



WAYNE STATE
UNIVERSITY
SCHOOL OF MEDICINE

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John Crissman resigns as dean

Dean John Crissman has stepped down as dean of the School of Medicine, effective Oct. 15. After a professional leave of absence he will return to the faculty as a professor of pathology.

OB/GYN department ranks #1 in country

The Wayne State University School of Medicine's Department of Obstetrics and Gynecology ranked first in research awards by the National Institutes of Health with more than \$16 million in total grants.

WSU study shows combination therapy significantly lowers blood pressure

A WSU study, "Lotrel and Enalapril in African Americans with Diabetes," demonstrates that providing patients with a combination of two highly effective medications in one capsule helps them reach the rigorous blood pressure goal of less than 130/80 mm Hg.

Dr. Krawetz receives funding to establish center of excellence on environment, fertility

A \$1 million, three-year grant from the Michigan Economic Development Corporation will be used to establish a Center of Excellence led by Stephen Krawetz, Ph.D., who is developing an assay that will examine sperm samples to identify if sperm have been affected by OC-organochlorinated compound-exposure.

Dr. Roberts investigates deadly flu virus particles

One viral gene segment may be responsible for elevating the influenza A virus from a temporary ailment into a life-or-death struggle, according to Paul Roberts, Ph.D., WSU assistant professor of immunology and microbiology.

Family physicians need to recognize victims and perpetrators of violence

John Porcerelli, Ph.D., associate professor and director of the Division of Behavioral Science, Department of Family Medicine, has recently published a series of articles in various medical journals detailing his research on psychological characteristics of perpetrators of domestic and other types of violence.

Dr. Rosen receives \$1.7 million NIH grant to study regulation of gene expression by heavy metals

Barry Rosen, Ph.D., professor and chair of the Department of Biochemistry and Molecular Biology, just received a five-year, \$1.7 million grant from the National Institutes of Health to examine how arsenic, antimony, cadmium, lead and other heavy metals regulate the cellular detoxification systems that occur in all living things.

WSU researchers conduct study to aid women with polycystic ovary syndrome in conception

WSU is one of 11 sites across the country studying the two drugs, metformin and clomiphene citrate, in more than 600 women who have polycystic ovary syndrome (PCOS), a condition that can interfere with their ability to have children.

Compound found in vegetables shows promise fighting cancer

Fazul Sarkar, Ph.D., who is studying various anti-cancer benefits of natural foods, has a \$1.2 million grant from the National Institutes of Health (NIH) to learn about a chemical found in such vegetables as broccoli, cabbage and Brussels sprouts.

Patients likely to get flu shot if offered

Study after study has shown that among the older population, African Americans are less likely than whites to receive an influenza immunization every year. A yearlong study led WSU researchers to a simple but effective way to eliminate the disparity between races: Ask every patient if he or she would like the vaccine.

New center to improve spinal cord injury recovery

Wayne State's new Center for Spinal Cord Injury Recovery had already attracted inquiries from more than 400 patients and family members in the two-month period after it opened its doors in June at the Detroit Medical Center's Rehabilitation Institute of Michigan. "There's clearly intense interest out there," said center director Steven Hinderer, M.D.

WSU School of Medicine appoints new chief of vascular surgery

Charles Shanley, M.D., has been appointed chief of the WSU Division of Vascular Surgery. Dr. Shanley, an alumnus of the medical school, also will lead clinical vascular surgery programs at the Detroit Medical Center.

WSU researcher develops groundbreaking method of tumor imaging

Anthony Shields, M.D., Ph.D., WSU professor of internal medicine, believes a newly refined technology, which uses chemically engineered "radio tracers" to track rates of growth in tumors, will soon allow clinicians to speed up their evaluation of drug therapy on cancer cells, giving them a better chance of slowing down or even completely neutralizing the disease in patients. The faster imaging system will also protect patients from the toxic effects of anti-cancer

CMMG fosters urban youth achievement

WSU's Center for Molecular Medicine and Genetics (CMMG) participated in NULITES: the National Urban League Incentives to Excel and Succeed program, hosting 45 high-school students who learned about careers in medicine and biomedical research.

Conference bridges ethical dilemmas

Linda Roth, Ph.D., and Stanley R. Terlecky, Ph.D., were awarded fellowships to attend the 10th Annual Conference on Teaching Survival Skills and Ethics, hosted by the National Institutes of Health. The five-day, "train the trainers" conference prepared faculty and administrators to establish and improve instruction in research ethics and professional development.

Students win research awards for family medicine studies

Medical students Mehul Patel and John Stasko have been recognized with student research awards from the Blue Cross Blue Shield of Michigan Foundation.

Minority Programs Research Day recognizes student efforts

The Wayne State University Minority Programs Research Day held in August featured a showcase of presentations from graduate and undergraduate students. Congratulations to the winners.

Summer programs prepare students for health careers

Summer programs for disadvantaged and minority high school youth, such as the OHEP Scholars Program and the Minority High School Science Education Program (MHSSEP), were successful again this year in cultivating students who are preparing for future careers as researchers and/or health care providers.

Honors

Notes

Rounds

Continuing Medical Education

Dr. Krawetz receives funding to establish center of excellence on environment, fertility

With the formation of a new virtual center, researchers from three institutions are developing an assay that will examine sperm samples to identify if sperm have been affected by OC—organochlorinated compound—exposure. These include PCBs. The research will initially survey anglers who fish the St. Clair and Detroit rivers, two areas designated by the U.S. Environmental Protection Agency as sites of concern.

A \$1 million, three-year grant from the Michigan Economic Development Corporation will be used to establish this Center of Excellence, which is led by Stephen

Krawetz, Ph.D., Charlotte B. Failing Professor of Obstetrics and Gynecology and the Center for Molecular Medicine and Genetics in Wayne State University's School of Medicine. The other participating institutions are Michigan State University and the Van Andel Research Institute.

According to Dr. Krawetz, the center evolved from recent discoveries made in his lab that human spermatozoa not only deliver DNA during fertilization, but messenger RNAs, the part of the genome responsible for making a healthy sperm.

"It then became quite evident to us that these are likely to provide reasonable markers of paternal

insult. So in other words, if something has happened to dad's sperm, either in its creation or storage before it begins the journey to the egg, it should be obvious from the messages it carries," he said. "Now we plan to dovetail this study onto that of Dr. Julia Wirth's, of Michigan State University, and Dr. Michael Diamond's, of Wayne State University, who have been collecting samples from a series of individuals that have been exposed to OCs."

Such exposure is common in Michigan, as 2 million residents and 334,000 non-residents fish in Michigan each year.

"Compared to the OC level viewed as normal, the levels in the

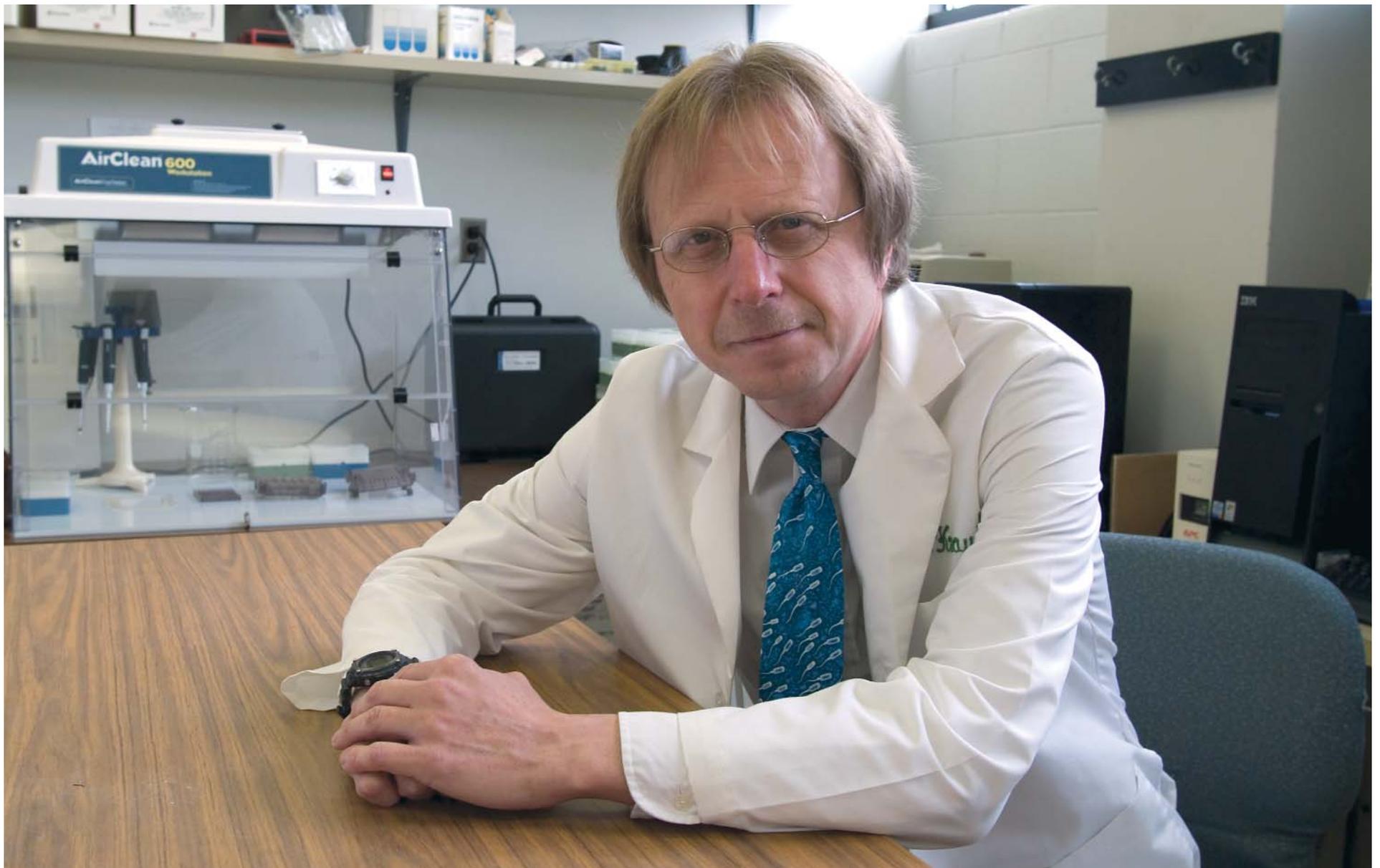
avid fisherman who eats sport caught fish can be as much as 10 times higher. This assay will give us a way to determine whether consumption of the OC-contaminated fish is having an effect on births."

He added, "The hypothesis of this work is this: If one is exposed to an environmental agent that modifies the sperm, this should show up in their sperm RNA profile. Perhaps that person's sperm will not be able to fertilize the egg or the development of that child may be altered."

For couples who are planning a family, the findings may help them decide whether to wait to conceive until the male's sperm is renewed, which occurs every 60 days, and is OC-free. The research will also pro-

vide insight into other contamination events, such as mass exposure to a compound through a terrorist attack or other wide-scale tragedy that might affect spermatogenesis, he said.

"Basically, we're using genetic profiling of RNAs to give us a really good idea of how well the whole process of making a sperm has gone," he said. "Overall, we're looking at this as a way to screen for general fertility. We've invested quite a bit of time identifying what the normal fertile male looks like in terms of his sperm RNA profile. Since half of the cases of infertility are really male-factor-related, this information quickly targets the cause." ■



Dr. Krawetz is trying to determine whether consumption of OC-contaminated fish affects fertility.