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Estrogen research puts focus on cataract therapy

Researchers at Indiana University School of Medicine have shown that optic lens cells may be included among the growing list of parts of the body found to be sensitive to the hormone estrogen.

Lens cells have receptors for estrogen, adding further evidence to epidemiological research showing that estrogen may play a role in preventing cataracts in aging women, the IU research states.

The IU School of Medicine paper was published in the Aug. 3 issue of *Proceedings of the National Academy of Science*.

In the study, researchers removed the ovaries of rats before treating them with methylnitrosourea, a carcinogenic compound that causes breast cancer in laboratory animals, explained Robert M. Bigsby, PhD, associate professor of obstetrics and gynecology, and lead author of the PNAS paper.

The rats were divided into groups that received no estrogen, estradiol (the predominant natural estrogen in pre-menopausal women) or estrone (the predominant natural estrogen in post-menopausal women).

Within six to eight months, 74 percent of the rats receiving no estrogen developed a type of cataract similar to age-related cataracts seen in humans. Only 12 percent of the rats treated with estradiol and 25 percent of those treated with estrone developed cataracts.

"This experimental model gives credence to the epidemiological studies that estrogens are protective against cataracts," said Dr. Bigsby.

Seventy-five percent of people over the age of 75 exhibit some degree of cataracts. It is estimated that more than 50 percent of cases of blindness are caused by cataracts. Age-related cataracts affect more women than men, and one study of women with early onset of menopause showed a 2.9-fold risk of developing cataracts.

"We now have an animal model system that will allow us to determine if the different types of estrogens used in post-menopausal hormone replacement therapy will also prove protective against the development of cataracts," Dr. Bigsby said.

Andrea Caperell-Grant assisted Dr. Bigsby with this research.

BRIEFS

Chu resigns

Joseph Chu, MD, MPH, has resigned as associate dean for student and curricular affairs.

Dr. Chu assumed the associate dean duties in 1998, and his responsibilities also included professorships in medical education, public health and obstetrics and gynecology. A native of Chicago, he received his medical degree from Georgetown University School of Medicine and master's in public health from the University of Washington School of Public Health.

Dr. Chu plans to return to Seattle.

On-line surgery

Anatomy and physiology students at Center Grove High School and Speedway High School will observe gall bladder surgery live thanks to distance learning technology.

David Canal, MD, and Scott Engum, MD, will walk students through the procedure and interact through the videoconference scheduled for Wednesday, Nov. 3.

Sponsors of the "On-line Surgery" program are IUSM, Radiant Communications, Video Images and the Corporation for Educational Communications. IUSM's Medical Educational Resources Program helped organize the program.

Two new chairmen named

Douglas McKeag, MD, has been appointed chairman of the Department of Family Medicine at IUSM.

He assumed his duties Oct. 1.

Dr. McKeag's primary area of interest is sports medicine, where he is nationally known as one of the architects of primary care sports medicine as a sub-specialty of family medicine. He has actively supported and advanced that area for the past 20 years and has published many articles on sports medicine research, including a recent article in the *Journal of the American Medical Association* on the long-term effects of head trauma in athletes. He also is the sports medicine editor for www.drkoop.com - a Web site by former U.S. Surgeon General C. Everett Koop.

Dr. McKeag served as interim chairman of the Division of Family Medicine at the University of Pittsburgh. He was on faculty there beginning in 1995 and held many positions, including director of Primary Care Sports, vice chairman of the Department of Family Medicine and vice chairman of the Department of Orthopaedic Surgery, as well as the Arthur T. Rooney Jr. Endowed Chair of Sports Medicine. He also was on faculty at Michigan State University from 1977 to 1995.

Dr. McKeag received his master's degree in cardiovascular physiology and his medical degree from Michigan State University and received additional training at Presbyterian Hospital, Pacific Medical Center in San Francisco, Grand Rapids Area Medical Education Center and Michigan State University.

John Eble, MD, MBA, is the new chairman of the IUSM Department of Pathology and Laboratory Medicine. He officially assumed the department's top position, Oct. 1, and has served as acting chairman since 1998.

Dr. Eble is chief pathologist for Clarian Health Partners and has been the chief pathologist for Richard L. Roudebush Veterans Affairs Medical Center since 1982.

Dr. Eble, a professor of pathology and laboratory medicine and of experimental oncology, served as associate chairman of the department from 1995 to 1998.

Dr. Eble serves as editor-in-chief of the *Journal of Urologic Pathology* and was guest editor of *Seminars in Diagnostic Pathology* in 1998. He sits on the editorial boards of *Modern Pathology*, *Advances in Anatomic Pathology* and the *American Journal of Surgical Pathology*. He edited the acclaimed textbook, *Urology Surgical Pathology*, which was published in 1997.

Dr. Eble earned his medical degree from IUSM in 1976, and served his residency in pathology from 1977 to 1980 at IU. He also earned a master's in business administration from the IU Graduate School of Business.

November Combined Seminar Series announced

Three speakers are scheduled for the November Combined Seminar Series held Wednesdays from 4 p.m. to 5 p.m. in the IU Cancer Research Institute, room 101. The schedule includes:

Nov. 3 -- Harry Malech, MD, National Institutes of Health " Development of Novel Stem Cell Therapies for Chronic Granulomatous Disease."

Nov. 10 -- Simon Smith, PhD, Chandler Medical Center, University of Kentucky "BRCA Genes and Ovarian Cancer."

Nov. 17 -- Chuxia Deng, PhD, Mammalian Genetics Section, Genetics of Development and Disease Branch, National Institutes of Diabetes, Digestive and Kidney Diseases, "BRCA 1 in Genetic Stability and Tumorigenesis."

There will be no seminars on Nov. 5 or Nov. 24.

'Painless Parker' topic of next JSB lecture

Arden Christen, DDS, MSD, will be the speaker at the Monday, Nov. 8, meeting of the John Shaw Billings History of Medicine Society. The presentation will be at 4 p.m. in the Ruth Lilly Medical Library, room 301.

Dr. Christen's talk is entitled "Painless Parker, 1872-1952: Crusading Dentist."

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