102 WSU Faculty Members Named Best Doctors

Congratulations to WSU faculty named to the Best Doctors in America, which recognized physicians for outstanding clinical care.

Medical Students Move On After Match Day 2004

On March 18 (Match Day), students at the WSU School of Medicine were among more than 25,000 U.S. medical students who simultaneously participated in the annual National Resident Matching Program. This program matches the preferences of applicants with the preferences of residency programs in order to fill the available training positions at U.S. teaching hospitals.

School Software Developer Is Finalist In Microsoft Competition

Ryan Blackwell’s electronic medical records software has been judged among Microsoft’s top three application development systems, along with competitors Verizon and United Technologies. The Women, Infant and Neo-Natal Database, or WIND for short, is now perinatal electronic medical records database in the entire Detroit Medical Center for maternal-fetal patients.

Helping Parents Support Children Through Cancer Pain

With nearly $1 million from the National Cancer Institute, Terrance (Teri) Albrecht, Ph.D, and several other co-investigators at Karmanos and Children’s Hospital are studying “Parental Roles in Pediatric Cancer Pain and Survivorship.” Dr. Albrecht is trying to determine why some children become extremely upset during painful procedures, while others calmly squeeze a parent’s hand, and still others manage to sleep.

Sparing Fertility for Women with Cervical Cancer

Historically, the standard of care for invasive cervical cancer has always included either radiation or a hysterectomy, something that was not compatible with fertility. Now, a new surgical procedure, called radical trachelectomy, is providing hope to women who otherwise would be unable to bear a child after cancer treatment.

Brains of Chimps and Humans Closely Related In Gene Expression, Say Wayne State Researchers

A genome-wide analysis of gene expression profiles in the brain provides further evidence that chimpanzees are more like humans than gorillas, demonstrating that chimpanzees are the evolutionary sister group of humans, according to a March 2 article published in the Proceedings of the National Academy of Sciences by Dr. Morris Goodman and his research team.

Imaging Regeneration of Neurons In the Brain

Thomas Mangner, Ph.D., WSU associate professor of radiology, is trying to learn more about neurogenesis by looking at certain biochemical processes in the brain which occur during neuronal regeneration.

Chemoreflex Response May Lead to Central Apnea

Jason Mateika, Ph.D., associate professor of internal medicine and physiology, studies sleep apnea and has just published findings in the March 2004 issue of the Journal of Applied Physiology showing that the chemoreflex response may lead to central apnea.

Curing Opioid Dependence with Anti-Addiction Medications, Alternative Rewards

Armed with more than $1.7 million in research funding, Mark Greenwald, Ph.D., is helping heroin-dependent people cope with their addiction by investigating new medication interventions and behavioral incentives that might help them kick the habit.

Bacteria Studied In Vaginosis

A two-year grant from the Johnson & Johnson corporation will allow Robert Akins, Ph.D., and Jack Sobel, M.D., to study bacterial vaginosis.

PRB Research Aids Mothers and Babies

The following research studies were presented and published at last year’s annual meeting of the Central Association of Obstetricians and Gynecologists. The research by WSU fellows and faculty members through the Perinatology Research Branch of the National Institute of Child Health and Human Development located at WSU represents a sampling of projects underway to improve the health of mothers and their children.

New Members Welcomed to Board of Visitors

The Wayne State University School of Medicine welcomes four new members to its Board of Visitors: Karen Batchelor, Walter Douglas, Mariam Noland and Howard Sims.

Dr. Prasad Honored Twice By Indo-American Community

Ananda Prasad, M.D., Ph.D., distinguished professor of internal medicine and renowned zinc expert, has been honored with two awards of achievement as an immigrant hero and leader in Detroit’s Indian community.

School of Medicine Recognizes Excellence In Student Research

Congratulations to the winners of the 14th annual Medical Student Research Symposium held in January.

Enhancement Funding Awarded to Visual Sciences Program

The Department of Anatomy and Cell Biology and its research partner, the Department of Ophthalmology (Visual Sciences Program), were recognized with a 2004 Graduate Program Enhancement Award from WSU.

Letter From the Dean

Honors
Notes
Rounds
Continuing Medical Education
One hundred and two Wayne State University School of Medicine faculty members were named to the Best Doctors in America® list in an annual peer-review survey of 35,000 physicians. The list is compiled by Best Doctors®, Inc., a respected company dedicated to keeping consumers informed about the best medical care available to them.

The survey asked, “If you or a loved one needed a doctor in your specialty, to whom would you refer them?” The results of the survey showed that WSU School of Medicine physicians in various fields are considered the best in their field. “This recognition is indicative of the School of Medicine’s highest standards for clinical care,” said John Crissman, M.D., dean of the WSU School of Medicine. “It also reflects our faculty’s technical excellence and dedication to the health of their patients. We have many outstanding physicians, even many not included on this list.”

The Best Doctors in America® is a national listing of physicians that serves as a vital resource to thousands of patients throughout the United States and across the world. The list represents the top five percent of doctors in more than 400 specialties of medicine. The doctors who make this prestigious list earn the consensus support of their peers. For more information about Best Doctors®, Inc., visit www.bestdoctors.com.
As I reported to our faculty and staff in February at my State of the School address, our outlook at the School of Medicine is positive and our success over the past year is something to be proud of. We have made key leadership appointments, built our reputation for excellence in education and clinical care, and our faculty members have made significant research contributions in many fields. We have expanded programs in our strategic areas of excellence and we are responding to the financial challenges that face all academic medical centers at this point in history.

First and foremost, we continue to demonstrate the remarkable importance of the school as a regional resource. Wayne State University ranks first in the nation for the number of graduates who plan to stay in state to practice. Furthermore, nearly half of all practicing physicians in the metro Detroit area received all or part of their training at WSU, and there are many graduates caring for patients in nearly every county in Michigan. The impact of the WSU School of Medicine stretches across the entire state.

The school’s faculty physician group continues to serve as a premier regional resource for highly-specialized care, while continuing to serve as the primary provider of “safety net” care to the under and uninsured members of the Detroit community. Proposals by the Detroit-Wayne County Health Authority hope to increase Medicaid payments to the Detroit Medical Center (DMC), the primary provider of unreimbursed care in the area, thereby ensuring resources for those WSU/DMC physicians providing the core safety net for the needy. The authority’s recommendations are still under discussion at this time.

As Dr. Robert Frank reported at the State of the School, great strides have also been made in education. There has been a steady increase in the number of applications to the school, 14 new full-tuition scholarships have been secured, student mentoring and international programs are proving to be successful and a vision has been laid out for the establishment of an Education Commons—a $25 million building that will be connected to Scott Hall and will serve as an educational resource facility for students, alumni and affiliated physicians within the state. More information is sure to follow as the funding for this state-of-the-art facility will be generated through the philanthropic generosity of alumni and friends.

A record number of research proposals were processed at the School of Medicine this past year as evidence of superior faculty research and funding efforts. And steadily growing is the school’s “honor roll” which includes faculty members who’ve attracted multiple peer-reviewed grants. Our strategic focus areas—cancer, neurosciences, and maternal and child health—promise to attract big funding, recruit new researchers and provide important discoveries that will improve the health of citizens across the city, state and country.

Finally, we are proud of our ability to preserve our academic mission, even in the face of financial cuts and global challenges. We will continue to uphold our ideals and make the Wayne State University School of Medicine an indisputable resource for this community.

Sincerely,

John Crissman, M.D.
Dean, Wayne State University
School of Medicine
Medical Students Move On After Match Day 2004

“You may now open your envelopes,” was the signal that WSU medical students waited for before ripping open the sealed letters that revealed where they matched for residency training. On March 18 (Match Day), students at the WSU School of Medicine were among more than 25,000 U.S. medical students who simultaneously participated in the annual National Resident Matching Program. This program matches the preferences of applicants with the preferences of residency programs in order to fill the available training positions at U.S. teaching hospitals.

John Bahling successfully matched to his first choice program: the University of California, San Francisco. Offering their support at the Match Day events were his proud mother, a classmate and long-time friend Josh Dilworth who is part of the M.D./Ph.D. program and will participate in the match in a couple years, and sister Andrea who has decided to move with her brother to San Francisco for some sunnier scenery.

Student Aaron Garrison has many big changes in store this summer, as well. He and his fiancée Andrea are getting married in May and moving to North Carolina in June, so he can begin his surgery residency at the University of North Carolina at Chapel Hill. Garrison also won the Junior Scholarship Award in Surgery and plans to be a pediatric surgeon. He says he is delighted about his match results.

The WSU class of 2004 fared very well, with 95 percent of the class successfully matching to open positions. The national match rate was 92.9 percent. The most popular specialties were internal medicine with 50 students, emergency medicine with 33 students, and anesthesia, pediatrics, and surgery among the next most popular choices.

True to the school’s mission to serve the community, more than half the class will remain in southeastern Michigan to practice. Forty five graduates will join WSU/Detroit Medical Center residency programs, 22 will practice at Beaumont and 17 will join the Henry Ford Health System. Many others will serve various medical centers throughout the state.

Prestigious out-of-state placements include Baylor, Emory, the Mayo Clinic, University of Pittsburgh and Yale, to name a few.

Aaron Garrison accepts the Junior Scholarship Award in Surgery from Dr. Christopher Steffes.

Agatha Obertynski will begin her residency in ophthalmology at the Kresge Eye Institute (KEI) after a transitional year at the St. John Hospital and Medical Center in Detroit. She will join her brother, Tom, (pictured at right) who begins his residency at KEI this summer, and her mother, Hanna, who is a clinical instructor there. Eventually, Agatha and Tom hope to join their mother in her private practice in Dearborn.

Bilal Kanaan was honored with the Penfil Award by his classmates who consider him an outstanding clinician. According to one person who nominated him: “There is no better student, no smarter student, no more caring student.”

In eager anticipation, some students hold their letters up to the light, trying to catch a peek at their residency match results.

Dr. Kerin Black presented a Penfil Award to Jerry Brewer for outstanding patient care. As one classmate jokingly said, “I hate to give him another award, but he deserves it.”
School Software Developer Is Finalist In Microsoft Competition

It began with 14,000. That was the number of entries in Microsoft's 2002 Application Development Competition. That number eventually was whittled down to 100. Then to 10. It now stands at three.

Three finalists: Verizon Communications ($67 billion in annual revenue, employer of 230,000 people worldwide); United Technologies, Inc. ($30 billion in sales in 2002, employer of 155,000 people worldwide); and Ryan Blackwell, chief technology officer in the informatics division of Wayne State's Department of Obstetrics and Gynecology.

And while the other two finalists are rolling out their products with great fanfare and the help of things like public relations companies to prepare their presentations, there's no need for that with Blackwell's entry into the competition. It's been up and running for quite a while, and it's all on the Web.

It's called the Women, Infant and Neo-Natal Database, or the WIND for short, and it is now the recognized perinatal electronic medical records database in the entire Detroit Medical Center for maternal-fetal patients.

So powerful is this Internet-based software application that all the clinical variables of a patient's pregnancy, from prenatal care all the way to delivery and post delivery, can be housed in the database, including multi-media data such as ultrasounds, pathology images, fetal magnetic resonance images (MRI) and the like. It has eliminated the burden of manually tracking patient records and information from paper files, from primary care physician to specialists and sub-specialists.

"There were niche applications that would collect information in a sub-specialized manner, parts of the pregnancy, but never the whole," said Blackwell. "We needed the full pie and not just the pieces. We had to come up with a custom solution. And although there were other Web-based deployments, they tended to gather information that was more pertinent for billing and scheduling."

The raw data is captured by the medical staff — the clinicians and the researchers — through various data entry ports worldwide. All of that information gets automatically linked to the patient information. "Since you're capturing all of the data in one location, it's all going to be relational," said Blackwell. "And since the media is available to you linked, you're able to do the full breadth of research, from things that occurred with the patient before they were pregnant to the outcome-based condition of the newborn."

That was the original goal: Simply to establish a database application that collected information from the start to the end of the pregnancy. The WIND does that, but also tracks users and patients, utilizes investigational tools, and has third-party communication capability to deliver content to people's emails, cell phones and pagers.

Blackwell doesn't have a medical education. As a software developer and network administrator, he needed the input of the medical community to tell him what was needed in the WIND. "One of the most important aspects of developing software for health care is getting the medical community to define the technology instead of the technical people defining the technology for the medical personnel," he said.

That was accomplished for the WIND primarily through the efforts of Blackwell's brother, Sean, assistant professor of obstetrics and gynecology. Since then, the WIND has become normalized enough to meet other subspecialty needs, like radiology, internal medicine, emergency medicine, etc. It's also component-oriented so one can plug in or unplug a health care module as seen fit without affecting the whole database.

"With high-level imaging like 3-D and 4-D ultrasounds, we have the ability to see an abnormality very early in the pregnancy, and we can look at all the data that went along with it, like how reactive the baby was during the ultrasound, its Doppler measurements, and then when it delivered whether it had meconium or not, for example," said Ryan Blackwell. "It's one thing to say that a patient has pre-term labor, but a researcher will want to know all of the conditions that led up to that pre-term labor or the diagnosis."

The WIND also was relatively inexpensive to deploy. "It's really a Web server, a couple database servers and reporting servers, and then some redundancies built in, which most IT operations have anyway," Blackwell said.

Those redundancies include backup hard drives, power supply and firewalls. It's technically bundled where it can be dropped on a server with relative ease and can be deployed at a site in about three days.

In fact, the most common question Blackwell gets when he presents the WIND at medical conferences is "How soon? How much?" But Blackwell says there's more work to do before the WIND is marketed to other niches or institutions. "We've benchmarked it. We want to be able to database so many pregnancies, say 8,000 pregnancies, before we've proven it as a technology," he said.

A decision on the winner of the competition is expected within the next few months.
More and more children are surviving cancer, but it’s still a frightening and traumatic experience for the entire family,” said Terrance (Teri) Albrecht, Ph.D. “We are trying to understand the range of reactions experienced by children and their parents to determine the best strategies to help them cope.”

With nearly $1 million from the National Cancer Institute, Dr. Albrecht, together with Louis Penner, Ph.D., and several other co-investigators at Karmanos and Children’s Hospital, is studying “Parental Roles in Pediatric Cancer Pain and Survivorship.” Lumbar punctures, bone marrow aspirations and port starts are painful procedures for children with cancer. Dr. Albrecht is trying to determine why some children become extremely upset during the procedures, while others calmly squeeze a parent’s hand, and still others manage to sleep. She suspects it has much to do with the physiological make-up and personal attributes of the child, but is also interested in the attitudes and behaviors of the parents and the nature of the child-caretaker relationship.

“We know that the best cases involve parents who are able to maintain control during painful and stressful moments with their children. We don’t yet have evidence about various personality traits within the family and how those traits affect a child’s affective and behavioral reactions to painful treatments. Also, we need to understand the medical consequences of those reactions,” Dr. Albrecht said.

The research team will interview 150 children undergoing cancer treatment and their primary caretaker prior to the scheduled procedure (lumbar puncture, bone marrow aspiration or port start).

General reactions to stressors will be reported as families prepare. The procedure and the interaction among the children, parents and hospital staff will be videotaped for analysis. Finally, saliva samples will be drawn from the children and parents to measure cortisol (which indicates stress levels) and spinal fluid and/or blood samples that are drawn from the children as part of their treatment will be analyzed for chemical activity related to mood, emotion, arousal, attention and stress.

“Doctors and nurses are not sure how to best advise parents to prepare their children for these events. There is scattered evidence that says distraction is helpful, for example, but until we have empirical evidence about how a child and parent are affected by their range of reactions, it’s difficult to counsel. We’d like to recommend optimal interventions to help parents and the children overcome,” she said.

Dr. Albrecht is a professor of family medicine at WSU, the leader of the Communication and Behavioral Oncology Program at the Barbara Ann Karmanos Cancer Institute, and an expert in health communications. She is also working on related biopsychosocial research regarding how social and biological functioning affects cancer patients’ reactions and behaviors. Factors that mimic post-traumatic stress disorder may be a function of the brain’s hard-wiring that may escalate patients’ frustration and fear and lead to poor medical outcomes. ■

Dr. Albrecht is learning more about optimal interventions to help parents and children cope with painful and scary medical procedures.
Historically, the standard of care for invasive cervical cancer has always included either radiation or a hysterectomy, something that was not compatible with fertility. Now, a new surgical procedure for the treatment of the disease is providing hope to women who otherwise would be unable to bear a child.

The fertility sparing procedure, called radical trachelectomy, consists of removing the cervix, the surrounding tissue and the lymph nodes, and reattaching the bottom portion of the uterus to the vagina. “In the past we used to take the whole body of the uterus. Now, the idea is to take just the area involved with the cancer and preserve the body of the uterus,” said Adnan Munkarah, M.D., associate professor of obstetrics and gynecology. “As with other surgeries and other cancers, we are moving from being very radical to being less radical, with quality of life and preservation of organ function being important.”

Fertility sparing is a procedure first described in Europe about 10-15 years ago, and the number of published cases in literature is only around 200. Since the technique and outcomes are in evolution, it is only offered in select centers around the country. Dr. Robert Morris, M.D., associate professor of obstetrics and gynecology, and co-surgeon Dr. Adnan Munkarah have performed the only two successful fertility sparing operations in Michigan in the past year. Each of the two patients has an intact uterus, though neither has become pregnant yet.

“There are strict criteria for this treatment,” Dr. Munkarah said. “You’re looking at women who have an invasive stage 1 cervical cancer, however it is small enough and early enough that you can clear the cancer easily by just taking the neck of the cervix without having to take any part of the uterus.” According to Dr. Morris, the few fertility sparing cases that have been done were limited to patients with either micro-invasive cancer or cancer that was less than 4 cm. in total size. “Small enough that the cancer can be resected with clean margins,” he said. “And this is an option from the get go. This is front-line treatment.”

Once the bottom portion of the uterus is attached to the vagina, a stitch is placed around the lower part of the uterus to narrow it down. “So you have an artificial gate, so that when the woman gets pregnant the baby’s not delivered prematurely,” said Dr. Munkarah.

The potential complications in a pregnancy subsequent to a radical trachelectomy are significant. “When a woman goes through that procedure she needs to understand that, number one, her chance of getting pregnant is definitely decreased from what it would normally be,” said Dr. Munkarah. “And number two, when she gets pregnant she’s going to need to be followed up very, very closely. There is significant risk of premature delivery and premature rupture of the membrane. She might need to be on bed rest. So it’s going to be a high-risk pregnancy.”

All of the pregnancies are delivered C-section to minimize the risk of rupturing the artificial “cervix” created by the surgery. Dr. Morris explained, “When a woman approaches term, the cervix changes. It gets softer and it starts dilating as contractions occur. With a stitch in place, there is a significant risk for uterine rupture as labor progresses. This is the reason why a C-section is indicated to deliver the baby.”

In any given year, 15,000 women in the United States can be expected to contract cervical cancer, and 5,000 will die from the disease, according to Dr. Morris. Those statistics have remained fairly consistent over the last 20 years. Worldwide, the number of women developing cervical cancer is about 500,000 per year, and in many developing nations it is the leading cause of cancer deaths among women, Dr. Morris said.

“The main message to any woman really is: If you detect it early, you can be more conservative.” Dr. Munkarah said, referring to routine exams and pap smears. “If we can pick it up early, we can be doing a conservative surgery versus doing the more radical surgery such as hysterectomy or radiation treatment.”
A genome-wide analysis of gene expression profiles in the brain provides further evidence that chimpanzees are more like humans than gorillas, demonstrating that chimpanzees are the evolutionary sister group of humans.

Wayne State University researchers measured gene expression in the anterior cingulated cortex (ACC) of human, chimpanzee, gorilla and macaque samples. The ACC is a specialized region of the brain’s neocortex that is significantly involved in the regulation of emotional and cognitive behavior. The ACC participates in decision-making and shows increased activity when an individual is engaged in cognitive tasks.

The ACC profiles of chimpanzees are more like the human profiles than the gorilla, according to a March 2 article published in the Proceedings of the National Academy of Sciences (vol. 101, no. 9). Furthermore, histologically, clusters of spindle cell pyramidal neurons occur in the ACC of humans, in lesser numbers in chimpanzees, lesser yet in gorillas, least in orangutans, and not at all in other primates and mammals.

These brain features point to the evolution in the ancestry of humans and chimpanzees of the capacity for cognitive functioning, and support placing chimps and humans on the same branch of the evolutionary family tree. The results challenge old-school evolutionary theorists who still hold that chimps and gorillas are more similar, as would be expected if human cognitive capacities were greatly different from any other animals.

Lead authors on the study are Monica Uddin, Ph.D., and Derek Wildman, Ph.D., both of whom studied under and collaborated with Morris Goodman, Ph.D., distinguished professor in the Wayne State University School of Medicine’s Department of Anatomy and Cell Biology and the Center for Molecular Medicine and Genetics, and member of the National Academy of Sciences.

Dr. Goodman sparked great debate in 1962, when he originally asserted that chimpanzees and gorillas are genetically more closely related to humans than to other apes. Since then, he has shown that to be true through DNA sequencing and gene expression analyses. He advocates an objective classification of primates free of human biases, proposing that all living apes should occupy the family Hominidae (which currently contains only humans), and that both humans and chimpanzees should occupy the genus Homo.

“The most parsimonious phylogenetic tree that can be constructed from our results demonstrates that humans and chimpanzees are closest relatives, not chimpanzees and gorillas. Also, simply in terms of degree of divergence, there are fewer character-state differences between humans and chimpanzees than between chimpanzees and gorillas,” authors said.

Uddin et al. also report that chimpanzees and humans show distinctive patterns of up-regulation in particular genes: those involved in aerobic energy metabolism and those related to neuronal functions. This suggests greater neuronal functional activity and metabolic demand in the brains of chimps than is present in the gorillas or macaques. “The chimpanzee lineage shows at least as much apparent regulatory evolution as does the human lineage,” authors said.

Drs. Derek Wildman and Monica Uddin studied under and collaborated with Dr. Morris Goodman to report that cognitive functioning of chimpanzees is more similar to humans than gorillas.
For years, conventional thought was that after organogenesis, which occurs early in mammalian development, the brain had a finite set of neurons, and when they died through injury or disease, they were gone forever. “It was thought to be that way for decades, but most recent findings show that, in certain areas, neurogenesis does indeed occur in the adult brain,” said Thomas Mangner, Ph.D., WSU associate professor of radiology. He and a team of researchers are now trying to learn more about neurogenesis by actually looking at certain biochemical processes in the brain which occur during neuronal regeneration.

He is using positron emission tomography, or PET, which employs a variety of radioactive tracers to image brain physiology, and is interested in developing new PET tracers that will specifically pick up the synthesis of new neurons. “The long-range applications would be in epilepsy, head trauma, and similar kinds of diseases or injuries where a certain population of the neurons are somehow damaged or killed. In those instances, this neurogenesis process would be expected to occur,” said Dr. Mangner, who is also senior PET chemist at the PET Center in Children’s Hospital. Input from many members of the PET Center research team headed by Dr. Harry Chugani is critical for the success of this project. His immediate research team at the PET Center includes Dafang Wu, M.D., an assistant professor in the Department of Radiology, and Fanrong Mu, Ph.D., a postdoctoral fellow. The U.S. Department of Energy is supporting the project.

The researchers are developing tracers that identify vigorous DNA synthesis, which would occur at the points of neurogenesis, he explained. “One of our classes of tracers includes thymidine analogs, which would theoretically be taken up by these cells and incorporated into the DNA,” he said. Thymidine is one of the four bases that make up DNA. “We’re radio-labeling the analogs with fluorine-18, which is a positron-emitting isotope. Theoretically, the fluorine-18-labelled thymidine analogs would localize in the areas of the brain that are undergoing rapid DNA synthesis, and we would be able to visualize those areas of the brain and quantify them with the PET scanner. That’s the ultimate goal.”

The team is also trying to create two other classes of tracers that will potentially image biochemical markers unique to neurogenesis: one which utilizes radiolabelled precursors to a cell surface polysialylated glycoprotein (PSA-NCAM) that transiently appears only on the surface of newly formed neurons in the brain; and a radiolabelled antibody to Nestin, a predominant marker for neural progenitor cells in the mammalian central nervous system. This antibody is coupled to another antibody which facilitates entry into the brain, he said.

“The whole approach is to synthesize the PET tracers that we have proposed, and then do initial animal testing;” he said. “We have a dedicated, small-animal PET scanner that allows us to see if our tracers do indeed localize in the areas expected to undergo neurogenesis.”

If the tracers work as hoped, they would have a number of human uses, Dr. Mangner said. “For example, they would present a way of determining a patient’s prognosis by establishing whether repair or neurogenesis is happening in certain patients vs. other patients.” The tracers could also be used as a study tool to begin to understand the difference between the two patient groups. “These tracers have the potential to really get at the basic mechanisms involved, as well as the function of neurogenesis in the ultimate outcome of the patient.”

According to Dr. Mangner, neurogenesis can occur in some parts of the brain.
Sleep apnea is more prevalent than most people know. An estimated 4 percent of males and 2 percent of females have the condition, in which they either breathe too shallowly to take in sufficient oxygen or experience repeated, brief breathing stoppages. The result is inadequate respiration, and if left untreated, it can lead to hypertension, cardiovascular disease and sometimes death. Jason Mateika, Ph.D., associate professor of internal medicine and physiology, is studying the condition and has just published findings that were highlighted in the March 2004 issue of the Journal of Applied Physiology.

"People who have obstructive sleep apnea often experience episodes of decreased levels of oxygen and increased levels of carbon dioxide. We were interested in determining whether exposure to these continual episodes leads to changes in the peripheral and central chemoreceptors," explained Dr. Mateika. The chemoreceptors are vital to the body’s physiology, he said. For example, the peripheral chemoreceptors, which respond to decreased oxygen levels, connect to neurons in the brain stem, which travel to motor neurons in the spinal cord and ultimately affect the muscles of respiration, therefore influencing oxygen uptake.

Dr. Mateika collaborated with M. Safwan Badr, M.D., chief of the Division of Pulmonary/Critical Care and Sleep Medicine (PCCSM), on this work along with three other researchers: Chris Mendello, M.D., a fellow in PCCSM, Dany Obeid, M.D., a resident in internal medicine, and Lisa Pierchela, a research assistant at the VA Medical Center.

They mimicked the low-oxygen periods of sleep-apnea patients by creating the same hypoxic conditions in healthy, awake individuals. Using air masks, the researchers subjected the individuals to eight, four-minute episodes of hypoxia separated by five-minute recovery periods breathing ambient air. They then compared the chemoreflex responses before and after episodic hypoxia and discovered a change. "The peripheral chemoreflex response was greater after episodic hypoxia," Dr. Mateika said.

Although Dr. Mateika noted that more research is needed, their findings suggest that the body’s response to low oxygen levels may actually promote apnea, rather than alleviate it. "The implication is that this enhanced peripheral chemoreflex response may eventually lead to the development of what is known as central apnea, which could then lead to obstructive sleep apnea," he said. Obstructive sleep apnea, which is the most common form of the condition, typically occurs when throat muscles relax and block air passage. In central apnea, on the other hand, no obstruction is present. Rather, the respiratory muscles never receive the message from the brain to act. "Ultimately, then, enhancing the peripheral chemoreflex response could contribute to an increased prevalence of obstructive events."

According to Dr. Mateika, the body’s response to low oxygen levels may actually promote apnea, rather than alleviate it.
A med with more than $1.7 million in research funding, Mark Greenwald, Ph.D., is helping heroin-dependent people cope with their addiction by investigating new medication interventions and behavioral incentives that might help them kick the habit.

“Drug abuse is a public health problem that needs to be treated without stigmatizing. I view the problem as a reversible disorder that can be treated through pharmacological and behavioral interventions,” said Dr. Greenwald, associate professor of psychiatry and behavioral neurosciences.

Dr. Greenwald has more than $400,000 as part of a National Institute of Drug Abuse (NIDA) center grant in collaboration with the University of Michigan. This project uses PET (positron emission tomography) imaging and a radiotracer that targets the brain’s opioid receptors responsible for heroin’s rewarding and physical dependence properties.

His own $1.4 million NIDA grant uses a human laboratory model of drug choice to find the right environmental conditions in which non-drug rewards can be effective. Rewards such as money or vouchers may be offered as a drug replacement.

Taken together, these two projects may offer new options, giving drug-users control of their addictive behavior.

**Opioid Dependence—Pharmacological Studies**

The FDA (U.S. Food and Drug Administration) approved the use of buprenorphine as an alternative to methadone for treating opioid dependence in 2002. Researchers like Dr. Greenwald are learning more about how and why buprenorphine works.

According to Dr. Greenwald, buprenorphine enters the brain and binds tenaciously to mu-opioid receptors. He has been able to relate the concentration of the medication at these receptors with the person’s level of opioid withdrawal discomfort. That is, when more receptors are occupied (when the medication concentration is higher), there are fewer withdrawal symptoms and less impulsive desire for heroin.

In addition, he is quantifying the concentration-related effects of the medication by analyzing blood levels, mu-receptor occupancy and duration of buprenorphine at 4, 28, 52 and 76-hour intervals following the last dose.

“We are trying to get a time-action profile of buprenorphine to compare with methadone, the traditional treatment. Methadone has only a 24-hour efficacy. In contrast, relatively high doses of buprenorphine are safe and can have significant benefits for at least two days, and some studies suggest even three or four days. This prolonged action could make treatment more efficient and acceptable for patients and providers,” Dr. Greenwald said.

Buprenorphine, unlike methadone, can now be prescribed through approved family physician offices, reducing the stigma of having to visit an addiction clinic for treatment, and providing a better opportunity to treat the whole person, not just the addiction. For example, the majority of addicted individuals also have co-existing mental health and/or medical problems that require attention.

“As we learn more about the benefits of buprenorphine, we can make it more widely available to drug-users who may need it to overcome their addiction. Heroin use is at increased and unacceptable levels in Detroit and throughout the country. We need to work quickly to get the most effective treatments in the right hands,” he said.

**Opioid Dependence—Behavioral Studies**

In addition to his pharmacological work, Dr. Greenwald is also studying drug-seeking behavior in terms of economic factors and rewards.

For a heroin user, drugs are a frequently consumed commodity, much like food. Economists say things like food are inelastic goods; that is, even if food costs more, people still eat it. Dr. Greenwald is applying the same logic to drug abuse. He is testing the following: If individuals are stabilized with medication and given some control over their own environment, what choices will they make?

Over the next five years, Dr. Greenwald will try to determine if drug-choice in the laboratory can be reduced by high cost of drugs and non-drug rewards like cash, and whether being offered a low-cost opiate alters choice.

In this study, heroin users will be given fixed doses of buprenorphine to stabilize their condition and will participate in several “work sessions” for rewards. In an inpatient setting, participants will make computer key press responses and get “paid” for their hours of work.

On different trials, they can choose to receive money or doses of hydromorphone (Dilaudid®)—a heroin-like opiate that acts upon the same receptors. Then they must work progressively more—that is, the “price” increases—to earn the same amount of drug or money later in the session. In his studies, Dr. Greenwald will also vary the total amounts of drug or money that can be earned, and, in a later study, money will be subtracted as a punishment for each time drug is chosen instead.

“Even though heroin is cheap on the street—about $40-$60 per day for an average dependent user—heroin abusers spend a disproportionately large portion of their time and income on their drug habit. By enriching their environment with non-drug choices and rewards for drug abstinence, we think these behaviors can change. We hope to restore the ability of former addicts to become sensitive to other rewards such as social interaction with family and friends, money to spend on healthy forms of entertainment and achieve stability in their lives,” Dr. Greenwald said.

Of course, drug-users may respond differently to the same treatment interventions, so Dr. Greenwald has applied for a supplemental grant to explore individual differences such as genetic factors that may influence withdrawal symptoms, impulsivity and relapse tendency. “We really need to understand drug addiction in the context of the whole person,” Dr. Greenwald said. “That’s the key to effective treatment.”

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Dr. Greenwald is investigating how buprenorphine works in treating opioid dependence, and he is studying drug-seeking behavior in terms of economic factors and rewards.
Every year, some 10 - 20 million women in the U.S. will walk into their doctor’s office and subsequently be diagnosed with vaginitis. One of the most common forms of the disease is bacterial vaginosis, a condition in which good, protective vaginal bacteria—lactobacilli—are taken over by an unknown force that decimates that population of lactobacilli. By default, pathogenic or bad bacteria that are always present in low numbers flourish and cause the disease, which can result in a number of health risks, including premature delivery, HIV transmission as well as other clinical side effects.

Now, thanks to a two-year grant from the Johnson & Johnson corporation, an understanding of why that occurs will be the focus of a study by Robert Akins, Ph.D., associate professor of biochemistry and molecular biology, and Jack Sobel, M.D., professor of internal medicine and head of the department’s Division of Infectious Diseases.

“The basic bacteriology of what bacterial species are and how they go up and down in population over time is poorly characterized and less well understood than you might imagine,” said Dr. Akins.

“Many bacteria are very fastidious. They grow only in special anaerobic conditions, or they may not grow at all. There may be many unknown species that have never been cultured, and it’s one of the reasons we wanted to take this molecular approach rather than a microbiological approach.”

Dr. Akins will be using preliminary chain reaction (PCR) to look at all species of bacteria as they go up and down in population as well as bacteriophage (viruses that affect bacteria). “In one model we’re looking to find out whether bacteriophage are the cause of the decimation of the lactobacillus,” he said. “In the other model, the question is whether one of the anaerobes—for one reason or another—is able to flourish and directly kill the lactobacillus.”

Dr. Sobel said the study brings to the table cutting edge molecular methodologies that will allow a new approach to try to unravel the cause of bacterial vaginosis, which, to date, has eluded explanation.

It’s an entirely different approach, according to Dr. Sobel. To date, all studies on bacterial vaginosis have been epidemiologic and have been based on pure culture techniques, he said. “We will be using molecular methodologies. The methodology is original; the population is original. We have a clinical research center that sees 1,200 - 1,500 women a year from all over the world.”

Dr. Sobel said that bacterial vaginosis is by far the most common vaginal infection and is responsible for anywhere between 30 and 50 percent of vaginal infections, depending on the patient population.

“There are between 10 and 11 million visits per year to gynecologists for vaginitis in the U.S.,” he said. “That excludes STD (sexually transmitted disease) clinics; that excludes visits to family practitioners, internists, etc. So you’re talking about 10 -20 million cases per year.”
The following research studies were presented and published at last year’s annual meeting of the Central Association of Obstetricians and Gynecologists. The research by WSU fellows and faculty members through the Perinatology Research Branch of the National Institute of Child Health and Human Development located at WSU represents a sampling of projects underway to improve the health of mothers and their children.

Any previous vaginal delivery improves likelihood of future VBAC success
A team led by Israel Hendler, M.D., fellow in maternal fetal medicine at WSU, concluded that a woman can be more assured of the success of a VBAC delivery (vaginal birth after previous cesarean) if she has any prior success with vaginal delivery. For instance, a mother who has her first baby vaginally and her second baby via c-section has improved chances of success for a vaginal delivery with her third child. Any woman who had a normal vaginal delivery at one time is a good candidate for a successful VBAC.

Advanced ultrasound offers advantages in obese mothers
A study led by Dr. Israel Hendler found that standard ultrasound equipment has significant limitations in visualizing the fetal heart in an obese mother. In non-obese patients, advanced ultrasound techniques improves visualization of the fetal heart, but they do not hold a distinct advantage with maternal obesity.

Exposure to in utero meconium could impair long-term learning
An award-winning presentation by Sean Blackwell, M.D., assistant professor of OB-GYN and medical director of informatics for the Division of Maternal Fetal Medicine, found that laboratory rats exposed to meconium in utero for a prolonged length of time had spatial learning deficits as adults. If a human fetus passes its first stool in utero, there are immediate dangers like the possibility of aspirating the meconium or developing a serious infection. However, Dr. Blackwell offers novel evidence that meconium exposure can affect cognitive development. Although the tests have not been replicated in humans, it alerts doctors to possible dangers and may prompt them to speed delivery and take added precautions if a fetus expels its first stool in the womb.

New factor (sVEGFR-1) plays role in preeclampsia
Preeclampsia (or toxemia) during pregnancy is characterized by hypertension, protein in the urine and/or multiple organ damage. Recent animal and human studies indicate that blockade of VEGF (vascular endothelial growth factor) and PGF (placental growth factor) by administration of sVEGFR-1 (soluble vascular endothelial growth factor receptor-1) could induce clinical manifestations similar to those occurring in preeclampsia, according to Tinnakorn Chaiworapongsa, M.D., newly appointed WSU associate professor of obstetrics and gynecology and National Institutes of Health fellow. This research won him the young investigator award at the meeting.

Shoulder dystocia is more likely if second-stage labor lasts longer than two hours
A team led by Shobha Mehta, M.D., fellow in maternal fetal medicine at WSU, concluded that the risk of shoulder dystocia (the failure of the fetal shoulders to be delivered spontaneously after the head) is increased if the second stage of labor (defined as complete dilation to delivery) lasts longer than two hours. Shoulder dystocia has potential for catastrophic outcomes like hemorrhage or uterine rupture for the mother and bone fractures or hypoxia for the fetus, but the problem is difficult to predict, making it difficult for obstetricians to know whether or not to recommend a c-section. This is particularly true for first-time mothers who have no previous history of large babies or gestational diabetes, the two primary risk factors. This study gives physicians and new mothers added information to make more informed decisions about delivery risks and options.
New Members Welcomed to Board of Visitors

Dr. Prasad Honored Twice By Indo-American Community

In the fall 2003, Dr. Prasad was named to the International Institute of Metro Detroit’s Heritage Hall of Fame for his strong leadership in the medical and the Indo-American communities. The International Institute helps immigrant families adjust to life in southeast Michigan while preserving and celebrating the cultures and traditions they bring. In addition, Dr. Prasad was presented with the Outstanding and Inspiring Leadership Award during the Independence Day of India celebration at the University of Chicago’s International House.

In addition to his notable work in science and medicine, Dr. Prasad is the founding president of the India League of America Michigan, an organization that has helped create better India-U.S. relationships through meaningful dialogue and education with elected state officials since 1976.

Congratulations to Dr. Prasad for his work in bridging understanding and promoting cultural exchanges.

Dr. Prasad accepts his award from the Heritage Hall of Fame.
Michael Bannon, Ph.D., professor of psychiatry and behavioral neurosciences, published “Gene Expression Profile of the Nucleus Accumbens of Human Cocaine Abusers: Evidence for Dysregulation” in the Journal of Neurochemistry. WSU co-authors include: Dawn Albertson, Barb Pruetz, Carl Schmidt, Donald Kahn and Gregory Kapatos.

Errol Crook, M.D., has been named acting chair of internal medicine, replacing Dr. John O’Connell who is taking a leave of absence from his position as chair.

Jeffrey Forman, M.D., professor of radiation oncology, has been named medical director of the Barbara Ann Karmanos Cancer Foundation. In addition, Dr. Forman is leader of the Karmanos Cancer Institute’s Prostate Multidisciplinary Team and medical director of the Lawrence and Idell Weisberg Cancer Treatment Center.

Swati Garekar, M.D., pediatric cardiology fellow-in-training, presented her research, “Real-Time Three Dimensional Echocardiographic Evaluation of Global and Regional Systolic Left Ventricular Function in Young Patients Paced for Congenital Complete Heart Block,” at the 53rd annual scientific session of the American College of Cardiology, held in New Orleans. Her work was mentored by Drs. Kavitha Chintala, Michael Pettersen and Peter Karpawich.

Craig Giroux, Ph.D., assistant professor in the Center for Molecular Medicine and Genetics and obstetrics and gynecology, has been appointed to the scientific advisory board for GeneCo, Inc., a leading national systems biology/bioinformatics company.

David Grignon, M.D., professor and chair of pathology, will serve as vice chair of the WSU School of Medicine’s Council of Clinical Chairs for a two-year term.

Theodore Jones, M.D., associate professor of obstetrics and gynecology, has been named vice president for medical affairs at Hutzel Women’s Hospital.

Peter Karpawich, M.D., professor of pediatrics and director of cardiac electrophysiology at Children’s Hospital of Michigan, has been invited to participate as faculty in the 9th Advanced Didactic Course on Cardiac Pacing to be held in France as part of the International Congress in Cardiac Electrophysiology and Cardiac Techniques.

Dr. David Kessel, Ph.D., professor of pharmacology and internal medicine, has been invited to present plenary talks at meetings of the American Society for Photobiology and the International Conference on Porphyrias and Pthalocyanines this summer.

Stephen Krawetz, Ph.D., professor in obstetrics and gynecology, the Center for Molecular Medicine and Genetics and the Institute for Scientific Computing, published “Chromatin Loops Are Selectively Anchored Using Scaffold/Matrix Attachment Regions” in the journal of Cell Science. WSU co-authors include: Henry Heng, Guo Liu, Joshua Stevens, Steven Bremer and Susan Wykes.

Li Li, Ph.D., associate professor of internal medicine, spoke on “Transcriptional Regulation of Smooth Muscle Gene Expression During Cardiovascular Development” at the Henry Ford Medical Group Distinguished Seminar Series in April.

Robert Lisak, M.D., Parker Webber Chair of Neurology, has been appointed chair of the Public Information Committee of the American Neurological Association (ANA). He is currently a member of the executive council of the ANA and previously served on the program committee and as chair of the membership advisory committee.

David Rosenberg, M.D., professor of psychiatry and behavioral neurosciences, was interviewed in a PBS special program, “No Ordinary Joe,” which focused on depression among teenagers. Dr. Rosenberg says society needs to be more alert to clues that a child may be suffering from depression so that intervention can be invoked.

Maryjean Schenk, M.D., professor and chair of family medicine, will lead the WSU School of Medicine’s Council of Clinical Chairs for a two-year term.

Frank Stasa, III, IT manager in information systems, wrote and published “A History of St. Patrick Church,” which recounts the 150-year history of the Monroe County church.

Prachi Trivedi, Ph.D. candidate in Dr. Robert Swanborg’s laboratory in the Department of Immunology and Microbiology, is an invited participant in the 8th annual meeting of the Society for Natural Immunity in April. She will discuss her research on “Regulation of Rat T Cell Activation by Syngeneic Natural Killer Cells.”

More than a dozen oral presentations by Wayne State medical students highlighted the 14th annual Medical Student Research Symposium in January. Students presented research findings to their peers as well as to a group of distinguished basic science and clinical faculty who volunteered to serve as judges.

The research presented at the annual symposium is conducted as part of the School of Medicine’s summer research fellowship program, which provides stipends for 20 students who spend their summer collaborating with established biomedical researchers.

Noreen Rossi, M.D., professor of internal medicine and staff physician at the John D. Dingell VA Medical Center, and Clement Diglio, Ph.D., associate professor of pathology, are co-directors of the summer research program. They, along with Kenneth Palmer, Ph.D., assistant dean for graduate education, continually stress the value of the fellowship program and the symposium in providing an opportunity for medical students to conduct and present research.

The fellowship program provides a mechanism for students to experience the excitement of medical research, while offering support for students who really want to do research over the summer, but, for financial reasons, may be forced to do something else. The symposium is important because it allows these students to share their research in a collegial setting and recognizes them for their efforts.

In addition to cash prizes for first and second place recognition, the winner in each category will have the opportunity to present his research at the National Student Research Forum in April. The following four students received special recognition for their research presentations:

**Work in Progress:**

1st Place - William Godfrey
*Proton Magnetic Resonance Spectroscopy of Brain Tumors Correlated with Pathology*
Mentor: Alvaro Magalhaes, M.D.

2nd Place - Jason Hallman
*Replication Senescence as a Possible Factor in the Etiology of Inflammatory Bowel Disease and the Adnab-9 Profile of Patients with IBD*
Mentor: Martin Tobi, M.D.

**Completed Work:**

1st Place - Gerald P. Morris
Winner of the Lois and Herschel Sandberg Prize in Biomedical Research
*Signaling through TNFR Superfamily Receptors CD137 and GITR Inhibits the Protective Function of CD4+CD25+ Regulatory T Cells in Induced Tolerance to Experimental Autoimmune Encephalomyelitis*
Mentor: Yichi Kong, Ph.D.

2nd Place - Jamie Johnson
*Erythromycin Inhibits Wear Debris-induced Osteoclastogenesis and Cytokine Production*
Mentor: Paul Woolley, Ph.D.

The shining stars of this year’s Medical Student Research Symposium were: Dr. Noreen Rossi, Jamie Johnson, Jason Hallman, William Godfrey, Gerald Morris, and Dr. Clement Diglio.
Rounds

Dr. Santucci

Vaccine tested for advanced prostate cancer

Richard Santucci, M.D., assistant professor of urology, is the only researcher in Michigan conducting a clinical research trial of an investigational product for metastatic prostate cancer. The vaccine, called Provenge, is designed to trigger a patient’s own immune system to seek out and destroy cancer cells.

Currently, Dr. Santucci is enrolling men in the phase 3 placebo-controlled clinical trial. “This investigational vaccine is designed to use a patient’s own immune system to seek out and destroy cancer cells.”

Exploring relationship between obesity and breast cancer risk in African-American women

New research indicates a possible link between body weight and breast cancer recurrence in African-American women. Results of a three-year weight loss study conducted by Zora Djuric, Ph.D., associate professor of internal medicine, showed that weight loss in obese breast cancer survivors can greatly decrease levels of leptin, a hormone associated with obesity and breast cancer risk. These results have been published in the February 2004 issue of Obesity Research in an article titled “Improvement of Metabolism among Obese Breast Cancer Survivors in Differing Weight Loss Regimens.”

Why the increase in kidney cancer?

This year, 30,000 Americans are expected to be diagnosed with kidney cancer. In fact, Americans are more likely to develop kidney cancer now than they were in the past, and African Americans have even higher kidney cancer rates than other groups.

Wayne State University, the Karmanos Cancer Institute and the National Cancer Institute are working together to learn why kidney cancer rates are rising. Kendra Schwartz, M.D., is directing the study in Detroit. WSU will recruit 2,000 participants by telephone-including people who have been diagnosed with kidney cancer and people who have not. Interviewers will meet with participants to gather data about lifestyle, environmental and other possible risk factors. Participants may supply saliva and blood samples as well if they choose.

This study is the first major effort to examine ethnic disparities in kidney cancer. “It is critical to the success of this study that we have participation from African Americans. We hope people will learn about the study and understand why we’re conducting it. We need them to answer the call and help us fight kidney cancer,” said Dr. Schwartz.

Continuing Medical Education

Medicolegal Investigation of Death

Activity Director: Werner Spitz, M.D.
April 21 - 23, 2004
The Dearborn Inn
Dearborn, Mich.

Advances in the Treatment of Fungal Infections

Activity Director: Jack Sobel, M.D.
April 24, 2004
The Ritz Carlton Hotel
Dearborn, Mich.

Hospitalist Medicine

Activity Director: Taliban Shafi, M.D.
May 12, 2004
The Westin Detroit Metropolitan Airport
Detroit

6th Annual Motor City Diabetes

Activity Director: Todd Leff, Ph.D.
May 13, 2004
Ford Motor Company
Conference & Event Center
Dearborn, Mich.

17th Annual Issues in Aging

Activity Director: Jennifer Menke, Ph.D.
May 26-27, 2004
Management Education Center
Troy, Mich.

New Strategies in Gynecological Practice

Activity Directors: Robert Leach, M.D., and Jay Berman, M.D.
July 16-18, 2004
The Grand Hotel
Mackinac Island, Mich.

4th Annual Update in Internal Medicine

Activity Director: Donald Levine, M.D.
July 30 - August 1, 2004
The Inn at Bay Harbor
Petoskey, Mich.

For more information or to register for conferences, please call Wayne State University’s Division of Continuing Medical Education at (313) 577-1180.
Enhancement Funding Awarded to Visual Sciences Program

The Department of Anatomy and Cell Biology and its research partner, the Department of Ophthalmology (Visual Sciences Program), were recognized by the university as a strategic research area, worthy of a 2004 Graduate Program Enhancement Award. Nancy Barrett, Ph.D., WSU provost and senior vice president for academic affairs, announced that Linda Hazlett, Ph.D., chair of anatomy, is one of three faculty members to receive $250,000 in annual funding to strengthen the research and graduate programs within anatomy and cell biology and ophthalmology, the latter depart-ment chaired by Gary Abrams, M.D.

“To advance graduate education at WSU, we need to sharpen the research focus of some of our best programs and build to our strengths,” Dr. Barrett said. “We want to be among the best in the nation in select areas and provide graduate students with the exceptional training they need to make significant new discoveries.”

A major component of the Visual Science Program is the Core Vision Center grant, based within the anatomy department. This grant (one of only 38 in the U.S.) has provided 21 years of National Institutes of Health (NIH) support to this group of vision scientists and has fostered close alliances with ophthalmology and the Kresge Eye Institute (the largest eye care provider and largest ophthalmology resident training program in Michigan). Drs. Hazlett and Abrams will build on these strengths and form the Vision Research Institute, a center of excellence that will enhance basic, clinical and translational research and provide a unique training opportunity for graduate students who will work on projects that are of clinical significance.

With this enhancement funding, Drs. Hazlett and Abrams plan to recruit two additional graduate students to the program that currently has 15 student slots and takes four new students per year. In addition, they will jointly hire four more faculty members in visual neurosciences to bolster the prestige and productivity of the program.

“With the newly recruited faculty provided by enhancement funding, we will expand the number of laboratories available for graduate training and the number of extramural supported postdoctoral fellows who are also an excellent source of graduate training for these future vision scientists; promote new discoveries and development of novel therapies; attract the best and brightest graduate students, postdoctoral students and clinical fellows for training; enhance the reputation and visibility of WSU in graduate training and in visual sciences; and increase NIH, as well as other extramural and contract supported grant funds,” Dr. Hazlett said.

If you have a story to share, we would love to hear from you. Please contact us at: kweodem@med.wayne.edu

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Unsponsored Honors

Jack Ebright, M.D., associate professor of internal medicine, was a finalist and honoree for the 2003 Humanism in Medicine Award from the Association of American Medical Colleges.

Susan Eggly, Ph.D., internal medicine instructor, received a Women of Wayne research grant to further her research in the area of professionalism in medical education. Her project analyzes the brief essays of 137 first-year medical residents regarding their experience during medical training with the professional and unprofessional behavior of their colleagues and faculty. She hopes to contribute this analysis as part of the increasing focus on developing skills in professional behavior and interpersonal communication among medical trainees.

Elimelech Goldberg, M.D., clinical assistant professor, was awarded the seventh annual McCarty Cancer Foundation Humanitarian Award for making a difference in the lives of cancer patients. Dr. Golberg founded the Birmingham-based organization Kids Kicking Cancer after losing his first child to cancer in 1983.

Jeanne Lusher, M.D., distinguished professor of pediatrics, was honored by Congresswoman Carolyn Kilpatrick and the American Medical Women’s Association as a Local Legend from Michigan. This distinction recognizes women physicians and is a companion project to an exhibition created by the National Library of Medicine titled “Changing the Face of Medicine: Celebrating America’s Women Physicians.”

Charles Schuster, Ph.D., professor and director of the Substance Abuse Research Division of the WSU Department of Psychiatry and Behavioral Neuroscience, will receive the Marwan W. Fishman Memorial Award from Columbian University’s Department of Psychiatry. The award recognizes distinguished scientists in the field of substance abuse whose accomplishments, mentoring and scientific career exemplifies the scientific achievements and generosity of spirit displayed by Marwan Fishman. Dr. Schuster will receive the award and lecture on “The Neurobehavioral Toxicity of Methamphetamine,” on May 14 in New York.