimer Disease Patients Have New Treatment Option with
Metrifonate

IU Offers Mental Health Symposium for Consumers/Professionals

May, 1998

MEDTIPS

April 26, 1998
Exercise-Induced Asthma May Be More Common in Regular Exercisers Than Previous Studies Suggest

April 22, 1998
IU Sponsors Free Seminar on Healthy Eating

280 New Physicians To Take Hippocratic Oath

April 20, 1998
IU School of Medicine Receives $7.2 Million For Cancer Research

April 17, 1998
IU School of Medicine Testing Vaccine for Melanoma

March 27,
1998
Dr. Harvey Feigenbaum Gives Keynote Address

March 17, 1998
Jasper Physician Receives Virtuous Physician Award

March 9, 1998
IU School of Medicine "Evening of The Arts" Performance Benefits Homeless Community

February 27, 1998
Research Demonstrates Risedronate Increases Bone Mass in Post Menopausal Women

February 20, 1998
Primary Care at IU School of Medicine Ranked Among Top Medical Schools

February 10, 1998
Police Officer Uses Portable Defibrillator to Save Life
February 5, 1998
IU Studies
New Drugs for Parkinson's Disease

IU Arthritis Researchers Seeking Patients for Study of Knee Osteoarthritis

January 30, 1998
Media Advisory: Olympic Athletes and Drugs

January 29, 1998
IU Researchers Confirm Best Treatment for Long-Term Testicular Cancer Survival

January 14, 1998
William Baldwin Named Acting Director of Northwest Center for Medical Education

New transplant Rejection Drug Shows Significant Results; IU Team Leads Pediatric Research
Computers
Break
Impasse In
Patient-
Doctor Talks
About
Advance
Directives

January 7,
1998
IU School of
Medicine
Accepts Five-
Year Grant to
Continue
Alcohol
Research

Six Million
Dollars
Awarded to
IU Diabetes
Research and
Training
Center
The strong link between high levels of oxidative damage to cells or DNA in cells and conditions such as Alzheimer's disease, Parkinson's disease and ALS (Lou Gehrig's disease) motivates researchers to identify the body's enzymes that repair the damaged DNA. Indiana University School of Medicine researchers are getting closer to understanding the oxidative DNA damage which occurs daily in all cells of the human body as they take in oxygen and use it for a variety of purposes. During this process, hydroxyl free radicals are produced which attack the DNA and damage it. Molecular biologist Mark Kelley, Ph.D., investigator in the Wells Center for Pediatric Research at IUSM, is studying which of the body's DNA repair enzymes recognizes various types of oxidative DNA damage and under what conditions the repair enzymes protect cells. "We look at the healthy DNA and the damaged DNA and work outwards. We identify the damage in the DNA, ask what enzyme recognizes it and then we attempt to find what regulates and controls that enzyme." He and colleagues are blocking the functions of different repair proteins to see the effect on the cells. They are also producing excess amounts of specific DNA repair genes to see if an increase of repair protein makes a cell healthy.

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# # #
December 23, 1998

INDIANAPOLIS LEADERS CORNELIUS AND YVONNE PETTINGA FUND
A "CHAIR" IN AGING RESEARCH AT INDIANA UNIVERSITY

INDIANAPOLIS --- A gift from Dr. and Mrs. Cornelius W. Pettinga of Indianapolis will establish the first endowed faculty position at the Indiana University Center for Aging Research. The Pettingas established the chair to ensure ongoing support for program development and innovative research in aging at Indiana University. The endowment will be combined with matching funds from IU.

The recipient of this endowed chair is Christopher Callahan, M.D., associate professor of medicine and director of the research center. The center is headquartered in the Regenstrief Institute for Health Care at the IU Medical Center.

"There is no question that making a gift to the school means making a long-term, positive impact on the future of medicine," said Dr. Pettinga. "We knew there really wasn't any better way we could help a top investigator like Dr. Callahan move ahead with important research. This is our way of showing support for continued research in aging."

Dr. Callahan graduated from St. Louis University School of Medicine and completed his internal medicine residency at Baylor College of Medicine. He completed a fellowship in health services research at the IU School of Medicine. He has received a Career Leadership Award from the National Institute on Aging and a Paul B. Beeson Physician Faculty Scholar in Aging Research Award from the American Federation of Aging Research. In addition to serving as the director of the Center for Aging Research, Dr. Callahan is a research scientist in the Regenstrief Institute for Health Care. His interests include the recognition and treatment of late life depression and dementia.

"We are most grateful to Dr. and Mrs. Pettinga for understanding the great need there is for future research on aging," said Dr. Callahan. "Their support will help us create a more integrated and balanced program of aging research at Indiana University."

Dr. Callahan envisions his program providing a better understanding of how to translate basic discoveries into real changes in health behavior among older adults. He believes that the center can become a national model for conducting research that improves the care of older adults.

"Cornelius and Yvonne Pettinga have, without a doubt, made a significant impact on the future of research in aging," said Robert W. Holden, M.D., dean of the IU School of Medicine. "Their support, combined with Dr. Callahan's inspiring work in geriatric medicine, will make a difference to the quality of life of our older adults. We cannot show enough appreciation for what the Pettingas have done for the school and for research."

Prior to his retirement from Eli Lilly & Company in 1986, Dr. Pettinga was the...
executive vice president responsible for Lilly Research Laboratories, development and control, and manufacturing operations, including both biochemical and pharmaceuticals manufacturing. In addition, he was responsible for engineering and computer technology. He also served as president of Elizabeth Arden.

Dr. Pettinga has served as the chairman of the Indiana University Purdue University Indianapolis Board of Advisors and chaired the Heart Initiative Committee during the capital campaign at the School of Medicine. Both Dr. and Mrs. Pettinga have served in professional and volunteer leadership capacities for educational institutions, medical organizations and the arts.

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News Release Archives | Media Relations | IU School of Medicine
IU Center For Aging Receives New Grants

Indianapolis - The Indiana University Center for Aging Research recently was awarded two research grants.

Christopher Callahan, M.D., director of the center and associate professor of medicine at the IU School of Medicine, announced the award of a $1.2 million grant from the Hartford Foundation for a "Collaborative of Case Management for Late Life Depression."

The IU School of Medicine was one of only five medical schools in the country selected for the grant. Others include the medical colleges at Duke University, UCLA, University of Washington, and the University of Texas at San Antonio. The four-year, multi-state study involves testing a health care team approach to managing depression in older adults.

Dr. Callahan also received a $500,000 award from the National Institute on Aging, a part of the National Institutes of Health. The award recognizes Dr. Callahan for his promotion of aging research and for his leadership activities at the IU School of Medicine. The NIA award also recognizes an institution's commitment to aging research and enhances its research efforts.

Send to: I.U. School of Medicine
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IU School of Medicine Cardiologist Holds Patent To Increase Efficiency In Operating Room

INDIANAPOLIS--Necessity is the mother of invention. But necessity in the cardiac catheterization laboratory can cause creativity to reach a new high and the efforts of Keith L. March, M.D., Ph.D., are a perfect example of the maxim.

Dr. March, associate professor of medicine at Indiana University School of Medicine, has received patent approval for his fourth upgrade - called "continuation in part" in patent lingo - of a device used to close the hole in a vessel used as the entry point for a catheter during heart catheterizations.

He has created a device to solve a problem that arises after a catheter is removed from the femoral artery where the cardiologist inserts the catheter, threading it through the artery to the heart. When the procedure is completed and the catheter removed, a hole remains in the artery. To close the hole, cardiologists traditionally applied hand pressure to the artery until a clot developed at the site. This technique may require that a person apply pressure by hand for 30 to 60 minutes. Dr. March thought that a less time-consuming and more efficient method should be available.

In 1994, he and his associates received the initial patent for a device that, as Dr. March puts it, "sews without seeing."

The intent of their initial research was to develop a device that would close a hole in the vessel that one could not see without doing surgery, Dr. March said. The vessel repair device he and his colleagues developed and first patented in 1994, uses a group of needles that surrounds the hole in the vessel and then advance the suture thread through the vessel until it may be captured and tied together to close the hole, all without the need for direct vision.

Since the first patent, there have been further modifications made by Dr. March and his research team resulting in three additional patents.

Dr. March now holds 10 patents, all with the central theme of transferring technology from the lab to the bedside.

# # #

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December 8, 1998

Patent To Increase Angiogenesis In Coronary Treatments Issued To Indiana University School of Medicine

INDIANAPOLIS--An Indiana University School of Medicine cardiologist has designed a technique to augment the therapeutic growth of blood vessels to repair the hearts of patients with vascular or coronary disease.

Traditional therapy for these patients usually involves bypass surgery or angioplasty. However, researchers are investigating new techniques for making the heart repair itself through a process called angiogenesis. Angiogenesis is the process by which new blood vessels grow. For cancerous tumors, researchers are attempting to find methods to shut down the new vessel growth which feeds the tumor, a process called anti-angiogenesis. However, cardiologists are optimistic that the growth of new vessels in the heart may, in time, replace some invasive procedures.

Keith L. March, M.D., Ph.D., associate professor of medicine, has refined an existing technique that, although relatively new, has interesting clinical results. In an effort to increase the angiogenic response of the heart, surgeons and cardiologists are using lasers to create channels in the heart. The method is called Transmyocardial Laser Revascularization (TMR). The channels appear to encourage the angiogenic effect that nature provided as a way to heal a damaged heart.

Dr. March and his team of researchers want to use angiogenic proteins or genes which encode angiogenic growth factors to further stimulate the beneficial effects of TMR. Their research has resulted in a patent, awarded Nov. 24 to Dr. March and his colleagues. It is the 10th in a series of patents awarded to Dr. March and his research team focusing on technological improvements for clinical use.

"Some people grow blood vessels very well when needed to compensate for other blocked vessels while others, unfortunately, do not," Dr. March said. "We think there are genetic or biochemical reasons for that. Whether the patients who do not grow them well suffer from a lack of a needed growth factor or the over-abundance of a growth inhibitor, we don't know."

To offset such a difficulty, Dr. March's patent proposes that TMR be used in conjunction with biochemical or genetic materials. The angiogenic proteins or genes with encoding angiogenic growth factors will be inserted into or around the channels created by the laser at the time of the TMR procedure. Trials using only the angiogenic proteins or genes have shown promising results, as have TMR trials, but the use of the combination of the two methods to reinforce one another now awaits testing in the clinical arena, Dr. March said.

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Patent To Increase Angiogenesis In Coronary Treatments Issued To Indiana University School of Medicine

Contact: Mary Hardin
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Picture This: Indiana University School of Medicine Adds a Visual Touch to Dermatology Classroom

INDIANOPOLIS -- As the saying goes, a picture is worth a thousand words and Indiana University School of Medicine students are echoing that sentiment -- thanks to the efforts of a far-sighted, computer-savvy faculty member.

One of the challenges of teaching the classroom portion of dermatology to second-year medical students is teaching them to recognize skin conditions and diseases. The students need to see quality images of diseases and conditions, but the cost of producing enough photographs of each is prohibitive. Photocopies are not as precisely detailed.

With that in mind, Antoinette F. Hood, M.D., professor of dermatology and of pathology and laboratory medicine, put on her thinking cap and decided to utilize the benefits of modern technology. In so doing, Dr. Hood believes she has developed a comprehensive and unique teaching tool.

In 1997, Dr. Hood had students assist her with the creation of a compact disk with 100 photos of skin conditions and diseases. It was intended as a teaching tool, but there were some limitations, such as an inability to track which students were using the CD. That's when she became aware of a new computer program, WebCT.

Using the images already created for the CD plus others from various sources available in teaching collections and on the Internet, Dr. Hood was able to expand the project into an interactive, on-line teaching tool with restricted access. The restricted access allowed her to link her program with high-quality images already on the World Wide Web. All students need to access the program is a computer and a password.

Access to photos and written lectures are not the only advantage to the teaching tool. Quizzes and tests can be administered after students review the on-line information. They also can study the information at their own convenience and as many times as necessary. In other words, the classroom is always open to them, day or night, 24-hours a day.

The program also gave Dr. Hood the flexibility of tracking how many students are using the teaching tool and, best of all, grade the on-line tests for her. Since the final examination is an open book test, the students can take it at their convenience, which is a definite plus for medical students who have many demands on their time. Students also can test their comprehension of the subject with on-line quizzes before tests are administered.

Of course, there still are in-class lectures and other assignments, but Dr. Hood is optimistic she has discovered a gem of a way to help students grasp the complex world of dermatology. And, apparently her students agree. A survey of the first class exposed to the new on-line teaching tool showed rousing approval with 95 percent
recommending that other courses provide materials on the Internet.

# # #

Send to: I.U. School of Medicine
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Holiday Medtips

Indiana University School of Medicine

**The recipe for Santa Claus:** large portions of kindness, warmth and jolliness wrapped in a red suit. Shoot those ingredients through the sky powered by eight tiny reindeer and you have an ageless super hero. That from the whimsical cookbook of Morris Green, M.D., professor of pediatrics at IU School of Medicine and director of the Pediatric Child Development Center at Riley Hospital.

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You can't overdose on kindness, says Morris Green, M.D., professor of pediatrics at IU School of Medicine and director of the Pediatric Child Development Center at Riley Hospital. Dr. Green says parents should not be concerned about promoting the myth of Santa Claus to their children. The kindly Ol' Saint Nick is the embodiment of qualities every child needs to believe in and a little fantasy is healthy for children because it promotes creativity, according to Dr. Green. And, don't worry about the time your children begin to question the existence of Santa - children are very good at rationalizing incongruities. In his 40 years at Riley Hospital, Dr. Green says he has never seen a child who has been emotionally scarred by believing in Santa.

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Santa Claus is a symbolic figure the world over, which just points out that children of all nationalities and all faiths have the same basic needs, says Morris Green, M.D., professor of pediatrics at IU School of Medicine and director of the Pediatric Child Development Center at Riley Hospital. Those needs include joy, hope, love, fantasy and kindness - all the qualities that Santa represents. Dr. Green said it is important for parents to nurture these qualities in their children and a little fantasizing is healthy for children because it is the root of creativity.

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There is no nap as satisfying as the one taken after a traditional Thanksgiving dinner. And turkey eaters should know they have two things working against them if they want to stay alert, says Sara Blackburn, DCS, R.D., associate professor of nutrition and dietetics at the IU School of Medicine. First, there is the large quantity of food recently ingested that slows down the metabolism and makes one sluggish. Second, there really is a substance in turkey that makes people sleepy. It is called tryptophan, an essential amino acid used as a building block for proteins.

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If you want to talk turkey, then don't mention stuffing - at least not inside the bird.
Generations of Americans have grown up eating turkey stuffed with dressing on Thanksgiving, but they should be aware it is a health risk, says Sara Blackburn, DCS, R.D., associate professor of nutrition and dietetics at the IU School of Medicine. Salmonella poisoning is just as great a risk with turkey as it is with other poultry. The cooking of turkey or dishes with turkey broth should be done according to directions. Those who cook dressing inside the great bird run the risk of not getting the dressing hot enough to kill bacteria.

Thanksgiving dinner can be a feast complete with all the calories of nearly a day's worth of food, says Sara Blackburn, DCS, R.D., associate professor of nutrition and dietetics at the IU School of Medicine. A person easily can consume 1,600 calories during one trip to the holiday table. Tips to avoid over-eating include eat slowly and watch your portion sizes. Too much of a good thing can haunt you and your waistline throughout the holidays.

Approach the holidays and its cornucopia of food with realistic expectations and plan ahead, says David Creel, R.D., an exercise physiologist at the Indiana University Center for Weight Management. Don't center your good times around food, he advises. Instead of eating your way through the holidays, focus on activities with family, friends, and the spirit of the season. Set attainable goals and stay active. Physical activity can be as simple as walking, shopping or shooting baskets with a friend. Activities will keep you busy, replace the urge to munch and make you feel better and be healthier.

Mistletoe, poinsettias and holly are pretty to look at, but that's just about as far as it goes. All three traditional holiday plants are poisonous, says Henry Besch, Jr., Ph. D., chairman of pharmacology and toxicology at IU School of Medicine. In fact, Dr. Besch says, only about 30 percent of plants are safe for human consumption. Eating mistletoe, particularly the berries, can cause vomiting, diarrhea and produce a slowed or irregular heart beat. Poinsettias when eaten can cause an upset stomach and the plant's sap when left on the skin can cause blistering. Eating holly leaves or berries can cause vomiting, diarrhea and it also has a sedative effect.

Holidays can be the most stressful time of the year for a lot of people says psychiatrist Anantha Shekhar, M.D., Ph.D., of the IU School of Medicine. Almost everyone is faced with difficult personal relationships. Many also must deal with financial constraints. "Holiday gatherings and gift-giving magnify the intensity of existing problems and produce anxiety which can result in difficulty in sleeping, irritability and edginess," he says. He recommends planning ahead and setting realistic goals to reduce the level of anxiety during the holidays.
Don't treat yourself as a failure if your holiday plans don't work out. "Reassess what you did and didn't do and make more realistic plans for next year," says psychiatrist Anantha Shekhar, M.D., Ph.D., of the IU School of Medicine, who notes that holidays are a highly emotional time of the year. Gifts should not be considered a symbol of the value the giver places upon the recipient, he advises. The less anxious we are, the more we will enjoy the festivities.

As we become elderly we often relinquish our family leadership roles, producing a loss of identity which causes depression in many, says psychiatrist Anantha Shekhar, M.D., Ph.D., of the IU School of Medicine. This loss of control is especially evident to the elderly during the holiday season, when they become guests at functions they formerly hosted. And due to the break-up of the nuclear family, as well as death or impairment of spouse and siblings, many older Americans find themselves alone at holiday time. Dr. Shekhar recommends that younger family members try to involve their elders in holiday preparations and make them feel a part of the entire holiday season, not just of a single family gathering.

As the winter equinox approaches and the number of daylight hours decrease, those who suffer from Seasonal Affective Disorder (SAD) may feel depressed and withdrawn. Psychiatrist Anantha Shekhar, M.D., Ph.D., of the IU School of Medicine, recommends that people sensitive to the seasonal change plan ahead to deal with the apprehension that the increased darkness brings. Enrolling in a class or exercising routinely through the late fall and winter or planning a spring or summer trip may decrease anxiety. Commercially available lights or, in more severe cases, antidepressants may allow an individual to function during the shorter days of the year.

Many of us make New Year's resolutions that are unrealistic. David Creel, R.D., an exercise physiologist at the Indiana University Center for Weight Management, suggests making goals which are behavior-oriented rather than geared to a specific outcome. Resolve to walk three times a week or cut back on desserts rather than vowing to lose 50 pounds. Pledge to diminish consumption of a favorite food rather than to give it up entirely. Try to increase exercise gradually rather than overdoing it initially and losing interest. "The more enjoyable we can make our goals, the more likely we are to make a permanent lifestyle change," says Creel. Reward yourself with a new bicycle or new clothes as you reach goals and enjoy better health.

Spread out your holiday alcohol consumption by sipping your drink and eating...
before or while drinking to avoid impairment, says James Kaunig, Ph.D., professor of pharmacology and toxicology at the IU School of Medicine. The more food in your stomach, the lower the concentration of alcohol in your blood and the less likely you are to become intoxicated. "The best advise, of course, is to not drink and drive, but if you are going to drink, do so conservatively, limiting yourself to one or two drinks interspersed with nonalcoholic beverages," he says.

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November 11, 1998

IU School of Medicine Research Presented at American Heart Association Scientific Sessions

Indianapolis - Several cardiology researchers from Indiana University School of Medicine will present findings from their current research at the 71st Annual American Heart Association Scientific Sessions meeting in Dallas, November 8-11. The meeting is the world's largest gathering of scientists, physicians and health professionals involved in research and treatment of cardiovascular and cerebrovascular diseases. Listed below are highlights of the some of the IU research being presented at the meeting.

Police officers may be the key to saving lives of cardiac arrest victims. The Police As Responder Automated Defibrillation Evaluation (PARADE) trial is investigating whether training and equipping police officers with automated external defibrillators (AEDs) is an effective way to achieve rapid defibrillation in cardiac arrest victims in a semi-rural setting. Since police officers are frequently the first on the scene, they have a unique opportunity to act within the first crucial minutes following cardiac arrest. Preliminary data from the PARADE study suggests that police arrive at the scene of an emergency four minutes sooner than EMS personnel do. Early response and defibrillation is imperative for the survival of cardiac arrest victims. Five Indiana counties are currently participating in the trial (Hamilton, Shelby, Delaware, Marshall and Howard). Three lives have been saved by early police response since the trial began last year. William Groh, MD, assistant professor of medicine, is the principal investigator. Mary Newman is the research coordinator.

A bath for the heart? Researchers say that injecting prescribed drugs directly into the pericardium sac around the heart, so that they bathe the heart, may provide a longer lasting and much more reproducible therapeutic effect than traditional drug delivery. Researchers also are looking at this method as a gene therapy technique. According to principal investigator Keith March, M.D., Ph.D., associate professor of medicine, the ultimate goal would be to eliminate the need for bypass surgery by delivering growth factor to the pericardium that would stimulate the natural growth of new blood vessels when old vessels become clogged. Dr. March invented the intrapericardial drug delivery approach in collaboration with Douglas Zipes, M.D., distinguished professor of medicine and director of the Krannert Institute of Cardiology.

New technique invented at IU may improve the outcome for patients with clogged arteries. Researchers have developed a technique that uses a radioactive isotope as a source of radiation to unclog arteries and potentially protect the arteries from restenosis (re-clogging). The isotope delivers a non-toxic dose of radiation directly to the artery and has a half-life of only sixty-seven minutes. Current techniques use a radioactive wire or liquid to deliver radiation to arteries. The alternative liquid sources used currently provide a significant risk, however, because the radioactivity is long lasting. Keith March, M.D., Ph.D., associate professor of medicine, is the principal investigator and inventor of the technique.
Helping the heart regenerate lost tissue is the focus of study for Loren Field, Ph.D., professor of medicine. Most forms of heart disease are typified by cardiac muscle loss, which is due to cell death in the tissue. The heart cannot regenerate lost tissue and as a result continues to weaken. Field and his colleagues are investigating ways to promote natural cell growth or a technique to graft donor cells in a sick heart in order to regenerate tissue and strengthen muscle mass.

Too much calsequestrin, a protein in the heart, may cause heart failure in humans. Larry Jones, M.D., Ph.D., the Charles Fisch Professor of Cardiology, conducts basic research on key proteins in the heart that regulate intracellular calcium concentration and the strength of the heartbeat. The function of calsequestrin is to act as a storage depot for calcium in cardiac cells. Electrical stimulation of the heart causes calsequestrin to release this stored calcium and initiate muscle contraction. Dr. Jones and his colleagues found that mice that overproduce calsequestrin in the heart develop cardiac hypertrophy (enlarged hearts) and heart failure. The mice died at an early age and exhibited many of the symptoms commonly encountered in humans with failing hearts.

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IU School Of Medicine Receives Grant For Additional Research Into Genetics Of Bipolar Affective Disorder

INDIANAPOLIS-Indiana University School of Medicine researchers have received a $1.2 million, four-year grant from the National Institutes of Mental Health to continue their research into the genetics of manic depressive illness.

The grant is part of $12 million awarded to nine institutions to support the on-going search for the genes that cause bipolar affective disorder, more commonly known as manic depression.

John Nurnberger Jr., M.D., Ph.D., is the principal investigator for the IU School of Medicine grant. He will lead the IU research, looking for markers on seven different chromosomes (1, 6, 7, 10, 16, 21 and 22) with areas that appear related to bipolar disorder.

This grant will allow Dr. Nurnberger and his IU colleagues to proceed with similar research begun earlier under grants supporting work from 1989 to 1997. This project is now expanded from four data collection sites to eight data collection sites. Dr. Nurnberger was national coordinator for the four-site study and Indiana University will retain a coordinating role for the new project.

"Isolating the genes that cause manic depression will allow researchers to develop better therapies for the disorder," said Dr. Nurnberger. "Earlier research efforts have made great strides in identifying chromosomes involved in the disorder, so I am optimistic that some of the genes involved may be identified during the next few years." IU has been collaborating with other institutions seeking the genetic basis of the disorder which affects about 1 percent of the U.S. population. Manic depression is characterized by severe swings in high and low mood states that generally last weeks or months. Approximately 75 percent of all people affected with manic depression have at least one close relative with manic depression or severe depression.

The participants in this study are found primarily through the affiliations IU has with various local hospitals and clinics, as well as its own university facilities. Dr. Nurnberger is the Joyce and Iver Small Professor of Psychiatry and director of the Institute of Psychiatric Research at the IU School of Medicine.

The IU researchers for this grant include William Lawson, M.D., professor of psychiatry; Elizabeth Bowman, M.D., associate professor of psychiatry; Leela Rau, M. D., clinical assistant professor of psychiatry; Marvin Miller, M.D., assistant professor of psychiatry; Aimee Mayeda, M.D., assistant professor of psychiatry; P. Michael Conneally, Ph.D., distinguished professor of medical genetics and of neurology; Howard Edenberg, Ph.D., professor of biochemistry and molecular biology and of medical and molecular genetics; Tatiana Foroud, Ph.D., assistant professor of medicine and molecular genetics; Carrie Smiley, R.N., study coordinator; and research interviewers Polly Larson, R.N., Vanessa Patrick, R.N., and Joseph
Smedley, Ph.D. There are also collaborating investigators at Wayne State University and the University of Louisville.

Other institutions who received funding from this grant are the University of Utah, the University of California - San Diego, the University of Pennsylvania, the University of Iowa, the University of Chicago, Washington University, Johns Hopkins University and Rush-Presbyterian Hospital.

(Note: The IU team of researchers is seeking siblings who have a family history of bipolar disorder to participate in the study. Individuals with questions or those wanting to enroll in the study may call 317-274-0173.)

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INDIANAPOLIS - Harvard researcher Judah Folkman, M.D., who is considered the father of modern angiogenesis research, received the 1998 Steven C. Beering Award from the Indiana University School of Medicine during ceremonies Nov. 11.

The Beering Award is presented annually to an outstanding medical research scientist. The award was named in honor of Steven Beering, M.D., who served as dean of IUSM from 1974 to 1983. Dr. Beering currently is president of Purdue University.

Dr. Folkman has received national and international attention for his research into the effects of the proliferation of blood vessels during the development of some types of tumors. He was the first to observe the activity of angiogenesis - the development of blood vessels to support tumor growth. He also proposed the concept of naturally occurring angiogenic inhibitors. His research team later identified the first of these - angiostatic steroids - as well as two other kinds of inhibitors. Two of his discoveries are now in human trials, one to test angiogenesis inhibition in children with life-threatening hemangioma and one to test an angiogenic therapy for otherwise untreatable peptic ulcers.

Dr. Folkman is the Julia Dyckman Andrus Professor of Pediatric Surgery and professor of cell biology at Harvard Medical School.

He received his medical degree magna cum laude from Harvard Medical School and completed his internship and residency at the Massachusetts General Hospital in Boston. He served as surgeon-in-chief and chairman of surgery at Children's Hospital in Boston for 14 years, but stepped down from the position in 1981 to devote his full effort to angiogenesis research. He now serves as a senior associate in surgery and director of surgical research.

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Indiana University Medical School Honors Three Minority Students With Awards Of Excellence

November 23, 1998

Indiana University Medical School Honors Three Minority Students With Awards Of Excellence

INDIANAPOLIS--Three Indiana University School of Medicine students are the recipients of a George and Lula Rawls Award of Excellence.

The award is presented annually by Dr. George and Lula Rawls to three minority students for academic achievement. Awards are presented to one student each selected from the masters of science program in medical science (MSMS), the first-year medical class, and a second, third or fourth-year student with the best academic average.

Recipients of the awards are Davina Harkey for the outstanding achieve in the masters of science program, Monet Williams for outstanding achieve in her first year of medical school, and Marcus Thorne for overall outstanding academic achievement. Thorne, who attended Cathedral High School in Indianapolis, is a third-year student.

George Rawls, M.D., is a retired Indianapolis surgeon. Until his recent retirement, he was assistant dean and associate clinical professor of surgery at the IU School of Medicine.

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New Laboratories Will Benefit Research at IU School of Medicine

INDIANAPOLIS -- Medical science research is getting a boost at Indiana University school of Medicine because of a much-needed expansion and renovation of the school's largest research facility.

A 161,236 square-foot expansion to the John D. VanNuys Medical Science Building on the Indiana University Medical Center campus represents the first phase of the renovation project. The four-story addition, which includes laboratory and office space, will be dedicated at 3 p.m. on Friday, October 23.

August M.Watanabe, M.D., executive vice president for science and technology at Eli Lilly and Company, and professor of medicine and of pharmacology and toxicology at the IU School of Medicine, will deliver the keynote address at the dedication ceremony. Walter J. Daly, M.D., dean emeritus of the IU School of Medicine, will receive an honorary degree from the university.

Thirty-four faculty researchers from the School of Medicine's departments of biochemistry and molecular biology, pharmacology and toxicology, microbiology and immunology, physiology and biophysics, and anatomy will move into the addition. Laboratories and offices were designed to enhance the synergy among researchers and provide a more efficient working environment. The new facility will allow scientists who study how the human body functions and why disease occurs to advance their work because of the resources available in this new facility.

"The IU School of Medicine is one of the top public university research institutions," says Joe Christian, M.D., Ph.D., associate dean for basic sciences and the regional medical education centers, "and to maintain that designation, we must continue to provide the best facilities for our faculty researchers."

Medical and graduate students, who spend much of their time in the VanNuys Medical Science Building, also will benefit from the updated facilities. "Our faculty has a dual mission of contributing to the progress of basic science research while at the same time teaching our students to understand these advances," says Robert W. Holden, M.D, dean, IU School of Medicine. "The integration of research and education provides the foundation for excellence at the IU School of Medicine."

The VanNuys Medical Science Building was built in 1958 and an annex was added in 1969. Minimal renovation to the building has left it in need of major enhancements to update it to current scientific standards. With the expansion complete, the original building will now be remodeled in two phases.

Funding for the expansion was secured by the Indiana State Legislature. The Legislature granted a portion of the addition to the Indiana State Department of Health Laboratories, which will occupy the second floor.

BSA Design was the architect for the VanNuys expansion.
New Laboratories Will Benefit Research at IU School of Medicine

Editor’s Note: An architectural rendering of the John D. VanNuys Medical Science Building is available upon request in an electronic file or a paper print out format.
IU School of Medicine Establishes Nation's First Adolescent Sexually Transmitted Disease Center

INDIANAPOLIS -- The Indiana University School of Medicine is the recipient of a $7 million National Institutes of Health grant creating the nation's only sexually transmitted disease center focusing solely on adolescents.

Donald Orr, M.D., said the long term goals of the newly established Mid-America Adolescent Sexually Transmitted Disease Cooperative Research Center is to understand what adolescents and parents can do to increase protection and decrease risk for sexually transmitted infection in teens. Dr. Orr is the director of the Section of Adolescent Medicine at IU School of Medicine and principal investigator for the five-year study funded through the National Institute of Allergy and Infectious Disease, a division of the NIH.

Last year the National Institute of Medicine identified sexually transmitted diseases (STD) as a hidden epidemic. There were 14 million reported STD cases in the United States in 1995 and 3 million of those cases were in adolescents. Health care costs that year for STD treatment totaled $8 million. In the U.S., 65 percent of all reported STD cases occur in individuals between the ages of 15 and 24 years.

Dr. Orr, who is a pediatrician at James Whitcomb Riley Hospital for Children, began his research into sexually transmitted diseases in adolescents 15 years ago with funding provided by the Riley Memorial Association. The NIH grant, which moved the IU Department of Pediatrics into the top 15 pediatric departments nationwide for NIH funding, will allow Dr. Orr and his colleagues to expand their research efforts.

"Adolescents are targeted because they are at highest risk of any age group," said Dr. Orr. "That is a result of a combination of factors including biological, social and behavioral issues, including the fact that teens are becoming sexually active at an earlier age."

In Marion County, Indiana, which includes Indianapolis, the average age of first sexual intercourse for youths with STD infection is 13 years for males and 14 years for females. The neighborhoods in which youths live place some at higher risk for contagion, Dr. Orr explained.

"Adolescents who live in suburbs are proportionately at less risk for gonorrhea or HIV and more at risk for chlamydia and human papilloma virus, which can cause cervical cancer," he said. "Adolescents in the inner city are at higher risk for all STDs."

However, even within neighborhoods where adolescents are at risk, not all teens who are sexually active get sexually transmitted diseases. That is one of the primary issues to be examined by Dr. Orr and his colleagues. Two factors are believed to be involved: behavioral issues such as the use of condoms and partner selection, and biological factors related to the way the organisms infect the body and the body's
IU School of Medicine Establishes Nation's First Adolescent Sexually Transmitted Disease Center

natural barriers to infection.

Within the next few months, 600 girls between the ages of 14 and 16 and their mothers will be enrolled in the study. The teens, who may or may not be sexually active, will receive regular checkups and education on behavioral issues. The teens will be followed for a 27-month period to obtain behavioral and biological data to determine why some at-risk adolescents become infected and some do not. The mothers will not be involved in the clinical aspect of the study; they will receive the educational materials on the behavioral issues.

The study will focus on four sexually transmitted diseases: chlamydia, gonorrhea, trichomonas and human papillomavirus. Chlamydia and gonorrhea, along with some other sexually transmitted diseases, place individuals at greater risk for contracting HIV.

Involved in the study will be researchers from the IU School of Medicine, Northwestern University, Louisiana State University and the University of Iowa.

The IU School of Medicine also is home to the Midwest Sexually Transmitted Disease Cooperative Research Center, which focuses on research and treatment of adults with sexually transmitted diseases.

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IU School of Medicine Receives $6 Million Grant for Nationwide Study on the Genetics of Parkinson's Disease

INDIANAPOLIS -- The Indiana University School of Medicine has received a $6 million National Institutes of Health grant for the largest nationwide study ever conducted on the genetics of Parkinson's disease.

IU School of Medicine will serve as the coordinating site for the study which will be conducted at more than 40 medical centers and institutions in the U.S. and Canada. Nearly 50,000 patients will be screened by the Parkinson's Study Group, a nationwide network of neurologists specializing in Parkinson's Disease.

From the screenings, 400 pairs of siblings, both of whom are affected with Parkinson's disease, will be identified to participate in the genetic study. By studying siblings, researchers will be able to identify chromosomal regions that affected siblings consistently share at higher rates than expected by chance. These areas or "hot spots" will be examined further in order to identify the genes responsible for the development of Parkinson's disease.

P. Michael Conneally, Ph.D., IU distinguished professor of medical and molecular genetics and of neurology, is the principal investigator of this nationwide study. Other IU investigators are Eric Siemers, M.D., clinical associate professor of neurology, and Joanne M. Wojcieszek, M.D., clinical assistant professor of neurology, both of whom will recruit and evaluate Parkinson's disease patients from Indiana.

Tatiana Foroud, Ph.D., assistant professor of medical and molecular genetics and of psychiatry, will perform the data analyses. DNA screening will be conducted at Children's Hospital in Cincinnati. Investigators at Emory University will examine another form of DNA collected from patients.

Parkinson's Disease is a degenerative neurological disease whose cause is unknown. Symptoms of Parkinson's disease include slowness of body movements, tremor, stooped posture, muscular stiffness (rigidity), short shuffling steps and poor balance.

Various causes of Parkinson's disease are under investigation, including the effects of environmental toxins, head trauma and stroke. Existing studies suggest that a genetic predisposition in combination with other factors may be significant in the development of the disease. Of the approximately 1 million people in the U.S. with Parkinson's disease, about 15 percent report having a first-degree relative (parent, child, sibling) who also has the disease.

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IU School of Medicine Receives $6 Million Grant for Nationwide Study on the Genetics of Parkinson’s Disease

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Much of the research described below is done in the new John D. VanNuys Medical Sciences Building at the Indiana University School of Medicine. It will be dedicated October 23, 1998.

A better understanding of the pathways that govern how cell growth and death occurs in the lining of human blood vessels may lead to drug or gene therapies for a variety of diseases such as hypertension and asthma. Vascular smooth muscles surround blood vessels and control blood pressure. Damage to these muscle cells may stimulate them to grow in an uncontrolled fashion blocking blood flow or constricting an asthmatic's airways. According to a cellular physiologist at the Indiana University School of Medicine, Patricia Gallagher, Ph.D., increased knowledge of the system of checks and balances that prevents unwanted smooth muscle growth will bring us closer to new control of these life-threatening diseases.

Identifying the various genes underlying alcohol seeking behaviors and alcoholism is a major aspect of the work of Indiana University School of Medicine molecular biologist Howard Edenberg, Ph.D. Using high tech methodologies such as the DNA amplifying process Polymerase Chain Reaction (PCR) for genotyping, he is studying microsatellite polymorphisms (simple-sequence repeats) to identify regions of the human genome that contain genes that affect the risk for alcoholism. "No one gene will make you an alcoholic, but genes do influence how vulnerable a person is. Once we can identify these genes, we will better understand the disease of alcoholism, and be better able to design treatments," says Edenberg. His work also has relevance to other multi-gene disorders including heart disease, cancers, hypertension, and diabetes.

Blood cell development is a risky business. Stem cells, the mothers of all red blood cells, must proliferate enough to ensure their own survival, but differentiate enough to supply enough of the many kinds of blood cells needed for the body’s survival. But too much differentiation and the body does not have enough red blood cells. Both situations are fatal. Robert Hromas, MD, of the Indiana University School of Medicine, is identifying the proteins that control this process, especially those linked to myeloid leukemia. He has discovered six new proteins that slow or stop the growth of blood cells developing in the marrow. Two of these proteins, called Exodus -1 and Exodus - 2 also slow the growth of chronic myelogenous leukemia. "It is possible that the Exodus family of proteins can be used in the future as a treatment for chronic myelogenous leukemia," Dr. Hromas said.

Patients with kidney infection or disease are at greater risk for permanent impairment when treated for kidney stones with shock wave lithotripsy, according to Andrew Evan, Ph.D., a professor of anatomy at the Indiana University School of Medicine. Lithotripsy is used to break up kidney stones and upper ureteral stones. The treatment applies external pressure to break the stones into tiny fragments, but the shock waves now have been shown to impair blood flow to kidneys that are not healthy at the time of treatment. Many lithotripsy patients, particularly those over the age of 60, have kidney disease or infection when treated with this popular shock wave therapy.
A viral protein that prevents human white blood cells and other inflammatory cells from reaching the site of an infection has been identified by Kenneth H. Fife, M.D., Ph.D. and colleagues at the IU School of Medicine. This novel viral mechanism could result in a new method for treating auto-immune conditions such as asthma and rheumatoid arthritis by blocking inflammation. These are the first viral chemokine-like proteins shown to counteract the cell attracting activity of human chemokines.

There are many types of warts according to Dr. Darron Brown of the Indiana University School of Medicine. Warts on the hands and feet are caused by "cutaneous type" human papillomaviruses (HPV). There are approximately 45 known varieties of this type of HPV. Some of these lesions may become malignant in certain people, such as kidney transplant recipients, but most do not. Genital HPVs, of which there are approximately 35 identified types, cause a range of diseases including genital warts, cervical dysplasia, and cervical cancer.

Nearly 1 million cases of genital warts and 15,000 cases of cervical cancer are diagnosed each year in the United States. Both conditions are caused by the human papillomavirus. A previously uncharacterized genital HPV type has been isolated, cloned, and sequenced by Darron R. Brown, M.D. in his laboratory at the Indiana University School of Medicine. The recently identified type, known as HPV 83, was isolated from genital lesions removed from immunosuppressed patients. HPV 83 appears to cause changes in experimental infection suggestive of malignancy, and has been found in cancer of the cervix. The work was published in the September 15 issue of Virology. "Effective vaccines against HPV will require inclusion of many HP types, because antibodies against one type may not inactivate other types," said Brown. Therefore, identification and cloning of additional HPV types could facilitate this process. His laboratory is continuing work to characterize additional HPVs and to develop vaccines.

Why do some human papillomaviruses (HPV) cause benign warts while others cause life-threatening cancers? An Indiana University School of Medicine molecular biologist, Ann Roman, Ph.D., is trying to solve this mystery. To exist, the viruses must invade cells that have the potential to multiple and make what are normally quiet, inactive cells change into multiplying cells. How does this occur and what happens next? "We are studying viral proteins which function to subvert the checkpoints that an uninfected cell has so that it only grows when it is appropriate to do so," says Roman, "and the cellular proteins which attempt to keep the virus under control."

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INDIANAPOLIS -- Indiana University School of Medicine researchers have received a $4.15 million, five-year grant from the National Institutes of Health to continue their research into the long-term effects of shock wave lithotripsy in the treatment of kidney stones.

The NIH grant is a renewal of a project grant first awarded in 1994. Andrew P. Evan, Ph.D., professor of anatomy, is principal investigator of the study.

With the new funding, Dr. Evan and his colleagues will study the biological effects on tissue of shock waves on kidney tissue. They also will explore the physics of the shock waves to better understand how shock waves cause the damage.

“The main goal of the project is to understand how shock waves injure tissue and how they break up stones,” Dr. Evan said. “Once we understand the mechanisms of those two events, we can explore the possibilities for separating the effects so we can minimize the tissue injury while still efficiently breaking the stones.”

The researchers will create detection systems to monitor the effect of the shock waves as they travel through body fluid. The different pressures generated by the shock waves traveling through the body fluid create bubbles, which expand and collapse as the shock waves pass through the fluid. The collapse of those bubbles will be one focus of the research, giving the scientists clues to the causes of the tissue injury and destruction of the kidney stones.

High-tech listening devices will be developed to record the sound of the collapse of the bubbles and high-speed photography will record the image of the bubbles themselves. A separate device will be developed to record the light released when the bubbles collapse, creating which is referred to as sonoluminescence.

By compiling this data, the researchers hope to generate objectively determined criteria for the safe clinical use of shock wave lithotripsy.

In addition to researchers from IU, scientists from the California Institute of Technology, Boston University, University of Washington-Seattle, and Methodist Hospital of Clarian Health will participate in the study.

# # #
Indiana University · Methodist Family Practice Center Opens Its Doors to Patients

INDIANAPOLIS-Just over a year after ground was broken, the Indiana University · Methodist Family Practice Center is open for patients. The Center is the product of a successful partnership focused on family medicine.

The Indiana University · Methodist Family Practice Center is located directly across from the Methodist Hospital emergency entrance on 16th Street. The Center has 25,000 square feet, 30 examination rooms, 4 procedure rooms, 2 family counseling rooms, an onsite lab and an X-ray facility, and 2 patient education rooms.

The public is invited to an Open House and Tour on Saturday, October 10 from 8-11 a.m. Otis R. Bowen, M.D., is the honorary chairman of this and several other events for patients, staff and public. Dr. Bowen is the Lester D. Bibler professor emeritus of family medicine at IU, former governor of Indiana and former secretary of Health and Human Services.

"More and more people are coming Downtown to live and work, and we want to provide these people, as well as those who have lived in the area for many years, with a convenient location for family and personal care," said J. Christopher Shank, M.D., director of the Family Residency Program and clinical professor of family medicine at IU.

The Center is home to the IU Family Practice residency program. In 1997, the rich tradition of the Methodist Hospital Family Practice Residency Program blended with the strong academic resources of the IU School of Medicine's Department of Family Medicine to form a newly energized Family Practice residency program. The Center strengthens the program further by enhancing training opportunities for residents and medical students in this comprehensive care facility where care for all family members can be provided.

"Family physicians are involved with the patient’s family and serve as the patient's advocate in all health-related matters," says Deborah I. Allen, M.D., professor of family medicine and former chairman of the IU Department of Family Medicine. "This Center enhances our ability to attract more medical students to choosing Family Medicine as a career choice." Dr. Allen is now director of the IU Bowen Research Center which conducts research on improvements in the delivery of health care to under-served communities. Balancing medical education with patient-sensitive care, the Center offers a healing environment for the youngest infant to the oldest adult. The team of professionals includes faculty physicians, counselors, residents, nurses, a physician assistant, a clinical pharmacist, a dietician and a social worker. They are supported by modern technology and take pride in providing complete and compassionate care to their patients and their families.
The Center will provide a broader range of services than previously offered in family medical centers at the Methodist and IU campuses. These include a larger laboratory to provide quicker and more efficient testing, in-office X-ray equipment, and improved facilities for office procedures such as treadmill testing, minor surgery, obstetrical care and behavioral care.

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Tea Linked To Tumor Repression, Reduction Of Disease, Indiana University Researcher Says

INDIANAPOLIS-A popular beverage may do more than just quench your thirst, an Indiana University School of Medicine researcher reported Sept. 14 at the Second International Scientific Symposium on Tea and Human Health in Washington, D.C.

The beverage, tea, has beneficial effects on reducing the level of oxidative stress, especially in smokers, reported James Klaunig, Ph.D., director of the Division of Toxicology and a professor of pharmacology and toxicology.

"We looked at smokers and non-smokers and showed that tea consumption resulted in a decrease in oxidative damage in humans," he said. "Cancer, emphysema and heart disease might be related to oxidative stress. Tea may not cure it, but it may slow down the pathologic consequences. It appears to function as an antioxidant similar to vitamin E and vitamin C except the components in tea are more potent than in those vitamins."

Participants in this research included 50 Hoosiers between the ages of 25 and 55 and 240 Chinese soldiers. Dr. Klaunig has an appointment as a visiting professor at Beijing Medical University, allowing him to conduct research in one of the major tea drinking countries in the world. He said the Chinese soldiers were excellent test subjects because they share a common lifestyle and diet.

Dr. Klaunig began his tea research about seven years ago, looking at the beverage's effects as an antioxidant in in vitro tissue cell cultures. Later, his research moved to mice. The rodents were given drinking water with a 2 percent concentration of tea, similar to the amount present in beverages consumed by humans.

"We showed tea can prevent chemically induced liver and lung cancer in mice," he said.

Dr. Klaunig explained that tea mainly works in the tumor promotion stage when precancerous cells first begin to divide and grow.

"We have not looked at whether it prevents metastases, but we do know it prevents tumor cells from growing," he said.

Dr. Klaunig is a true believer in the benefits of tea - he sips it all day long, he says, after his initial cup of coffee.

Black, green or oolong tea, served hot or cold, all have the same beneficial effects, he says. The secret is in the quantity.
The more you drink, the better off you may be," he advises.

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IU Mini Medical School Set for October 13 - November 17, 1998

INDIANAPOLIS—Medical school without math, chemistry or icky cut up frog parts...

It’s medical school for everybody, regardless of age or academic background.

Indiana University School of Medicine's eleventh Mini Medical School series, scheduled every Tuesday evening from Oct. 13 through Nov. 17, will offer medical lectures to the general public on Viagra, minimally-invasive vascular surgery, prostate cancer, knifeless surgery for brain disorders, anti-angiogenesis and skin cancer.

Judah Folkman, M.D., the discoverer of the mechanism of angiogenesis, will be presenting a lecture on anti-angiogenesis on Nov. 10. Dr. Folkman, professor of pediatric surgery and cell biology at Harvard Medical School, is the 1998 IU School of Medicine Beering Award recipient and lecturer. Other presenters are top medical professors from the Indiana University School of Medicine.

Each two-hour session begins at 7 p.m., including a short break and time for questions after the lecture.

Topics for the series include:

- October 13.... Minimally-Invasive Vascular Surgery
  Stephen Lalka, M.D. and Matthew Johnson, M.D.

- October 20.... Midlife Sex in the Wake of Viagra
  John Mulcahy, M.D. and Diane Brashear, Ph.D.

- October 27.... Controversies About Prostate Cancer
  Michael Koch, M.D.

- November 3.... Knifeless Surgery for Brain Disorders
  Thomas Witt, M.D. and Robert Timmerman, M.D.

- November 10.... Angiogenesis: A New Cancer Foe?
  Judah Folkman, M.D.

- November 17.... Skin Therapy: Myth vs. Reality
  Antoinette Hood, M.D.

Classes will be held in the University Place Conference Center auditorium on the IUPUI campus. The cost to attend all six sessions is $35, which includes refreshments and a course certificate. **For more information, or to enroll, please call (317) 274-3426.**
Send to: Indiana University School of Medicine
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August 31, 1998

First Indiana University Faculty Named to Otis R. Bowen Professorship

INDIANAPOLIS, IN--Deborah I. Allen, M.D., has been named the Otis R. Bowen Professor of Family Medicine at the Indiana University School of Medicine. Dr. Allen is the first to hold this chair created in recognition of Dr. Bowen's contributions to family medicine at IU and throughout the country. Dr. Allen also will become director of the Bowen Research Center at IU; the center is a collaborative program between the IU Schools of Medicine and Public and Environment Affairs.

To undertake her new responsibilities, Dr. Allen will step down as chair of the Department of Family Medicine, effective August 31, 1998. During her nine-year tenure as chairman, she has established a curriculum change designed to increase medical students' exposure to family medicine. She implemented a clerkship in family medicine for third-year medical students that took them into primary care practices throughout the state and developed a thriving residency program through consolidation with Methodist Hospital's residency program. Since the curriculum changes, the number of IU School of Medicine graduates choosing to enter family medicine residencies has increased from 10.5 percent in 1992 to just over 21 percent this March (1998).

Dr. Allen was instrumental in initiating a multi-million dollar campaign to establish the Otis R. Bowen Research Center at the IU in 1992. It has focused its research goals on improving the delivery of health care to under served communities and the impact of changes in reimbursement on quality of health care. These goals were in keeping with the initiatives spearheaded by Dr. Bowen during his tenure as secretary of the U. S. Department of Health and Human Services. The Bowen Center is the first endowed research center in a family medicine department in the country. Its faculty has focused on research in preventive health, rural health and delivery of health care services during the past decade. As the new director, her goals are to recruit new research faculty to develop a statewide practice-based research network and to develop the center's research infrastructure. She also plans to develop a stronger research and mentoring program to support the American United Life/Bowen Research Center Scholars.

Dr. Allen was elected the first women president of the Indiana Academy of Family Physicians in 1986 and was recognized by the American Academy of Family Physicians in 1992 with the Thomas W. Johnson Award in honor of her outstanding contributions to family practice education. She is a graduate of the IU School of Medicine and of Purdue University. She completed her family medicine residency training at Methodist Hospital of Indiana which is now a partner in Clarian Health.

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Two IU School of Medicine Faculty Awarded Endowed Professorships

INDIANAPOLIS—Two Indiana University School of Medicine faculty members were awarded named professorships at the Aug. 21 meeting of the Indiana University Board of Trustees. Mary Dinauer, M.D., Ph.D., was named the Nora Letzter Professor of Pediatrics and Ora Pescovitz, M.D., was named the Edwin Letzter Professor of Pediatrics.

The professorships were established in memoriam in 1997 by the Riley Memorial Association. Nora and Edwin Letzter, who founded the Indianapolis Machinery Co. in 1926, were supportive of several service and charitable organizations, including the RMA.

Dr. Dinauer is a specialist in blood disorders and is one of the world's leading experts on chronic granulomatous disease (CGD). CGD is characterized by a genetic defect that makes the body's white blood cells have difficulty in killing bacteria and fungi that other people's systems fight without difficulty. Dr. Dinauer is studying gene therapy as a means to cure individuals with CGD and has had preliminary success in non-human laboratory trials.

Dr. Dinauer is an investigator at Indiana University's Herman B Wells Center for Pediatric Research and is a professor of pediatrics and of medical and molecular genetics. She is a member of the Midwest Society of Pediatric Research, the American Society of Hematology and is a councilor of the American Society of Clinical Investigators. She earned the Excellence in Pediatrics Research Award from the American Academy of Pediatrics in 1995. She is a graduate of the University of Chicago Pritzker School of Medicine and completed her residency at the University of California, San Francisco and her fellowship at Children's Hospital in Boston.

Dr. Pescovitz is director of the Division of Pediatric Endocrinology/Diabetology and is a professor of pediatrics and of physiology and biophysics at the Indiana University School of Medicine. She is a nationally recognized pediatric endocrinologist and recently discovered a novel hormone that may be involved in both reproduction and metabolism. She specializes in the treatment of precocious puberty, a condition in which children begin puberty at a young age because of hormonal imbalances. She also treats children with growth and other metabolic disorders.

Dr. Pescovitz is vice president of the Society for Pediatric Research, and a member of the American Academy of Pediatrics, the Endocrine Society, and the Lawson Wilkins Pediatric Endocrine Society. She was awarded a Research Career Development Award from the National Institutes of Health, 1991-96. Dr. Pescovitz is a graduate of the Northwestern University Medical School and completed her residency at the University of Minnesota and Children's Hospital National Medical Center in Washington, D.C. She completed a fellowship in endocrinology at the National Institutes of Health. An endowed named professorship is the hallmark of success for an outstanding faculty member who sets the standards in his or her discipline. It is
Two IU School of Medicine Faculty Awarded Endowed Professorships

one of the highest honors a university can bestow on a member of its faculty.

Send to: IUSM Office of Public & Media Relations

Contact: Ellen Gullett
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August 3, 1998

**New Chief Executive Officer and Medical Director Named for Wishard Health Services**

INDIANAPOLIS -- Randall L. Braddom, M.D., M.S., has been named chief executive officer and medical director of Wishard Health Services and associate dean of the Indiana University School of Medicine by Robert W. Holden, M.D., dean of the IU School of Medicine. The appointment will be finalized by the boards of trustees of Marion County Health and Hospital and Indiana University at their August 19 and 21 (respectively) meetings and will be effective Oct. 1, 1998.

Dr. Braddom will take the positions held by John F. Williams Jr., M.D., professor of medicine, since 1990. Last fall, Dr. Williams announced he would retire September 30, 1998.

Dr. Braddom founded the Department of Physical Medicine and Rehabilitation at IUSM in 1991 and has served as department chairman since that time. He will continue serving as a professor in that department. He also served as medical director of Hook Rehabilitation Center of Community Hospitals, Indianapolis, from 1991 to 1997.

Before joining IU, Dr. Braddom was chairman of the Department of Rehabilitation Medicine at Albert Einstein Medical Center, vice president of medical affairs at Moss Rehab Hospital and associate professor and deputy chairman of the Department of Rehabilitation Medicine at Temple University School of Medicine, all in Philadelphia.

Dr. Braddom's professional achievements have been recognized by the American Academy of Physical Medicine and Rehabilitation which awarded him the Distinguished Clinician Award in 1997 and the American Kinesiotherapy Association which awarded him the John Eisele Davis Memorial Award also in 1997.

Dr. Braddom and his wife Dr. Carolyn Lentz Braddom live in Indianapolis. They have three children.

# # #

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Health & Hospital/Wishard
New Chief Executive Officer and Medical Director Named for Wishard Health Services
INDIANAPOLIS--Top U.S. hospital programs include Indiana University Medical Center (IUMC) according to U.S. News & World Report's "1998 America's Best Hospitals Guide."

IUMC maintained its inclusion in the guide in eight clinical programs: cancer, cardiology, gastroenterology, gynecology, neurology, otolaryngology, rheumatology and urology. IUMC increased its visibility nationally with inclusion in an additional clinical program, endocrinology.

U.S. News & World Report rankings refer to IUMC. In this reference, IUMC includes the faculty of the IU School of Medicine who practice on Clarian Health's IU/Riley campus, and other program affiliates.

"On behalf of myself, the board of directors and most importantly, our patients, I want to extend congratulations to all staff involved," said Bill Loveday, president and CEO of Clarian Health.

"It is truly an honor for the IU School of Medicine's faculty and associated hospitals to gain this national recognition. I wish to extend my sincerest appreciation to all of the caregivers and support staff who made this possible," said Robert W. Holden, Dean, IU School of Medicine.

This is the ninth annual ranking of America's hospitals by U.S. News. The guide assesses 16 specialties and ranks 42 hospitals in each specialty. Of the 6,400 U.S. hospitals, 1,985 hospitals met the initial eligibility test in order to be included in the survey. Only 132 hospitals scored high enough to be ranked this year.

IUMC's rankings in the various specialties are:

- Cancer, 14th
- Cardiology, 24th
- Endocrinology, 39th
- Gastroenterology, 16th
- Gynecology, 22nd
- Neurology, 35th
- Otolaryngology, 30th
- Rheumatology, 20th
- Urology, 20th

Rankings are developed by surveys of a geographical cross-section of 150 board-certified specialists in each of 16 specialties -- 2,400 in all. The doctors are randomly selected from a 650,000-person database maintained by the American Medical...
Association and are asked to name the five hospitals in their specialty they consider the best, regardless of location or expense. Results are a compilation of survey results from 1996, 1997 and 1998. Hospital rankings are also based on criteria related to mortality rates and advanced technology capabilities.

The guide will appear in the July 27 issue, which hits the newsstands Monday, July 20.

The complete rankings of "America's Best Hospitals" will be available online Friday at www.usnews.com. U.S. News Online offers a searchable database of the 1998 hospital rankings that can be sorted by region, specialty, or metro area.
Exposure To Toxic Substances Does Not Appear To Cause Symptoms Attributed To Gulf War Syndrome

INDIANAPOLIS, IN-- A study in a recent issue of the Journal of Occupational and Environmental Medicine finds no clear evidence of an association between exposure to toxic substances and Gulf War illnesses.

In a study of 18,495 men and women who served on active duty during the Gulf War, Kurt Kroenke, M.D., professor of medicine at the Indiana University School of Medicine and senior research scientist at the Regenstrief Institute for Health Care, and colleagues found that exposure to toxic substances did not appear to cause the symptoms, including joint pain, fatigue, rashes and sleep disorders, that have been labeled by some as Gulf War illnesses.

The veterans were asked to report what they perceived as possible toxic exposures during the conflict. Among those mentioned most often were exposures to fuel, passive cigarette smoke, an antidote to battlefield chemicals, fumes from tent heaters, oil fire smoke, personal pesticide use, anthrax immunizations, botulism immunization and medication to prevent malaria.

The researchers found no apparent association between the specific exposures and the individual symptoms the veterans reported to doctors who examined them through the Department of Defense's Comprehensive Clinical Evaluation Program. For example, despite their form of exposure, half of the veterans surveyed reported symptoms such as joint pain and fatigue. One-third of the study subjects reported sleep problems and more than a quarter reported skin problems, regardless of type of toxic exposure.

"Other studies have shown that health complaints or symptoms increase after stressful experiences such as an earthquake or war. Survivors are likely to suffer sleep disturbance or depression. It is possible that the veterans we studied are responding to stress rather than exposure to specific toxins," said Dr. Kroenke.

Many veterans did not develop problems until long after the end of the war. This fact also led the researchers to conclude that it is unlikely there is a link between exposures during the conflict and the long list of symptoms collectively referred to by some as Gulf War Syndrome.

Symptom onset was delayed in a majority of the veterans until they returned to the U.S. The study found that more than 40 percent of the veterans did not have symptoms until more than a year after they left the Gulf.

According to the study, an "unexpected rise in symptom onset during the third year postwar or later compared to the second postwar year may represent either a true
Exposure To Toxic Substances Does Not Appear To Cause Symptoms Attributed To Gulf War Syndrome

delayed peak in symptom latency, recall bias, introduction of VA disability compensation programs for Gulf War veterans with undiagnosed illnesses, or heightened awareness of symptoms related to increasing media attention."

"This latency also argues against any specific toxin causing the symptoms. As exposures to toxins during the conflict took place over a short time and were not chronic, there is no clear explanation for symptoms occurring years after the end of the war," said Kroenke.

Other members of the study team were Patricia Koslowe, Ph.D., of the Comprehensive Clinical Evaluation Program, Office of the Assistant Secretary of Defense for Health Affairs, and Michael Roy, M.D., M.P.H., of the Uniformed Services University of the Health Sciences and Walter Reed Army Medical Center.

News Release Archives | Media Relations | IU School of Medicine
Landmark Genital Herpes Trial Underway at Indiana University School of Medicine

INDIANAPOLIS--Indiana University School of Medicine is participating in a first-of-its-kind worldwide clinical trial to determine if a single 10-day treatment regimen with an antiviral medication within 72 hours following the first genital herpes outbreak can prevent any future outbreaks and eliminate the need for lifelong medication.

This trial was prompted by several compelling preclinical studies which suggest that the currently available antiviral famciclovir (Famvir) may alter the natural course of the genital herpes virus. The studies showed that treating an initial herpes infection with the medication within the first few days eliminated most of the virus and markedly reduced or eliminated viral reactivation.

Genital herpes is a sexually transmitted disease which affects one out of five Americans over the age of 12, and there is currently no cure.

"We are very excited about this study and what it could potentially mean for people who think they have just been exposed to the genital herpes virus for the very first time," said lead investigator Kenneth Fifte, M.D., professor of medicine, microbiology, immunology and pathology at IU School of Medicine and researcher at the Bellflower Clinic, Wishard Hospital. "If we can replicate these results in our human study, then the message to people will be very clear -- if you think you may be having your first genital herpes outbreak, go see your physician immediately. If you do in fact have herpes, then a single 10-day treatment with Famvir may prevent you from having outbreaks ever again," said Dr. Fife.

This comparative, double-blind study is taking place at 67 sites worldwide (33 in the U.S.) and involves 400 patients. Of these 400 patients, 304 are women and 96 are men. Researchers, including Dr. Fife and his colleagues at IU School of Medicine, are looking to see if treating a patient's first genital herpes outbreak with famciclovir will prevent recurrences forever. Enrolled patients who are experiencing their first outbreak are treated immediately with either famciclovir or valacyclovir, another antiviral agent, for 10 days and are then asked to return to the clinic to be evaluated once a month for 10 months.

According to Centers for Disease Control and Prevention 1997 statistics, an estimated 45 million American adults have genital herpes - a contagious and recurrent viral infection caused by the herpes simplex virus (HSV). Half a million Americans are infected with genital herpes each year. In addition, nearly 90 percent of patients will experience recurrences following their first outbreak.

"The first step in stopping the spread of this disease is to education people about the symptoms of genital herpes, since so many people, when they are having a
herpes outbreak, don't know that what they are experiencing is in fact genital herpes," said Dr. Fife. "If we can prove that an antiviral medication can actually reduce the amount of herpes virus in the body when taken as a single 10-day treatment during the very first outbreak, then the next step would be to emphasize the importance of seeking treatment immediately."

The Indiana University School of Medicine Section of Infectious Diseases has focused on research of gonorrhea, chlamydial infections, human papillomavirus and genital herpes since it was first funded in 1985 by the National Institutes of Health.

The Bellflower Clinic at Wishard Hospital provides testing, diagnosis, treatment and counseling for patients with sexually transmitted diseases, including genital herpes. The Bellflower Clinic is the only clinic dedicated to the treatment of sexually transmitted diseases in Indianapolis.
July 7, 1998

Indiana University Studies Drug Which May Reduce Spread of Genital Herpes

INDIANAPOLIS--An international study, with a clinical trial site at Indiana University School of Medicine, is evaluating whether an anti-herpetic drug is safe and effective in reducing the risk of transmission of genital herpes. It is estimated that 500,000 to 1 million Americans contract genital herpes each year.

The study was announced last fall following the publication of results from a Centers for Disease Control and Prevention (CDC) study in the New England Journal of Medicine which concluded that the prevalence of HSV-2 infection, the most common cause of genital herpes, has increased by 30 percent since the late 1970s and is now detectable in nearly one in five persons 12 years of age or older nationwide.

Signs and symptoms of genital herpes outbreaks may include swelling, pain, itching and burning in the genital area, followed by redness and blisters or sores that eventually crust over and heal. Fever, chills, muscle aches, tiredness and headaches can also occur.

Although genital herpes is not a life-threatening disease, some experts believe it to be a contributing factor in the spread of other potentially serious sexually transmitted diseases and may even facilitate the transmission of the human immunodeficiency virus (HIV).

Kenneth H. Fife, M.D., Ph.D., professor of medicine, of microbiology and immunology, and of pathology and laboratory medicine at the IU School of Medicine, along with other researchers, believes the dramatic increase in the prevalence of genital herpes is largely due to misperceptions about how the disease is transmitted.

³Unfortunately people don¹t realize that genital herpes can be transmitted even when there are no visible signs of disease, such as blisters or lesions,² said Dr. Fife, who is the principal investigator of the ongoing trial at IU. ³This misunderstanding about the transmission of genital herpes is one of the main reasons for the increasing numbers of people infected with HSV-2.²

The placebo-controlled study will enroll a total of 1,500 couples with one partner who has tested positive for genital herpes and one who has tested negative. The partner with genital herpes in each couple will be randomized to receive a once-daily treatment with 500 mg of Valtrexâ (valacyclovir HCl) or a placebo.

Valtrex is currently approved for use for both treatment and suppression of outbreaks of genital herpes. It is believed that the mechanism of action of Valtrex
Indiana University Studies Drug Which May Reduce Spread of Genital Herpes

has an impact on the replication of the virus and when used as suppressive therapy may have an impact on the transmission of the disease. To date, there are no clinical data from research studies establishing that anti-herpetic drugs can prevent transmission of the virus that causes genital herpes.

The study is sponsored by Glaxo Wellcome Inc. The company developed and markets Valtrex.

Patients are currently being recruited for the clinical trial. For additional information, call 1-888-842-4721 or the IU School of Medicine at 317-278-2945.
Indiana University School of Medicine is First in State to Test New Procedure for Cardiac Patients

INDIANAPOLIS--Indiana University School of Medicine cardiologists and radiation specialists will test an experimental treatment that could reduce the need for repeat balloon angioplasty and bypass procedures.

The new procedure, which is the first FDA-approved clinical trial of its kind, involves irradiating the interior of a cardiac artery immediately after physicians perform balloon angioplasty on the patient. IU is the only site in Indiana and one of only 23 in the nation testing the intracoronary radiation therapy procedure.

Angioplasty is performed in patients with coronary artery disease, which is the leading cause of death in the U.S. The disease affects more than 13 million people in the nation and, this year alone, an estimated 1.8 million patients will undergo procedures such as bypass surgery or balloon angioplasty to re-open their arteries.

In 30 percent to 50 percent of all patients treated with balloon angioplasty, the artery narrows again. This event is called restenosis.

"When a patient undergoes balloon angioplasty, the treatment may injure the artery walls causing scar tissue to grow as part of the healing process," explained Vincent Pompili, M.D., assistant professor of medicine, an investigator at the Krannert Institute of Cardiology and the principal investigator of the trial. "The scar tissue causes a re-narrowing or restenosis of the artery and a second balloon angioplasty may be needed."

Until now, the only treatment available to help prevent restenosis was placement of a stent, which is an expandable metal device that is permanently implanted to support the artery wall. However, even with stents, restenosis can occur in up to 20 percent of the patients, often leading to yet another angioplasty procedure. About 900,000 coronary interventions are performed each year in the United States and about 180,000 of those are repeat angioplasty procedures.

With the intracoronary radiation therapy procedure, physicians use a catheter to insert a low dose of radiation inside the coronary artery at the site where the stenosis has been treated with angioplasty. Beta radiation is used to inhibit cell growth inside the artery.

The procedure takes less than 10 minutes and patients are exposed to less than 1 percent of the radiation used in a normal x-ray, said Robert Timmerman, M.D.,
assistant professor of radiation oncology and co-investigator on the trial. In earlier studies, intracoronary radiation reduced restenosis by 70 percent.

"We have been aware for a long time that radiation may inhibit the formation of certain types of scar tissue growth," said Dr. Timmerman. "Only recently, however, has it been technically feasible to effectively deliver radiation within a small artery. These new devices allow fairly high doses of beta or electron radiation to be delivered to the artery wall with very little penetration beyond."

A total of 1,100 patients will be enrolled in the multi-center trial. This is a Phase III placebo-controlled trial sponsored by Novoste Corp., makers of the Beta-Cath system which delivers the dose of beta radiation inside the artery.

For additional information or an appointment, call the Krannert Institute of Cardiology at 317-630-7261.
Police Office Uses Portable Defibrillator To Save Life; Second "Save" For IU Study

INDIANAPOLIS—The second "save" of a cardiac arrest victim using a portable automated external defibrillator (AED) has been recorded according to researchers at the Krannert Institute of Cardiology at Indiana University School of Medicine. The save occurred in Plymouth, Ind., by a Marshall County Sheriff's Department officer on May 28. The victim is expected to be released from St. Joseph Hospital in South Bend sometime next week.

IU School of Medicine began a study last year known as PARADE (Police as Responder Automated Defibrillation Evaluation) to evaluate the effect of training and equipping police officers in designated counties of Indiana with AEDs. An AED automatically analyzes the heart rhythm, chooses the right amount of electricity to deliver and coaches the operator with audio and visual prompts.

Cecil Robert "Bob" Snider, an appliance repairman, went into cardiac arrest at approximately 11 a.m., while working at a client's home. The client called 911 and began CPR. Within seven minutes, the Marshall County Police Department arrived at the residence and the first shock was delivered by officer Ward Byers within the next 60 seconds. EMS personnel arrived immediately after the police department and delivered the second shock using the police officer's AED. In addition, the EMS personnel administered four more shocks with their own defibrillator and also provided medication in order to stabilize the patient.

Snider, who has a history of atrial fibrillation, was transported to the St. Joseph Hospital in Marshall County emergency department. He was admitted to the Cardiac Care Unit at approximately 2 p.m where he remained unresponsive until Sunday, May 31 at about 9 p.m. By last Monday, Snider was sitting up and speaking although he was somewhat disoriented and appeared to have suffered some short term memory loss. He was later transported to St. Joseph Hospital of South Bend.

The Marshall County Police Department was equipped with AEDs through PARADE in January. This case represents the first successful resuscitation by the Marshall County Police Department. Upon recovery and hospital discharge, Snider will be the second person resuscitated by a police officer during the PARADE study, increasing the survival rate of the study to 25 percent. The first "save" occurred in Delaware County on January 31. The patient, an off-duty Muncie police officer, was resuscitated by a Delaware County police officer and released from Ball Memorial Hospital on February 7.

The four counties currently enrolled in the PARADE study to date are Hamilton, Shelby, Delaware and Marshall counties, with Howard County joining the program on June 10. More than a dozen other counties have expressed interest in participating in the study.
Sudden cardiac arrest is the single leading cause of death in the U.S., striking about 1,000 Americans each day. Whether victims survive sudden death depends on how quickly they can be defibrillated. The shorter the time from collapse to defibrillation, the better the chances of survival. If defibrillation is delayed for more than 10 minutes, survival rates drop to virtually zero.

The rationale for the PARADE study is that police officers often can be on the scene more rapidly than traditional EMS responders. Preliminary data from the PARADE trial suggests that police officers arrive at the scene an average of four minutes quicker than EMS. It is believed that the addition of police AED capabilities may help improve the rate of survival from cardiac arrest in Indiana, which is close to the national average of less than five percent. In other parts of the country with similar programs, survival rates of 30 to 45 percent have been achieved.

The PARADE trial is supported by the Asmund S. Laerdal Foundation for Acute Medicine, the Medtronic Foundation Heart/Rescue Program, Guidant Corporation, Laerdal Medical Corporation, Physio-Control Corporation, Heartstream and SurvivaLink Corporation. For more information about the PARADE study or how to participate, contact Mary Newman, research coordinator at 317-630-7145.

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News Release Archives | Media Relations | IU School of Medicine
June 2, 1998

IU SCHOOL OF MEDICINE DEPARTMENT OF FAMILY MEDICINE RECEIVES BRONZE ACHIEVEMENT AWARD

INDIANAPOLIS—Indiana University School of Medicine was one of 46 medical schools honored by the American Academy of Family Physicians for their efforts in making family practice a top career choice for graduating medical students.

The seventh annual “Family Practice Percentage Awards” were presented during the Society of Teachers of Family Medicine Conference in Chicago in May.

Deborah Allen, M.D., chairman of the Department of Family Medicine, accepted a Bronze Achievement Award on behalf of the school.

IU School of Medicine was recognized for having 22.8 percent of its graduates enter family practice residency programs over the past three years.

Send to Indiana University School of Medicine
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INDIANAPOLIS—Researchers have long known that the tau protein plays a role in various dementias, including Alzheimer’s disease. But now a select group of scientists have isolated a mutation in the gene for tau which is the cause of a type of dementia.

Researchers at Indiana University School of Medicine and the Medical Research Council of Great Britain will publish their findings in an upcoming issue of the Proceedings of the National Academy of Sciences. Their research also will be featured in an article in the June 5 issue of the magazine Science, the publication of the American Association for the Advancement of Science.

The findings have major importance for frontotemporal dementias and may also have implications for Alzheimer’s disease. No one knows for sure, but it is believed that frontotemporal dementias account for 4 percent to 10 percent of all dementias.

Many Alzheimer’s disease researchers had all but abandoned the idea that the tau protein played an integral role in some dementias, looking instead at a protein called Beta amyloid. Genetic research in the labs of Bernardino Ghetti, M.D., of Indiana University, and Maria Grazia Spillantini, Ph.D., of the Medical Research Council in Cambridge, England, continued into the causes of dementia. Drs. Ghetti and Spillantini, along with their colleagues Martin Farlow, M.D., and Jill R. Murrell, Ph.D., of Indiana University, and Michael Goedert, M.D., Ph.D., and Aaron Klug, Ph.D., of the Medical Research Council, then isolated the tau anomaly.

In 1993, Dr. Farlow first became acquainted with the family whose disease led to the discovery of the tau anomaly. The researchers studied 11 affected family members in three generations of the family. This family’s disease is unique because it is exclusively tau related, unlike other dementias which could have multiple causes.

In 1997, the Indiana University and Medical Research Council scientists published their findings which identified the family’s disease as a hereditary dementia, naming it familial multiple system tauopathy with presenile dementia (MSTD). Continued research with the members of the family led to the identification of the anomaly in the tau gene and the isolation of its mutations, the findings which are now being released.

“Several varieties or forms of the tau protein are normally found in the brain. What we discovered is a difference in the amounts of some forms of the tau protein produced in patients with MSTD,” said Dr. Ghetti. “Although we believe the actual composition of the protein is the same in affected and non-affected individuals, the mutation in the tau gene causes an overabundance of some forms of the tau protein.”

Tau protein is a key part of the structure of the axons, which link cells in the brain. The axons, in effect, act like telephone lines connecting various phones or, in this case, cells. In the tauopathy patient, tau protein no longer supports the axons, in effect destabilizing the line so it can no longer carry signals. When the system is no longer
adequately linked, phone service is disrupted or rather, brain function is diminished. This may cause various symptoms in patients such as imbalance, memory loss, verbal dysfunction, depression, obsessive or bizarre behavior, and ultimately dementia.

Another breakdown in the system is caused by an abnormal amount of the tau protein concentrating inside the cells, which causes cell death. The abnormal deposits of the tau protein in the cells form what researchers call tau filaments.

It is possible that the mechanisms that cause MSTD and the other related frontotemporal dementias may also contribute to the development of Alzheimer’s disease. Researchers say that by isolating the tau gene anomaly, scientists are one step closer to developing drugs which can act on the contributing factors of frontotemporal dementias.

Funding for the research was provided through grants from the National Institute on Aging and the National Institute of Neurological Diseases and Stroke, both part of the National Institutes of Health, along with the United Kingdom Medical Research Council, the Royal Society of London and the Metropolitan Life Foundation.

# # #

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INDIANAPOLIS—Patients with kidney infection or disease are at greater risk for permanent impairment when treated for kidney stones with shock wave lithotripsy, researchers at Indiana University School of Medicine reported Tuesday, June 2, at the 93rd Annual Meeting of the American Urological Association at San Diego May 30-June 4.

Andrew Evan, Ph.D., professor of anatomy at IU School of Medicine, said the purpose of the study was to determine if risk factors, such as kidney disease, could influence the long-term safety and effectiveness of shock wave lithotripsy.

Lithotripsy is used to break up kidney stones and upper ureteral stones. The shock waves apply external pressure to break the stones into tiny fragments so they can be excreted in the urine.

In an effort to mimic the condition of kidneys in many older patients, pyelonephritis, an inflammation of the kidneys, was induced in the kidneys of young pigs. The diseased kidneys were then treated with 2,000 shock waves, which is at the low end of clinical dosage. Dr. Evan said the severity of the changes caused by the shock waves were similar to the changes found in healthy kidneys exposed to much higher numbers of shock waves.

In a companion study, IU School of Medicine researchers subjected a portion of one kidney in animal models to 8,000 shock waves, the very high end of clinical dosage. The result was large and sustained reductions of blood flow and function in both kidneys. Blood flow is critical to healthy kidney function.

“The results of the experiment in diseased kidneys were similar to those in normal kidneys subjected to high dose shock wave lithotripsy,” Dr. Evan said.

“Changes in renal blood flow and urine production lasted much longer than the amount of time usually seen in animals with healthy kidneys after treatment with 2,000 shock waves,” he said.

Many patients, particularly those over the age of 60, have some degree of kidney disease or infection when treated with lithotripsy for kidney stones. An earlier study from Austria showed that 40 percent of lithotripsy patients over the age of 60 have impaired blood flow and function more than 2 years after the treatment.

“There is an apparent added risk factor for these patients and an alternative therapy might be considered by their physician,” said Dr. Evan.

# # #
Shock Wave Lithotripsy Procedures Greater Risk For Patients With Kidney Disease

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High Dose Lithotripsy Impairs Kidney Function, Researchers Say

INDIANAPOLIS—The length and severity of kidney function impairment caused by shock wave lithotripsy may be directly linked to the number of shock waves administered for the treatment of kidney stones, researchers at Indiana University School of Medicine reported Sunday, May 31, at the 93rd Annual Meeting of the American Urological Association at San Diego May 30- June 4.

Lynn R. Willis, Ph.D., professor of pharmacology and of medicine at IU School of Medicine, and a team of researchers subjected anesthetized pigs to doses of shock waves to test the safety of exposure. One kidney of each pig received typical lithotripsy treatment in the amount of 2,000 shock waves or an excessive treatment of 8,000 shock waves.

Lithotripsy is used to break up kidney stones and upper ureteral stones in humans. The shock waves break the stones into tiny fragments so they can be excreted in the urine.

Researchers were interested in determining if the severity of changes in kidney function after lithotripsy could be correlated to different doses of shock waves. There are no prior studies testing how the kidney responds to various levels of shock waves in animal models or human patients.

By measuring changes in kidney blood flow and the animals’ ability to make urine, researchers found that 8,000 shock waves applied to one kidney caused similar large and sustained reductions of blood flow and function in both kidneys.

“The data suggest that shock wave lithotripsy releases a substance that reduces blood flow in both kidneys, despite the fact that only one kidney was subjected to the shock waves,” said Dr. Willis. “Further study is warranted to determine why both kidneys are affected.”

Blood flow is critical to healthy kidney function. The study showed that, following high dose shock wave treatment, blood flow to both kidneys was reduced for the four-hour length of the study.

“Blood flow influences filtration, which is the basic function by which kidneys eliminate wastes,” Dr. Willis said. “After 1½ hours of severely reduced blood flow, kidney cells may begin to die. During the four-hour course of this study, there was at least a 50 percent reduction in blood flow and at least a 50 percent drop in urine formation in both kidneys.”

The animals were subjected to either 2,000 or 8,000 shock waves. The 2,000 shock wave level is a typical clinical dose, but higher amounts are administered if treatment indicates.
“All people normally lose kidney cells and function as we age, but because we normally have two kidneys and can manage with only one, age-related losses of kidney function usually pose no significant problems,” Dr. Willis said.

“However, if someone loses a significant number of kidney cells because of high-dose or repeated lithotripsy treatments, those losses in addition to the normal age-related losses of kidney cells may eventually impair the kidneys’ ability to control blood pressure or lead to kidney failure.”
Nerve-Sparing Surgery Preserves Reproductive Function In Testicular Cancer Patients, Analysis Shows

INDIANAPOLIS-- Does the end justify the means? That is the question researchers at the Indiana University School of Medicine weighed when they analyzed 12 years of records of testicular cancer patients who had nerve-sparing surgery. A report on their findings was presented Sunday, May 31, at the 93rd Annual Meeting of the American Urological Association at San Diego May 30- June 4.

Since the early 1980s, the standard therapy for treating advanced stage germ cell testicular cancer included chemotherapy and nerve-sparing surgery known as retroperitoneal lymph node dissection (RPLND).

The RPLND surgical procedure was refined at IU School of Medicine and it, in combination with the chemotherapy regimen developed at IU, has greatly increased testicular cancer patients' survival rates. However, the surgical nerve-sparing procedure is more complicated than other surgical methods, said Richard S. Foster, M.D., associate professor of urology at the IU School of Medicine and the presenter of the report.

Historically, when testicular cancer surgery and lymph node dissection were performed there were tiny nerves removed, said Dr. Foster. Those nerves control a man’s ability to secrete semen and expel semen. Physicians adopted the nerve-sparing technique because they believed more men would be able to live a full life, including fatherhood.

Testicular cancer frequently strikes men in their teens and 20s, and before the nerve-sparing surgery technique was refined, all were left incapable of fathering children.

Dr. Foster and his fellow IU researchers reviewed the long-term fertility preserving potential of the procedure.

Between 1984 and 1996, nerve-sparing RPLND was performed at IU on 483 stage I testicular cancer patients. Of those, 401 were available for follow-up analysis.

All of the patients surveyed were able to achieve ejaculation.

The analysis also determined:

* 124 patients, who had cancer of the right testicle, had the nerve-sparing procedure performed on the right side. Of those, 50 patients had attempted to father children and 40 of those patients (80 percent) had been successful.

* 185 patients had the procedure performed on the left side. Of those, 48 patients had attempted to father children and 42 of those patients (88 percent) had been
Nerve-Sparing Surgery Preserves Reproductive Function In Testicular Cancer Patients, Analysis Shows

The long-term analysis shows that nerve-sparing RPLND effectively preserves emission, ejaculation and long-term fertility, Dr. Foster said. The procedure indeed preserves a necessary function and improves the quality of life for these men.

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IU RESEARCHERS FIRST TO TEST GENE TRANSFER USING FIBRONECTIN PARTICLES IN TESTICULAR CANCER PATIENTS

INDIANAPOLIS -- Indiana University School of Medicine researchers are involved in a study that may hold hope for cancer patients whose treatment options are severely limited due to the advanced stage of their disease.

The first human trial using genetically engineered human protein fragments to enhance the transport of a retrovirus into normal bone marrow cells of patients with testicular cancer will be reported by researchers from the IU School of Medicine during the May 27-31 meeting of American Society of Gene Therapy in Seattle.

The human protein being used to bring together the retrovirus and the bone marrow cells is fibronectin, which was developed by researchers at the IU School of Medicine in collaboration with Takara Shuzo Co., Ltd, a biotechnology firm in Otsu, Shiga, Japan.

Nine patients have received the therapy to date in the Phase I trial. Within six months, it is hoped that a total of 15 patients will have undergone the therapy, said Rafat Abonour, M.D., principal investigator of the trial, assistant professor and medical director of the Indiana University Stem Cell Laboratory.

"The study is designed to see if this process enhances the transfer of the retrovirus containing therapeutic genes into bone marrow cells using the fibronectin," Dr. Abonour said. "It is too early to determine the efficacy of the trial, but the important thing at this point is that all nine patients have tolerated the procedure well."

The patients in the trial have refractory or relapsed germ cell tumor (testicular cancer) and have undergone bone marrow transplants and high dose chemotherapy. In the past, about half the testicular cancer patients whose disease returned have been cured by additional chemotherapy. Typically, bone marrow transplant patients who have relapsed are unable to receive the additional chemotherapy because repeated exposure to these toxic agents had destroyed their bone marrow cells. The result has been a dangerous delay in treatment or reduction of the dose of these drugs.

In this study, IU researchers are attempting to develop a way to make these patients tolerate additional, intense treatment. By introducing a gene called MDR-1 into the bone marrow cells, researchers hope to shield normal cells from further chemotherapy, thus enabling patients to receive the additional chemotherapy needed to eradicate residual disease and prevent return of cancer following bone marrow transplantation.

"MDR-1 works as a pump," explained Dr. Abonour. "Every time the chemotherapy goes into the normal bone marrow cells, the MDR-1 will pump it out. That will prevent the death of the cells."
The fibronectin fragments are crucial to the process because they enhance the delivery of useful genes into bone marrow cells."

The fibronectin fragments are the glue that will allow the retrovirus to bind to the therapeutic cells," said Dr. Abonour. "They enhance the transfer of the retrovirus containing MDR-1 into bone marrow cells of cancer patients."

Bone marrow cells are essential for producing white blood cells to fight infection, red blood cells to carry oxygen and platelets to prevent bleeding. Maintaining an adequate number of these cells allows patients to receive chemotherapy without dangerous side effects such as infection or bleeding.

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New Anti-Angiogenesis Agent Found To Be Safe In Initial Tests In Cancer Patients

INDIANAPOLIS -- A new anti-angiogenesis agent has proven to be safe in the treatment of patients with various forms of metastatic cancer, researchers at Indiana University School of Medicine reported Monday, May 18, at the annual meeting of the American Society of Clinical Oncologists in Los Angeles.

Michael S. Gordon, M.D., associate professor and principal investigator of the Phase I trial, said, “The new agent, anti-VEGF antibody, was well tolerated in our initial trial. Adverse effects were mild and limited to symptoms such as headache and low-grade fever in a limited number of the trial participants.”

The Phase I trial assessed the safety of the new agent, called anti-vascular endothelial growth factor (rhuMAb VEGF or anti-VEGF antibody), on 25 adult patients at doses ranging from 0.1 to 10.0 mg/kg/dose. The agent was administered intravenously over 90 minutes once during the first month of therapy and weekly for three consecutive weeks in the second month of treatment. One of those patients with renal cell cancer showed a 39 percent reduction in tumor size. An additional 13 patients had stable disease at the end of the study period.

Since safety was shown in the Phase I trial, early Phase II clinical trials are beginning studying patients with various types of solid tumors who meet the eligibility criteria.

Despite advancements made in chemotherapy, some tumor types are unresponsive to even the most aggressive chemotherapy agents. In pre-clinical trials, the anti-VEGF antibody resulted in a decline in the growth and metastasis in a variety of these chemotherapy-resistant solid tumors.

Angiogenesis is the formation of new blood vessels. Anti-angiogenesis is the inhibition of new blood vessel formation. Research has shown that cancerous tumors need blood supply to grow and metastasize.

VEGF is a protein that is secreted from blood-deprived tissues and from some types of malignant cells. VEGF regulates angiogenesis by binding to specific receptors on nearby blood vessels, causing new vessels to form. Anti-VEGF antibody, a recombinant humanized monoclonal antibody, has the ability to inhibit this effect by preventing VEGF from binding to its receptors.

The anti-VEGF antibody was developed at and the study was sponsored by Genentech, Inc. of South San Francisco, Calif. Two other institutions, M.D. Anderson Cancer Center in Houston, Texas, and City of Hope Medical Center in Los Angeles, were involved in the Phase I study.
New Anti-Angiogenesis Agent Found To Be Safe In Initial Tests In Cancer Patients

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New Combination Drug Regimen Prolongs Survival In Late Stage Lung Cancer

INDIANAPOLIS - Patients with non-small cell lung carcinoma, the most common form of lung cancer, lived longer and responded better to a new combination drug therapy studied at 39 medical centers throughout the world, according to final results of a major clinical study presented at the American Society of Clinical Oncology meeting held in Los Angeles May 16-19.

Researchers reported a statistically significant difference in one-year survival when patients were treated with the combination of gemcitabine and cisplatin. More patients who received the combo therapy were alive after one year (39 percent), than were patients who received the widely-used agent cisplatin (28 percent) as a single agent.

“When left untreated, metastatic lung cancer can take the lives of patients within four months,” said Alan Sandler, M.D., lead investigator of the international trial and assistant professor of medicine at Indiana University School of Medicine. “Our research shows there’s better treatment options available today than ever before and patients owe it to themselves to explore those options with their doctors.”

Dr. Sandler and his investigators also reported that tumors were reduced by more than half in more than 31 percent of patients receiving gemcitabine-cisplatin versus 12 percent of patients treated with cisplatin alone.

The American Cancer Society estimates that 171,500 people will be diagnosed with lung cancer this year, with 75 to 80 percent of those being non-small cell lung cancer. Cigarette smoking remains the most important risk factor in developing lung cancer. In the United States, non-small cell lung cancer occurs in 47 out of every 100,000 people, according to the National Cancer Institute.

The international study evaluated 522 patients who had never received prior chemotherapy treatment. The median age of the patients was 62 years old in the combination group and 63 years old in the single-agent group. Of those patients receiving gemcitabine-cisplatin, 67 percent were classified as Stage IV, the most advanced stage of cancer. Seventy percent of patients receiving cisplatin were Stage IV.

Myelosuppression, a reduction in blood cell counts, was not unexpectedly seen more frequently in the group receiving the combination therapy. In both groups, nausea and vomiting were the most commonly reported side effects.

Cisplatin is a common chemotherapy agent used to treat ovarian, testicular, bladder and non-small cell lung tumors. Based on the findings of Dr. Sandler’s clinical trial, gemcitabine has been recommended for approval by an independent committee of experts to the FDA as a single agent and as first-line treatment for non-small cell lung
New Combination Drug Regimen Prolongs Survival In Late Stage Lung Cancer

cancer in combination with cisplatin.

# # #

Fact sheet:
Gemcitabine-Cisplatin Cancer Research
Alan Sandler, M.D.

Lung cancer is the most common cause of cancer death in the United States, according to the American Cancer Society, which predicts that there will be 160,100 related deaths this year. Researchers are vigorously trying to find the best chemotherapy combinations. Alan Sandler, M.D., assistant professor at the Indiana University School of Medicine, was principal investigator of a major international lung cancer study that has found a new combo therapy with promising results. Below are highlights of his research:

Study population:

The study, which involved 70 investigators and 39 cities in North America and Europe, evaluated 522 patients who either received gemcitabine-cisplatin or cisplatin alone.

Of those who received gemcitabine-cisplatin 67.7 percent had the most advanced stages of non-small cell lung cancer. The median age was 62 in the gemcitabine-cisplatin group and 63 in the cisplatin group.

Results:

Survival: After one year of treatment of gemcitabine-cisplatin, 39 percent of patients were alive compared with 28 percent who received cisplatin alone.

Tumor response: Tumors were reduced by more than half in 31 percent of patients receiving gemcitabine-cisplatin versus 12 percent of patients treated with cisplatin alone.

Disease progression: The average time to disease progression was 5.8 months for gemcitabine-cisplatin patients compared with 3.7 months for cisplatin patients.

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INDIANAPOLIS -- Two new faces have been added to the Indiana University School of Medicine faculty, filling key administrative positions at the nation's second largest medical school.

Michael Koch, M.D., began his duties as the new chairman of the Department of Urology on April 23. On May 1, Joseph Chu, M.D., M.P.H., assumed his new position as associate dean for student and curricular affairs.

Dr. Koch succeeds John Donohue, M.D., who served as chairman of the urology department for 23 years, retiring in 1994.

Dr. Koch said he is very interested in developing the urology oncology program by building the clinical practice and by increasing the focus on both clinical and basic science research.

"I am interested in expanding the urology practice at IU, particularly in prostate and bladder cancers," he said. "Indiana currently is a world leader in the treatment of testes cancer. I would like to bring its reputation for the treatment of prostate and bladder cancers up to the same level."

Dr. Koch received his bachelor's degree from Dartmouth College and his medical degree from Dartmouth Medical School.

Dr. Koch was on faculty at the Vanderbilt University School of Medicine since 1987 where he was an associate professor and the vice chairman of the Department of Urology. He was actively involved in redesigning hospital functions to improve efficiency and patient care. He also served as the chief of urology at Veterans Administration Medical Center in Nashville for the past 11 years.

Dr. Chu's appointment as associate dean also includes professorships in medical education, public health, and obstetrics and gynecology.

Dr. Chu said he will assess the needs and desires of the students before forming any concrete plans. He is, however, a strong advocate of computer literacy and student research.

"My main hope is to be able to give students the opportunities to learn things that they need to know to develop their careers," he said.

Dr. Chu, a native of Chicago, most recently was assistant dean for curriculum at the University of Washington School of Medicine. A faculty member since 1981, he
served as an associate professor in the Department of Obstetrics and Gynecology, the Department of Epidemiology with the School of Public Health and Community Medicine, and the Division of Public Health Sciences at the Fred Hutchinson Cancer Research Center.

Dr. Chu received his medical degree from Georgetown University School of Medicine and his master's degree in public health from the University of Washington School of Public Health.

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Alzheimer Disease Patients Have New Treatment Option With Metrifonate

INDIANAPOLIS --Alzheimer disease patients participating in the first study of the new cholinesterase inhibitor, metrifonate, experienced improvement in their cognitive test scores from their pre-treatment scores, an Indiana University School of Medicine researcher reported at the 50th annual meeting of the American Academy of Neurology.

The 1,504 patients with probable AD of mild to moderate severity participated in either a 12-week, double-blind trial or a 26-week, double blind trial. Participants received either a placebo, a low dose treatment of metrifonate (30-60 mg based on patient weight), or a high dose treatment of metrifonate (60-80 mg based on weight).

According to the study's lead investigator, Martin Farlow, M.D., professor and vice chairman for research in the Indiana University Department of Neurology, the effect of the high dose treatment was statistically superior to that of the low dose treatment.

Patients were evaluated by ADAS-Cog, a validated, 11-item scale designed to assess cognitive performance in areas of memory, language and the ability to follow directions.

"This study is encouraging news for AD patients and their families," said Dr. Farlow. "It shows metrifonate improves cognitive performance above pre-treatment levels in patients with mild to moderate AD."

The study also showed that higher doses of metrifonate produced a more significant improvement in cognitive performance with no increase in safety problems or decline in tolerability.

"Peripheral cholinergic side effects did not significantly increase with the higher dosage of metrifonate as has been seen with some of the other cholinesterase inhibitors," Dr. Farlow added.

The study was based on four district, postive, randomized, multi-center, double-blind, placebo-controlled trials. Metrifonate is a cholinesterase inhibitor developed by Bayer Corporation of Connecticut.

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Alzheimer Disease Patients Have New Treatment Option With Metrifonate

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For Immediate Release
May 8, 1998

IU Offers Mental Health Symposium For Consumers/Professionals

INDIANAPOLIS -- Current trends, important breakthroughs and the promising future of psychiatric research and treatment will be the focus of discussion at the first annual mental health symposium presented by the Indiana University School of Medicine's Department of Psychiatry on June 10.

Mental health advocates, consumers, family members and professionals are invited to attend Unlocking the Mysteries of Mental Health: From Research to Treatment, which will take place from 8 a.m. to 5 p.m. at the University Place Conference Center on the IUPUI campus. The symposium is being held in conjunction with the annual meeting of the Mental Health Association in Indiana, Inc., and is underwritten by an educational grant from Lilly Neuroscience.

Since 1955 IU's Institute for Psychiatric Research has been investigating the relationship between brain and behavior and has become a nationally-renowned psychiatric research unit. The Institute's research contributes directly to advances in mental illness treatment. Faculty from the Institute will present information at the symposium based on their research and treatment of depression, bipolar disorder, schizophrenia, autism, substance abuse, Alzheimer's disease, genetic counseling, mood disorders, anxiety disorders and dissociative disorders.

Lydia Lewis, executive director of the National Depressive & Manic-Depressive Association and a national leader in the consumer mental health movement, and Jeffrey Buck, Ph.D., associate director of the Center for Mental Health Services and co-author of a nationwide study on the efficacy of mental health treatment in the U.S., are scheduled as keynote speakers for the Mental Health Association's (MHAI) annual meeting, which will take place during breakfast and lunch sessions. MHAI, a statewide organization with more than 60 local chapters, was created as the mental health advocate for all citizens through promotion of research, education, public understanding and acceptance, effective health care delivery and public policy.

The registration deadline for the symposium and/or annual meeting is June 1. For more information or to register, please call (317) 638-3501 or (800) 555-MHAI.

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Indiana University School of Medicine

Sentinel lymph node mapping, which is gaining attention as a cutting-edge treatment for breast cancer patients, has been in use for melanoma patients at IU for nearly four years. Jeffrey Wagner, M.D., surgical director of the IU Interdisciplinary Melanoma Program, says the procedure has proven effective in detection of lymph node metastases of the deadly cancer melanoma which is known for its ability to lie undetected and then reappear months or years later.

Pet scans and sentinel node mapping may offer improvement in the treatment of patients with melanoma, according to Jeffrey Wagner, M.D., surgical director of the IU Interdisciplinary Melanoma Program. Dr. Wagner is the recipient of a $790,000 National Institutes of Health grant to study the advantages of PET (positron emission tomography) in early detection of melanoma metastases. Before it spreads, survival rates for melanoma patients are 80 percent to 90 percent, but the outlook worsens drastically once the cancer spreads to the lymph nodes (30 percent to 40 percent) or other organs (10 percent).

The IU Interdisciplinary Melanoma Program is participating in a $26.8 million international clinical study of a vaccine for the skin cancer melanoma. The study could result in the first commercially available vaccine for the treatment of a cancer. The vaccine is created from weakened, irradiated melanoma cells collected from other patients and is designed to stimulate the body’s immune system. The vaccine is unique, says Jeffrey Wagner, M.D., surgical director of the IU melanoma program, because it is given after surgery removes all detectable melanoma cells, allowing the body’s immune system to recover. Then the vaccine stimulates the immune system to attack the markers on the remaining undetected melanoma cells, which are the cause of treatment failure in the majority of patients.

Just how safe are tanning beds? Can they cause skin cancer? Do they actually help prepare a person for the unforgiving glare of the summer sun? Do dermatologists recommend their use? Holly Faust, M.D., assistant professor of dermatology, says tanning beds are not what they are purported to be.

Sun worshipers and sunbathers may have heard it all before, but are they really
listening? What is the best thing for people to do to protect themselves from sunburn? Do sunscreens actually protect a person from skin cancer or do they create a false sense of security? Holly Faust, M.D., assistant professor of dermatology, has several tips to make summer fun a lasting memory not a heartache.

World No-Tobacco Day 1998 has been set for May 31. The program is sponsored by the World Health Organization and this year’s slogan is “Growing up without tobacco.” Experts from the IU Nicotine Dependence Program are available to discuss data on tobacco use, tips for stopping smoking or a myriad of other issues related to tobacco use.

The bite of a bee is painful to everyone but for some people it can be deadly. What can people who are sensitive or highly allergic to bee stings do to protect themselves? What should parents know and how should they be prepared to treat bee stings in children? Can people outgrow or develop allergies at any point in their life? What is a bee sting kit and who should have one? IUSM allergist William Baker, M.D., can address these concerns and more to prepare Hoosiers for outdoor life in the summer.

Can exercise and conditioning help asthma sufferers live a healthier life? And, can exercise bring on asthma in people who do not normally suffer from the condition? William Baker, M.D., assistant professor of medicine and an allergy specialist, says yes to both questions and would be willing to provide tips and preventive advice. Some people mistake exercise-induced asthma for just “being out of shape.” How can you tell the difference?

If you suffer from asthma just about anything can trigger an attack. But, did you know that the fragrance you dab behind your ear before leaving for the theater can produce anguish for another person? Hair spray, temperature changes, smoking, exercise, dust and chocolate are just a few of the many, many triggers for asthmatics? But, did you know that even mood changes can trigger an attack? William Baker, M.D., an IU allergy specialist, can explain how and why these substances work as toxins to some people.

Osteoarthritis is the foremost crippler of older Americans. Currently on the list of miracle cures are two dietary supplements: glucosamine and chondroitin sulfate. Their attributes have been touted in the popular press. Kenneth Brandt, M.D., an expert in the treatment of osteoarthritis, says he believes the two supplements deserve a closer look from the traditional medical community.
Exercise-Induced Asthma May Be More Common In Regular Exercisers Than Previous Studies Suggest, Researchers Say

INDIANAPOLIS -- The incidence of exercise-induced asthma in regular exercisers may be higher than previously believed, according to information reported at the American Lung Association/American Thoracic Society International Conference by researchers at Indiana University School of Medicine.

Chronic asthma affects 4 percent to 7 percent of the general population and 80 percent of these individuals have exercise-induced asthma (EIA). But, earlier studies of EIA in athletes showed that 11 percent of Americans who participated in the 1984 Summer Games experienced EIA. A more recent study at Indiana University School of Medicine of elite figure skaters showed that 43 of the 124 tested (36 percent) had EIA.

Edward T. Mannix, Ph.D., led researchers at the IU School or Medicine, in conjunction with the National Institute for Fitness and Sport in Indianapolis. They hypothesized that non-athlete members of a training facility who exercise regularly would display a higher incidence of EIA than the population at large.

Tests were performed on 39 volunteers who exercise regularly. The volunteers, 21 women and 18 men with an average age of 33, were caused to hyperventilate for five minutes, thus recreating the physical effects of a strenuous workout. Of those participating, 14 individuals (36 percent) tested positive for EIA, leading researchers to conclude that exercise-induced asthma might have a higher prevalence than previously estimated.

EIA is defined as a decrease in lung function following vigorous exercise. It is believed to be caused by the movement of air in the airways which dries the mucous linings and causes a change in the chemical composition of the airway, triggering the onset of asthma symptoms. Asthma symptoms may include wheezing, coughing, difficulty breathing and a tightness in the chest.

“The results of this research may help alert regular exercisers and their physicians that this problem is more wide-spread than previously thought and it may, hopefully, result in increased screening and treatment for this disease,” said Dr. Mannix.

The 1998 American Lung Association/American Thoracic Society International Conference will be held April 24-29 in Chicago. The conference is the largest annual scientific meeting in the world focusing on respiratory disease and critical care medicine. More than 15,000 pulmonary physicians, scientists, and other health care professionals from around the world are expected to attend.

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Exercise-Induced Asthma May Be More Common In Regular Exercisers Than Previous Studies Suggest, Researchers Say

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For Immediate Release  
April 22, 1998

IU Sponsors Free Seminar on Healthy Eating

INDIANAPOLIS -- The Indiana University Center for Weight Management is conducting a free, educational seminar entitled “Cook Light, Eat Right” at 6 p.m., Wednesday, May 20, at the Kroger supermarket, 116th Street and Allisonville Road, in Fishers.

managing your weight can be overwhelming, but it doesn’t have to be. One important step is learning how to eat right, cook light, and still enjoy it. The IU Center for Weight Management seminar is designed to help people learn how to do just that.

The program is taught by Stacey Bengochea, a registered dietitian, and will include a cooking demonstration.

The IU Center for Weight Management, directed by Barry Gumbiner, M.D., was established to safely and effectively treat obesity and the medical risk factors associated with the condition.

To register for the program, call 317-278-2612.

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April 22, 1998

280 New Physicians To Take Hippocratic Oath On Mother’s Day

INDIANAPOLIS -- Two hundred-eighty of Indiana’s newest physicians will take the Hippocratic oath in a ceremony at the Indiana Convention Center on Mother’s Day, Sunday, May 10.

That ceremony for the most recent Indiana University School of Medicine graduates will take place following the ceremonies for all 1998 Indiana University-Purdue University Indianapolis graduates. The processional at the RCA Dome for students receiving degrees from IUPUI will begin at 2:30 p.m. with formal ceremonies beginning at 3 p.m. The event should conclude by 4:30 p.m. at which time IU School of Medicine graduates and their family and friends will adjourn to Hall A at the Convention Center for the awarding of their diplomas. At that time, the new physicians will take the time-honored pledge to their new profession, known as the Hippocratic oath.

The majority of the graduating class are Hoosiers, but 13 are from other states and two from foreign countries.

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I.U. School of Medicine Receives $7.2 Million for Cancer Research

INDIANAPOLIS -- The Indiana University School of Medicine has been awarded a $7.2 million National Cancer Institute (NCI) program grant to support studies in how to increase chemotherapy dosage without damaging normal cells. Drugs used to treat cancers are often considered miracle drugs when they cure the patient of cancer, but the downside of these drugs is the damaging side effect they inflict on the patient’s blood cells and organs.

The grant will support four projects in which the IU scientists and research physicians will determine how to increase the amount of repair protein produced by the cells’ DNA. The IU researchers will insert genes to alter the DNA code of the healthy cells so that they will make more of the protein. They hope this will correct damage done to cells and organs by the drugs used to treat cancers. In parallel studies, they will look at methods that reduce or inhibit DNA repair activity in tumor cells, a significant cause of tumor resistance to chemotherapy and radiation. These efforts will be complemented by gene therapy research trials for patients with lymphomas and brain tumors.

The experience of faculty in the Herman B Wells Center for Pediatric Research in DNA repair, stem cell formation, molecular biology, vector technology, pharmacology and lung biology that secured the NCI grant. This is the fourth program grant awarded to Wells Center investigators since 1991. A gene vector laboratory at IUSM, recently designated as one of three such laboratories funded by the National Institutes of Health, manufactures the synthetic viruses used in gene therapy to transport altered genes.

In addition, Wells Center researchers have recently developed a technology to improve gene transfer using cloned fibronectin, a naturally occurring protein in the body. Fibronectin creates an adhesion between the vectors used to transport genes and the cells into which they’re transporting the genes. Fibronectin is already in adult and pediatric clinical trials at IU.

The effort at IUSM is being led by David Williams, M.D., professor of pediatrics and an investigator in the Wells Center for Pediatric Research and Howard Hughes Medical Institute. Project leaders for this grant are Kenneth Cornetta, M.D.; Edward Dropcho, M.D., Xunxiang Du, M.D.; Leonard Erickson, Ph.D.; Mark Kelley M.D.; William Martin, M.D., and Robert Tepper, M.D., Ph.D. Other team members include Philip Breitfeld, M.D., Larry Cripe, M.D., James Croop, M.D.; Regina Jakacki, M.D., and Emanuel Lazarides, Ph.D. They represent the departments of pediatrics, medicine, neurology, medical and molecular genetics, and biochemistry and molecular biology, as well as the Walther Oncology Center.

The NCI program grant will allow IU researchers to continue laying the groundwork for cutting edge advancement in cancer therapy and will provide innovative approaches to childhood cancer treatment in years to come.
I.U. School of Medicine Receives $7.2 Million for Cancer Research

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News Release Archives | Media Relations | IU School of Medicine
For Immediate Release
April 17, 1998

Vaccine Being Tested At IU School of Medicine Holds Promise For The Deadly Cancer Melanoma

INDIANAPOLIS -- The Indiana University School of Medicine is participating in a $26.8 million international clinical study of a vaccine for the skin cancer melanoma. The study could result in the first commercially available vaccine for the treatment of a cancer.

Nearly 800 Hoosiers develop melanoma each year and approximately 150 will die of the disease because their cancer has advanced beyond the point of effective treatment. Now these patients may have another chance to beat the deadly disease if the melanoma vaccine proves effective. Researchers say it also may hold promise for other forms of cancer.

The IU Interdisciplinary Melanoma Program is participating in the five-year study being conducted at 34 sites in the United States, Canada, several European countries and Australia.

Jeffrey Wagner, M.D., surgical director of the IU Cancer Center’s Interdisciplinary Melanoma Program, said the study holds promise for the 40,000 people nationwide who develop melanoma each year.

“Preliminary reports have found that the vaccine raises a strong immune response in more than 42 percent of the Stage IV patients receiving it,” Dr. Wagner said. “If this study progresses as anticipated, the new vaccine could be available for treating Stage IV melanoma patients within a couple of years.”

Participants in the IU study will have State IV or advanced disease, meaning the melanoma has metastasized (spread) to other organs. Between 10 and 15 patients will be enrolled in the study over the next three years. Each participant will be receive multiple vaccinations with either the vaccine or a placebo. The trial is a randomized study comparing the vaccine to placebo in Stage IV patients who have had all sites of melanoma metastases removed.

The vaccine is created from weakened, irradiated melanoma cells collected from other patients and is designed to stimulate the body’s immune system. The vaccine is unique, Wagner says, because it removes all detectable melanoma cells, allowing the body’s immune system to recover; then the vaccine stimulates the immune system to attack the markers on the melanoma cells.
“This is a novel approach to a disease with no satisfactory solution at this time,” Dr. Wagner said. “Currently, treatment for patients with Stage IV melanoma is limited to surgery and aggressive chemotherapy which doesn’t improve their survival and is very toxic.”

Melanoma is responsible for 75 percent of all skin cancer deaths. Skin cancer is the most common kind of cancer, but usually is slow growing and has a 95 percent cure rate if caught early.

Unlike some forms of skin cancer, melanoma is insidious, frequently lying undetected for months or metastasizing early in its development and later appearing in multiple sites.

For additional information on the melanoma clinical research program which will begin at IU by early summer, call 317-278-0370.

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Send to: I.U. School of Medicine
Office of Public & Media Relations

Contact: Mary Hardin
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Dr. Harvey Feigenbaum Gives Keynote Address

INDIANAPOLIS—A pioneer in the development of ultrasound for the detection of heart disease and disorders, Harvey Feigenbaum, M.D., will be giving a keynote address on current developments in the use of echocardiography to thousands of cardiologists attending this year's American College of Cardiology annual meeting. His address, the Louis F. Bishop Lecture, will be Tuesday (March 31) at 2 p.m. EST in the World Congress Center, Atlanta, Georgia.

Dr. Feigenbaum, a distinguished professor of medicine at the Indiana University School of Medicine, will highlight several new advances that are still in technological development. Those underway in his laboratory at IUSM include "harmonic imaging" which will give physicians a totally different way of looking at human tissue. The IUSM team has been conducting studies with a prototype model and will present their findings during the ACC meeting. The technology eliminates background noise (typically found in standard ultrasound imaging) and provides a cleaner picture of cardiac muscle. This technical advance is particularly helpful in stress echo which was pioneered at IUSM. The high imaging technique is now available on several commercial echographs.

Digital techniques refined by the team at IUSM also will be discussed by Dr. Feigenbaum. "We have used digital recording of echocardiography for some years. This approach to the recording and display of ultra echocardiograms greatly enhances the utility and cost effectiveness of the cardiology tests."

Another important advance which is being investigated at IUSM is contrast echo. This technique involves injecting a liquid which circulates in the blood and can be seen on an echocardiogram. There have been several important recent breakthroughs in this field. "An exciting possible use for this technology is to record blood flow within the heart muscle," says Dr. Feigenbaum. "Now we can actually see how the muscle is functioning, how well it's taking up blood, to determine its state of health."

Other technologies under development which will be addressed by Dr. Feigenbaum include a small, hand-held ultrasound system that physicians can carry and use "much like we now use the stethoscope. We won't see this come into the clinic for another two years but we are very excited about it," says Dr. Feigenbaum. "It will truly be the stethoscope in its purest sense.

"All of this becomes more noteworthy when we consider that ultrasound is extremely cost effective, less expensive than any other diagnostic tests now used to define heart disease including angiography, the MRI, the CT and nuclear studies," he adds.

Send to: I.U. School of Medicine
Dr. Harvey Feigenbaum Gives Keynote Address

Office of Public & Media Relations

Contact: Pamela Perry
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Indianapolis—John Beaven, M.D., was the recipient of the first Virtuous Physician Award, presented by the Program in Medical Ethics at the Indiana University School of Medicine.

Dr. Beaven, a long-time Jasper physician, received the award in a surprise ceremony March 11 at Memorial Hospital Medical Arts Building in Jasper. The presentation was made by Jasper native Greg Gramelspacher, M.D., associate professor of medicine and director of the Program in Medical Ethics at the IU School of Medicine.

Dr. Beaven was honored for his years of compassionate service and dedication to his patients and the field of medicine. Dr. Beaven has been practicing medicine in Jasper for more than 40 years. A virtual institution in the community, Dr. Beaven was a friend and mentor to Dr. Gramelspacher, who has been on the IU School of Medicine faculty since 1989.

Dr. Gramelspacher said Dr. Beaven embodies the ideals being addressed and taught to IU medical students through the Program in Medical Ethics.

In attendance at the surprise awards program was Dr. Beaven’s daughter, Susan Beaven, M.D., of St. Petersburg, Fla., who is a 1982 graduate of the IU School of Medicine.

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Send to: I.U. School of Medicine
Office of Public & Media Relations

Contact: Mary Hardin
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March 9, 1998

IU School of Medicine Performance Benefits Indianapolis Homeless Community

INDIANAPOLIS -- The IU School of Medicine's seventh annual Evening of the Arts, a performing and visual arts showcase featuring the artistic talents of students, residents, faculty and staff, will take place on Wednesday, April 8, 7:30 p.m. at the University Place Conference Center auditorium on the IUPUI campus.

Numerous acts are scheduled and will include vocal, instrumental and dance performances that range from classical to gospel to contemporary in style. The program is not solely about entertainment, however. It's also about helping the homeless.

Proceeds from ticket sales and from a silent auction will be used to purchase medical supplies and equipment for area clinics and shelters that serve the homeless. These facilities include Wheeler Mission, the Salvation Army Clinic, Horizon House, Gennesaret Free Clinic, Good News Mission and St. Thomas Clinic in Franklin, where many IU medical students and physicians volunteer their time throughout the year to provide patient care as part of the IU School of Medicine's Health and Homelessness Project.

The Health and Homelessness Project was created in 1989 by IU School of Medicine students to provide medical services to the Indianapolis homeless community. The program is student directed under the supervision of a faculty advisor. Student and physician volunteers are assigned to one of the six clinics and provide staffing on a rotating basis.

Many medical students say they were called to medicine because they want to serve and help others. And even though medical school keeps students extremely busy with classes, hospital rotations and studying, IU School of Medicine students remain dedicated to their calling by volunteering at homeless shelters and clinics, and participating in the Evening of the Arts benefit. Students have commented that volunteering at the clinics is a rewarding experience that really puts medicine and service into perspective.

Tickets for Evening of the Arts are $7 and may be purchased at the door. Charitable donations to the Health and Homelessness Project are appreciated and should be mailed to Evening of the Arts, c/o IUSM Student & Curricular Affairs, 635 Barnhill Dr., MS 119, Indianapolis, Indiana 46202-5120. For more information please call (317) 274-7173.

# # #
IU School of Medicine Performance Benefits Indianapolis Homeless Community

Contact: Ellen Gullett
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February 27, 1998

Research Demonstrates Risedronate Increases Bone Mass In Post Menopausal Women

INDIANAPOLIS--Risedronate, a drug currently under development for the prevention and treatment of osteoporosis, significantly increases bone mass in post menopausal women, a new study indicates. The study results suggest that risedronate may help prevent the debilitating effects of osteoporosis.

The study appears in the February issue of the Journal of Clinical Endocrinology & Metabolism. The data was compiled from clinical trials at Indiana University School of Medicine and a Danish university.

Researchers at I.U. found that when they treated early post menopausal women with risedronate the women’s bone mineral density (BMD) increased, while a group of women treated with placebo actually lost bone. All of the women had normal bone mineral density at the beginning of the study.

“Osteoporosis is a serious and debilitating condition and thus prevention is just as critical as treatment,” said C. Conrad Johnston Jr., M.D., professor of medicine at IU. “This study indicated that early intervention with risedronate may be effective at preventing the bone loss that can lead to osteoporosis.”

The new study involved 111 post menopausal women who were randomized to one of three groups: the daily group, which received 5 mg of oral risedronate daily; the cyclic group, which received 5 mg of oral risedronate daily for the first half of every month followed by placebo for the remainder of the month; or the placebo group, which received daily oral placebo for the entire study period.

After two years, women in the daily and cyclic risedronate groups had increases in the amount of bone in their hip of 5.4 percent and 3.3 percent, respectively, while women in the placebo group experienced no increase. Women treated with placebo actually lost bone mass in the spine (an average loss of 4.3 percent), while those taking risedronate daily (the daily group) had an average increase of 1.4 percent.

When risedronate therapy was stopped at the end of two years, bone loss resumed in the treated groups, according to Dr. Johnston. But overall, levels of bone mass at the spine and hip of those treated with risedronate remained higher than that in the placebo group.

“This may indicate a persistent overall benefit of therapy,” Dr. Johnston said. “Based on the study results, risedronate could be an important new alternative for the prevention of early bone loss after menopause.”

Risedronate also appeared to be well tolerated by women in the study. There was no difference in the incidence of adverse events among the treatment and placebo
Osteoporosis affects about 28 million Americans, most of them women. Post menopausal women are at especially high risk because their bodies no longer produce enough estrogen to maintain healthy bones. The loss of bone mass puts people at increased risk of fractures; in fact, osteoporosis is responsible for an estimated 1.5 million fractures annually in the United States.

Risedronate, to be marketed under the brand name Actonelâ by Procter & Gamble and Hoechst Marion Roussel if approved by regulatory authorities, is a new generation of drug called a pyridinyl bisphosphonate, a compound that works by preventing the breakdown of bone that results in osteoporosis and other bone disorders. It currently is in phase III trials for the prevention and treatment of osteoporosis, and is under review by the U.S. Food and Drug Administration for the treatment of Paget's disease, another severe bone disorder.

In another recent study involving patients with Paget's disease, daily treatment with risedronate significantly reduced bone pain, reduced the amount of disease activity, and was well tolerated in patients with progressive disease. Like osteoporosis, Paget's disease increases the risk of fractures of crucial bones such as the hip, wrist and spine. It is caused by excessive breakdown of bone, followed by abnormal regrowth that leaves bones weak and can cause severe pain.

The results of this study were published in the January issue of the journal Bone.

# # #

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March 20, 1998

Primary Care At IU School of Medicine Ranked Among Top Medical Schools

INDIANAPOLIS--The primary care graduate program at the Indiana University School of Medicine was ranked 20th in the nation according to U.S. News & World Report's "1998 America's Best Graduate School" guide.

The U.S. News rankings evaluated residency programs in family practice, general internal medicine and pediatrics. Ranked first in the nation for its primary care graduate program was the University of Washington. IU School of Medicine tied at 20th with the University of California- San Diego, University of Kentucky and University of Maryland-Baltimore.

The primary care rankings are based on a complex formula that scores performance in five areas:

- Reputation: Evaluations from medical school deans and senior faculty accounting for 15 percent of rankings and evaluations from directors of inter-residency programs accounting for 15 percent.

- Research activity: This accounts for 30 percent of the overall rankings and is based on the total dollar amount of National Institutes of Health research grants awarded to the medical school and its affiliated hospitals in 1996 and 1997.

- Student selectivity: Medical College Admission Test scores, undergraduate grade point averages and the proportion of applications accepted into the program are combined for 15 percent of the ranking.

- Faculty resources: The ratio of 1997 full-time science and clinical faculty to full-time students.

The IU School of Medicine was scored high in the areas of reputation by academics and student selectivity, faculty resources.

The 1998 "America's Best Graduate Schools" issue and guidebook will be on newsstands Monday, Feb. 23.

# # #

Send to: I.U. School of Medicine
Office of Public & Media Relations

Contact: Mary Hardin

February 10, 1998

Police Officer Uses Portable Defibrillator To Save Life; First Save For IU Study

INDIANAPOLIS--The first "save" of a cardiac arrest victim by an Indiana police officer using a portable automated external defibrillator (AED) has been recorded according to researchers at the Krannert Institute of Cardiology at Indiana University School of Medicine. The researchers began a study last year known as PARADE (Police as Responder Automated Defibrillation Evaluation) to evaluate the effect of training and equipping police officers in designated counties of Indiana with AEDs. An AED automatically analyzes the heart rhythm, chooses the right amount of electricity to deliver and coaches the operator with audio and visual prompts.

On January 31, 1998, an off-duty City of Muncie police officer was driving in his car with his two young children when he went into cardiac arrest and hit another car. Daniel Hahn, an officer from the Delaware County Police Department, was driving nearby and was immediately dispatched to the scene. There, two nurses had come upon the accident and were giving CPR to the 41-year-old victim, Mark Vollmar. Hahn used an AED to resuscitate the officer, who had a previous history of heart disease. The estimated time from collapse to the first defibrillatory shock was less than three minutes. The victim's pulse was restored after two shocks. Emergency medical services (EMS) ambulance personnel were on the scene a few minutes later. The officer's condition then deteriorated, requiring the administration of additional shocks and medications by EMS personnel. The officer was admitted to the hospital and underwent surgery. He was released from the hospital on February 7, 1998.

The Delaware County Police Department was equipped with AEDs last fall through PARADE. This case represents the first time an AED was used by the Delaware County Police Department as well as the first time during the PARADE study that a victim resuscitated by a police officer was discharged from the hospital. In an earlier case, police officers in Cicero, Ind., in Hamilton County, successfully resuscitated an elderly woman who was admitted to the hospital, but died 10 days later in surgery.

The four counties currently enrolled in the PARADE study to date are Hamilton, Shelby, Delaware and Marshall counties. More than a dozen other counties have expressed interest in participating in the study.

Sudden cardiac arrest is the single leading cause of death in the U.S., striking about 1,000 Americans each day. Whether victims survive sudden death depends on how quickly they can be defibrillated. The shorter the time from collapse to defibrillation, the better the chances of survival. If defibrillation is delayed for more than 10 minutes, survival rates drop to virtually zero.

The rationale for the PARADE study is that police officers often can be on the scene more rapidly than traditional EMS responders. Preliminary data from the PARADE trial suggests that police officers arrive at the scene an average of four minutes quicker than EMS. It is believed that the addition of police AED capabilities may help improve survival rates from sudden cardiac arrest.
the rate of survival from cardiac arrest in Indiana, which is close to the national average of less than five percent. In other parts of the country with similar programs, survival rates of 30 to 45 percent have been achieved. According to William Groh, MD, principal investigator of the PARADE study, the Delaware County case clearly demonstrates the importance of early defibrillation for victims of cardiac arrest. "If it were not for the prompt response of the Delaware County Police Department and the use of the AED, this patient would probably not be alive today," said Groh.

The PARADE trial is supported by the Asmund S. Laerdal Foundation for Acute Medicine, the Medtronic Foundation Heart/Rescue Program, Guidant Corporation, Laerdal Medical Corporation, Physio-Control Corporation, Heartstream and SurvivaLink Corporation. For more information about the PARADE study or how to participate, contact Mary Newman, research coordinator at 317-630-7145.

# # #
IU Studies New Drugs For Parkinson's Disease

INDIANAPOLIS -- Patients diagnosed with Parkinson's disease may be eligible to participate in one of two separate controlled clinical trials for new drug therapies.

One of the studies will focus on patients in the early stages of Parkinson's disease. It is part of a nation wide research project in which Indiana University School of Medicine is one of 27 U.S. medical centers enrolling patients for the study. At IU the study will be directed by Joanne Wojcieszek, MD.

Patients eligible for this study are those who have early stages of Parkinson's disease and are not currently taking levodopa, dopamine agonists, selegiline (eldepryl or deprenyl), or serotonin-like drugs (e.g., antidepressants such as Prozac, Zoloft, Paxil). Patients taking other medications may be eligible.

The second study, directed by Eric Siemers, MD, will focus on therapies that affect both the motor and cognitive deficits. Patients eligible for this study are those who have been diagnosed with Parkinson's disease but are otherwise healthy or have stable medical conditions. Patients must be at least 40 years old and using birth control unless post-menopausal or sterile. Patients also must not currently be taking any medications for the disease and have not had brain surgery for Parkinson's disease.

There is no cost to those who participate in the studies. Persons in driving range of Indianapolis who are interested in participating in either trial can call the research nurse, JoAnn Belden, LPN, at 317-278-0868.

Send to: I.U. School of Medicine
Office of Public & Media Relations

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IU Arthritis Researchers Seeking Patients For Study of Knee Osteoarthritis

February 5, 1998

INDIANAPOLIS -- Arthritis researchers at Indiana University School of Medicine are seeking adults to participate in a study looking at the progression of knee osteoarthritis.

Knee pain and the deterioration of joint cartilage in knee osteoarthritis are the major cause of chronic disability in older people in the United States. The I.U. study, funded by the National Institutes of Health, will use highly sophisticated x-ray techniques to measure the thickness of cartilage in the knees.

Men and women, age 45 and older, are eligible to participate in the study. Qualified participants must have been diagnosed with knee osteoarthritis, but the knee osteoarthritis must not be the result of a previous knee injury. Individuals also must not have had prior knee surgery.

Study procedures include x-ray examinations and blood and urine samples. Questionnaires about health status, knee pain and function also must be completed. Participants must be willing to come to the IU Medical Center for x-ray and other examinations three times over a 30-month period. Radiation exposure from the x-rays in this study is well within approved safety limits.

All testing in the study will be free of charge and participants will be paid. Inclusion in the study will not interfere with the care patients receive from their regular physicians for osteoarthritis and other medical conditions.

For additional information or to enroll in the study, please call Jan Surber at 317-278-3971.

# # #

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MEDIA ADVISORY:
OLYMPIC ATHLETES AND DRUGS

INDIANAPOLIS-- One of the two drug analysis laboratories sanctioned by the International Olympic Committee and the U.S. Olympic Committee is located at the Indiana University School of Medicine. Established in 1984, the Indiana University Drug Analysis Laboratory For Athletic Drug Testing and Toxicology has tested countless samples from amateur athletes for pre-Olympic and Olympic events.

Larry D. Bowers, Ph.D., professor of pathology and laboratory medicine and director of the IU Drug Analysis Laboratory, is available for interviews related to background information and explanation of drug testing results and testing policy during the 1998 Winter Olympics. Dr. Bowers was deputy director of the testing laboratory at the Atlanta Olympics.

To reach Dr. Bowers, please contact the IU School of Medicine Public and Media Relations at 317-274-7722 or e-mail mhardin@iupui.edu.

# # #

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Office of Public & Media Relations

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IU Researchers Confirm Best Treatment For Long-Term Testicular Cancer Survival

INDIANAPOLIS-- Observing long term survival rates, researchers at Indiana University School of Medicine have reconfirmed the conclusions of a groundbreaking 10-year-old study which originally compared the effectiveness of two protocols for chemotherapy in the treatment of testicular cancer. The long-term follow-up study determined that survival rates for testicular cancer patients remained equal whether they received three or four cycles of chemotherapy.

The findings are reported in the February issue of the Journal of Clinical Oncology.

Researchers, lead by Scott Saxman, M.D., assistant professor of medicine at the IU School of Medicine, looked at the survival rates of men who had been enrolled in a testicular cancer study in the mid-1980s to see if the original conclusions held true a decade after their treatment. All the men in the follow-up study were originally treated at I.U.

"What we wanted to determine with the long-term follow up was the percentage of patients actually cured and whether three cycles of chemotherapy were as effective as four," said Dr. Saxman. "Ninety percent of patients remain alive and cancer free with an average follow-up of 10 years. There is no difference in survival between the patients who received three cycles of chemotherapy as compared to those who got four."

Data from the earlier study had shown that three cycles of a specific combination chemotherapy were just as effective and less toxic to patients with testicular cancer than the same combination therapy administered in four cycles. The study was conducted from October 1984 to June 1987. The original study determined that the fourth cycle of bleomycin, etoposide and cisplatin (BEP) could be deleted, significantly reducing cost, toxicity and patient inconvenience without sacrificing therapeutic efficacy or survival.

At the time of the original study, patients had a minimum follow-up of 12 months and a median follow-up of 19 months.

The BEP chemotherapy regimen was pioneered at the I.U. School of Medicine by oncologist Lawrence H. Einhorn, M.D., distinguished professor of medicine. That protocol, along with a surgical procedure also developed at I.U. by John Donahue, M. D., distinguished professor emeritus of urology, dramatically advanced the treatment outcome for patients with testicular cancer. Nearly 20 years after its development, BEP remains the standard therapy for testicular cancer. If caught in time and treated with BEP, testicular cancer is highly curable. Before BEP therapy was introduced, the cure rate in patients with advanced disease was less than 10 percent.

Testicular cancer accounts for only about 1 percent of all malignancies in males, but
is the most common solid tumor occurring in men between the ages of 15 and 35.

The follow-up study was supported in part by the National Cancer Institute and the Walther Cancer Institute.

Most recently, testicular cancer made headlines when Olympians Scott Hamilton and Lance Armstrong were diagnosed and successfully treated for the disease.

# # #

Send to: I.U. School of Medicine
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INDIANAPOLIS -- William W. Baldwin, Ph.D., has been named acting director of the Indiana University School of Medicine's Northwest Center for Medical Education in Gary. He replaces Panayotis Iatridis, M.D., D.Sc., who retired on December 31, 1997. Dr. Iatridis had served as director since 1975 and as assistant dean since 1979.

Dr. Baldwin is a professor of microbiology and immunology. He joined the faculty of the Northwest Center in 1973 and received his Ph.D. from the IU School of Medicine in 1974. He is the course director for the medical microbiology and immunology and biostatistics courses, and assisted in establishing a clinical virology laboratory at the Center.

Dr. Iatridis will remain at the Northwest Center as a professor of medicine and course director for Intro. to Medicine.

A search committee is currently reviewing candidates for the directorship of the Northwest Center.

The Northwest Center, located on the IU Northwest campus, is one of eight regional medical education centers around the state where first- and second-year medical students are taught. Students then transfer to the main IU School of Medicine campus in Indianapolis for their third- and fourth-years of medical school. Faculty at the Northwest Center also conduct basic science research.

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New England Journal of Medicine

INDIANAPOLIS -- Adults and children suffering from kidney failure now have a better chance for a successful transplant because of a drug tested by researchers at the Indiana University School of Medicine. The full research report will appear in the January 15 edition of the New England Journal of Medicine.

The monoclonal antibody called Zenapax blocks immune cells from attacking the new kidney during the first eight weeks after transplant, which is the riskiest period for organ rejection to occur. Zenapax is administered together with standard anti-rejection drugs. One of its best features is that it causes no additional side effects, even with increased dosage, a common problem with most anti-rejection drugs. Since anti-rejection drugs suppress the body's immune system so it won't attack the new organ, patients are vulnerable to severe infections and serious side effects.

IU Associate Professor of Surgery and Microbiology/Immunology Mark Pescovitz, MD, and his team were the lead pediatric research group on the Zenapax trial. “The great thing about Zenapax is that it is programmed to attack very specific cells during a critical time,” says Dr. Pescovitz. Patients only take Zenapax during the first eight weeks after transplant and the effect lasts for 12 weeks. They must continue to take other anti-rejection drugs for the rest of their lives.

During a six-month study of 260 adult patients, only 22 percent of patients with Zenapax added to the standard drug regimen experienced signs of rejection, compared to 35 percent on standard anti-rejection treatment. Further testing in children is currently underway, but so far the results are excellent. “We saw the same absence of side effects in the children that was noted in adults. The children also were able to leave the hospital sooner,” says Pescovitz. Children who were part of the trial at IU were transplanted at Riley Hospital for Children.

About 38,000 Americans are on a waiting list for kidney transplants. The IU transplant team performs an average of 90-100 kidney transplants per year. Researchers hope that Zenapax will prove to be effective for patients receiving other organs as well. The next clinical trials will test liver and heart transplant patients.

There has been an explosion of clinical research for anti-rejection and anti-viral drugs for transplant patients during the last few years. The IU Transplant Team is one of the major clinical research sites in the United States. It has been involved with the development of seven new drugs during the last five years. Research at IU includes work on an NIH study looking at replacements for the drug prednisone, a common anti-rejection drug that causes many side effects.

# # #
New Transplant Rejection Drug Shows Significant Results; IU Team Leads Pediatric Research

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Annals of Internal Medicine--
COMPUTERS BREAK IMPASSE IN PATIENT-DOCTOR TALKS ABOUT
ADVANCE DIRECTIVES

INDIANAPOLIS -- Advance directives for end-of-life care are a delicate topic to
broach; there are no clear guidelines on when it is best or who should initiate the
conversation, so usually no one does. But a study published in the Jan. 15 issue of
the Annals of Internal Medicine gives physicians a model to follow to prompt the
discussion.

Reporting on a two-year study, Indiana University School of Medicine faculty at
Regenstrief Institute for Health Care found that nearly eight times as many physicians
would address the delicate topic of advance directives* with terminally ill or elderly out-
patients when reminded through the physicians' electronic computer record system.
Without the reminder, only 4 percent of physicians in the study brought up the topic
with patients.

"The study suggests that a highly technical aspect of health care -- computers in
medicine -- has been able to affect something that isn't highly technical but is highly
personal and important -- end-of-life care discussions," says the study's principle
investigator, William Tierney, M.D., professor of medicine at IU School of Medicine,
and senior investigator at Regenstrief Institute and the Roudebush VA Health
Services Research and Development.

The effectiveness of the computer reminders contrasts with the lack of effectiveness
of the Congressional Patient Self-Determination Act (of 1990) and of efforts at
intensive patient education, both of which have had little or no effect," the authors
state in the article.

Other research has shown that both patients and physicians believe advance
directives to be important, but there apparently is a gap in communication as to who
should initiate the conversation.

"Our reminders broke the impasse. Doctors initiated discussions in response to the
reminders and the patients were appreciative," says Dr. Tierney.

Study participants included 147 primary care physicians and 1,009 patients from the
Regenstrief Health Center of Wishard Health Services who were over the age of 75 or
who were age 50 and older with a serious illness. Twenty-four percent of the
physicians who received computer generated reminders went on to discuss end-of-life
care decisions with their patients. And, half of the patients who had discussions of this
nature with their physician completed an advance directive.

Reasons physicians would not have initiated the discussion with patients include time
constraints, the patient being too ill, reluctance on the part of the patient to discuss
such issues, or a lack of belief in advance directives by the physician.
Researchers say they believe the key to the high rate of discussion and completion of advance directives was that the discussion occurred during regularly scheduled primary care visits when patients were not acutely ill and were visiting a physician they knew and trusted.

Dr. Tierney hopes the study may provide an impetus for physicians to discuss advance directives with patients and reduce the number of end-of-life decisions that are made without patient involvement.

This $750,000 study was funded by the Agency for Health Care Policy and Research, a division of the U.S. Department of Health and Human Services. IU faculty who are scientists at Regenstrief Institute for Health Care are national leaders in the research and development of computers as resources in the improvement of medical care.

* Advance directives are official medical documents that help patients direct their health care if they are seriously ill and unable to make their wishes known.
INDIANAPOLIS -- An $8.5 million grant made in December to the Indiana University School of Medicine ensures that research into the genetic determinants of alcohol use and alcoholism remains at the forefront of medical science at IU.

The five-year award is from the National Institute of Alcohol Abuse and Alcoholism (NIAAA), a research institute within the National Institutes of Health. It continues the work of researchers in the Indiana Alcohol Research Center, initiated in 1987 by Ting-Kai Li, M.D., associate dean of research and distinguished professor of medicine and of biochemistry and molecular biology at the IU School of Medicine.

For the past 10 years, research in alcoholism and alcohol-related illnesses and behavior has been pioneered by IU investigators who have examined the association of alcohol and aldehyde dehydrogenase polymorphism to alcoholism and its complications, as well as the heritability, sensitivity and repeatability of a variety of response to ethanol in humans. They are studying subjective sensations and brain activity in subjects who do and don't have family histories of alcoholism. Twin and siblings will continue to participate in studies to determine the genetic basis for alcohol-related personality and temperament traits.

IARC Director T.K. Li and Lawrence Lumeng, M.D., professor of medicine and of biochemistry and molecular biology, have developed rodent models that have either a preference or nonpreference for alcohol. IARC Scientific Co-directors David W. Crabb, M.D., professor of medicine and of biochemistry and molecular biology, and Richard J. Rose, Ph.D., professor of psychology and adjunct professor of biochemistry and molecular biology, together with Lucinda Carr, Ph.D., professor of medicine and of pharmacology and toxicology, and Howard Edenberg, Ph.D., professor of biochemistry and molecular biology, have focused their work on identifying genes underlying alcohol-seeking behaviors, alcohol abuse and alcoholism in both human and rodent models.

The IARC at the IU School of Medicine was established in 1987 with a $5 million grant from the National Institute of Alcohol Abuse and Alcoholism.

# # #
Five-Year Grant Received For Continuation of Alcohol Research at IU School of Medicine
INDIANAPOLIS -- The Indiana University Diabetes Research and Training Center, first funded in 1977, has received $6 million to carry it into the 21st century.

The grant which originally established the center has been renewed for another five years. The funding comes from the National Institute of Diabetes and Digestive and Kidney Disease at the National Institutes of Health.

Charles M. Clark, Jr., M.D., professor of medicine and director of the Diabetes Research and Training Center at the IU School of Medicine and associate chief of staff for research and development at the Roudebush VA Medical Center, said IU's Diabetes Research and Training Center is one of six in the nation. The Indiana University DRTC is a multi-disciplinary center involved in many areas of diabetes research and with clinical training.

An estimated 16 million Americans have diabetes but only half have been diagnosed with the disease. Diabetes is the leading cause of adult onset blindness, lower extremity amputations and end-stage kidney disease.

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