IU-led team earns $3.3 million NIH grant to study HPV, cervical cancer in Kenyan women

Dec. 9, 2014

INDIANAPOLIS -- An international team of oncology research specialists led by Indiana University has been awarded a $3.3 million grant from the National Institutes of Health to study HPV and cervical cancer in Kenyan women with HIV/AIDS.

The grant will enable the researchers to create a sustainable approach to education, clinical care and research, with the goal of providing early detection screenings for human papillomavirus and cervical cancer.

The five-year National Institutes of Health/ National Cancer Institute grant (1U54CA190151) was awarded to the AMPATH-Oncology Institute in Eldoret, Kenya. The three lead scientists on the project are Patrick Loehrer, M.D., director of the Indiana University Melvin and Bren Simon Cancer; Darron Brown, M.D., professor of medicine and of microbiology and immunology from the IU School of Medicine; and Elkanah Omenge Orango, M.D., from Moi University School of Medicine.

Dr. Brown was instrumental in developing the HPV vaccine.

Aaron Ermel, M.D., assistant research professor of medicine in the division of infectious diseases at the IU School of Medicine, was responsible for the development of a biobank that will be critical for the project. He and his Kenyan co-investigators – Kirtika Patel, Ph.D., and John Michael Ong'encha, Ph.D. -- will provide the laboratory testing and specimen banking that will allow for future projects to be developed as a result of this grant.

Researchers from Brown University, the University of Toronto and the University of Massachusetts along with the Miriam Hospital and Kenya Medical Research Institute, known as KEMRI, are also involved in the study.

These partners, in addition to AMPATH's corporate and philanthropic partners -- Eli Lilly, Pfizer, Celgene, AbbVie, Walther Foundation and Levinson Family Foundation -- helped to create the AMPATH Oncology Institute and enabled the IU Simon Cancer Center to compete successfully for this grant.

Cervical cancer, a preventable disease, is the No. 1 cause of cancer death in Kenyan women. Each year in Africa, about 80,000 women are diagnosed with cervical cancer and 60,000 die from the disease. Early detection screenings, which are common in the United States, are rare in western Kenya.

Cervical cancer is linked to HPV and HIV in sub-Saharan Africa. Overall, sub-Saharan Africa has 70 percent of the world's diagnosed cases of HIV. Studies have shown that HIV is a contributing factor for developing cervical cancer and that HIV-infected women have a greater incidence and persistence of HPV infections and suffer from higher incidences of cervical cancer and precancerous cervical lesions.

"With this grant, we expect to build a sustainable, multi-institutional and transdisciplinary mentoring program that will foster the development of new cancer researchers in Kenya," Dr. Loehrer said. "By training Kenyan nurses, technicians, physicians and scientists, our goal is to significantly reduce the prevalence of HPV and cervical cancer among women by studying the various subtypes of HPV in HIV-positive and HIV-negative women. We hope to optimize future vaccination efforts in developing nations."

About AMPATH

AMPATH, the Academic Model Providing Access to Healthcare, is a partnership between Moi University

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School of Medicine, Moi Teaching and Referral Hospital in Eldoret, Kenya, and a consortium of 11 academic health centers led by Indiana University. Together with Kenya's Ministry of Health and the U.S. government, AMPATH delivers health services, conducts health research and develops leaders in health care for both North America and sub-Saharan Africa.

About AMPATH Oncology Institute

The cancer care services of AMPATH have evolved from a targeted program in HIV/AIDS cancers to providing general cancer care. Driven by the needs of the Kenyan health care providers, AMPATH Oncology offers cancer care that would otherwise be out of reach for most patients. The comprehensive multidisciplinary program offers screening, diagnosis, treatment and palliative care. The AMPATH Oncology Institute provides access to quality cancer care to the 18 million people residing in western Kenya.

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Grants from Indiana CTSI fuel search for potential new drugs

Dec. 11, 2014

INDIANAPOLIS -- The Indiana Clinical and Translational Sciences Institute recently awarded more than $100,000 to researchers seeking to identify new therapeutic agents for potential development as future drugs. The funded projects will target conditions such as cancer, drug-resistant infections and chronic pain.

The grants are the first from the Indiana Drug Discovery Alliance, a central access point for statewide drug discovery and development resources established this year by the Molecular Therapeutics Program of the Indiana CTSI. The institute is a National Institutes of Health-funded collaboration of Indiana University, Purdue University and the University of Notre Dame.

The objective of the Indiana Drug Discovery Alliance is to promote and support promising early-stage drug-discovery research and facilitate collaborative translational research partnerships. With drug discovery expertise from each of the Indiana CTSI partner universities as well as Eli Lilly and Co., the alliance's advisory committee is identifying complementary expertise and critical resource facilities across these institutions.

"Each of the projects funded under the inaugural Indiana Drug Discovery Alliance grants were chosen for their high potential to generate new intellectual property and yield discoveries that advance the fight against disease," said Anantha Shekhar, M.D., Ph.D., director of the Indiana CTSI and associate vice president for university clinical affairs at IU. "Scientists are increasingly asked to present strong evidence for the effectiveness of proposed new therapies before they even begin to reach out to public or private partners for funds. We want to provide the boost needed to generate evidence that attracts external support and results in new products that save lives in the near future."

Grant recipients were chosen from more than 30 applicants. Many projects involve the rapid analysis of tens of thousands of potential chemical compounds that have a powerful effect on some aspect of the disease under investigation. These compounds can then be marked for additional investigation and potential development as drugs.

The 2014 Indiana Drug Discovery Alliance grant recipients are:

- Theodore Cummins, Ph.D., professor and interim chair of pharmacology and toxicology at the IU School of Medicine. Dr. Cummins' project relates to chronic pain management.
- Chang-Deng Hu, M.D., Ph.D., associate professor of medicinal chemistry and molecular pharmacology at Purdue University. Dr. Hu's project relates to cancers such as leukemia and lymphoma as well as cancers of the breast, lung, colon and rectum, ovaries, skin, and brain.
- Julia C. Van Kessel, Ph.D., assistant research scientist in the Department of Molecular and Cellular Biochemistry at IU Bloomington. Dr. Kessel's project relates to antibiotic-resistant infections. Laura C. Brown, Ph.D., of the Department of Chemistry at IU Bloomington, is a collaborator on the project.
- Tao Lu, Ph.D., assistant professor of pharmacology and toxicology biochemistry and molecular biology at the IU School of Medicine. Dr. Lu's project relates to colon cancer.
- Samy Meroueh, Ph.D., associate professor of biochemistry and molecular biology at the IU School of Medicine and a member of the IU Simon Cancer Center. Dr. Meroueh's project relates to the breast cancer. Clark D. Wells, Ph.D., associate professor of biochemistry and molecular biology at the IU School of Medicine, is a collaborator on the project.
- Maria Teresa Rizzo, M.D., associate investigator at the Methodist Research Institute and an adjunct assistant professor of medicine and of pharmacology and toxicology at the IU School of Medicine. Dr. Rizzo's project relates to glioblastoma, a highly aggressive form of brain cancer. Collaborators on the project are Mingji Dai, Ph.D., professor of organic chemistry at Purdue; and Karen Pollok, Ph.D., associate professor of pediatrics, and Aaron Cohen-Gadol, M.D., associate professor of neurological surgery, both at the IU School of Medicine.
- Stanley Spinola, M.D., professor and chair of microbiology and immunology at the IU School of Medicine. Dr. Spinola's project relates to drug-resistant bacteria, such as those responsible for urinary tract infections,

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pneumonia, sepsis and sexually transmitted disease.
- Jingwu Xie, Ph.D., Jonathan and Jennifer Simmons Professor of Pediatrics and a member of the Herman B Wells Center for Pediatric Research at the IU School of Medicine. Dr. Xie's project relates to pancreatic cancer.

Scientific consultants for the Indiana Drug Discovery Alliance include Jaipal Singh, Ph.D., and Zhong-Yin Zhang, Ph.D., of the IU School of Medicine; Yvonne Y. Lai, Ph.D., and Michael Nieuwenhze, Ph.D., of IU Bloomington; Timothy Ratliff, Ph.D., and Andrew Mesecar, Ph.D., of Purdue; Richard Taylor, Ph.D., of Notre Dame; Scott M. Sheehan, Ph.D., of Eli Lilly and Co.; and Jay McGill, Ph.D., of Eli Lilly and Biocrossroads. The team will track the progress of each of the funded projects and offer advice and support to the principal investigators.

The Indiana Clinical and Translational Sciences Institute is a statewide collaboration of Indiana University, Purdue University and the University of Notre Dame to facilitate the translation of scientific discoveries in the lab into new patient treatments in Indiana and beyond. It was established in 2008 with a Clinical and Translational Science Award from the National Center for Advancing Translational Sciences at the National Institutes of Health totaling $60 million (TR000006, TR000163 and TR000162), with additional support from the state, the three member universities and public and private partners. It is a member of the national network of over 60 CTSA-funded organizations across the country.

IUSCC news

December 2014

News briefs

Komen Tissue Bank at IU Simon Cancer Center adds assistant research scientist

A former National Institutes of Health scientist has joined the Susan G. Komen Tissue Bank at the IU Simon Cancer Center.

Marino

Natascia Marino, PhD, has been named an assistant research scientist with the Komen Tissue Bank. In this role, she will conduct research on the normal breast and how it relates to the development of breast cancer.

Dr. Marino was most recently a postdoctoral fellow with the National Cancer Institute, part of the NIH, in Bethesda, Md. Dr. Marino earned her PhD in pharmacology and molecular oncology from Ferrara University in Ferrara, Italy, and a Bachelor of Science in biotechnology science from the University of Naples Federico II in Italy. She is a member of the American Association for Cancer Research and the Association of Women in Science.

She can be reached at 274-3340 or marinon@iu.edu.

The Komen Tissue Bank is the first and only healthy breast tissue bank in the world. By collecting samples from women without breast cancer, researchers may be able to determine the differences between healthy and cancerous tissue, which will lead to a better understanding of the cellular changes of the disease.

Seeking students. Do you know of high school or college students who have an interest in exploring cancer research? If so, encourage them to apply for the **2015 Summer Research Program** at the IU Simon Cancer Center. Applications are due Feb. 27.

full story>

WorthNY sample sale to benefit Komen Tissue Bank

Worth New York is hosting “Giving Is Always In Fashion,” a 50 percent off sample sale to support the Komen Tissue Bank at the IU Simon Cancer Center.

The sale is:

- 4 p.m. to 8 p.m. Thursday, Jan. 8,
- Noon to 7 p.m. Friday, Jan. 9
- 10 a.m. to 4 p.m. Saturday, Jan. 10

The sale is is at the Worth NY showroom, 450 E. 96th St., Suite 125. It is cash and carry; all items are considered sold with no returns. Visa, MasterCard, and American Express cards are accepted.

Samples from sizes 0-14, including petites, will be available for 50 percent off of the retail price. For every item sold, Worth NY will donate 20 percent of the retail price to the tissue bank.

The *Just Peachey: Bearing Fruit* cookbook will also available for purchase at the event for $20, a savings of $5 per book. All proceeds from the sale of the cookbook fund breast cancer research and projects at Indiana University.

The Indianapolis Colts recently presented $70,000 to the IU Simon Cancer Center for the Joe Ward Fellowship in Cancer Research. Thank you, Colts!

Komen Tissue Bank sample appears on journal's cover

The artwork on the December 2014 cover of the journal Cancer Epidemiology, Biomarkers & Prevention is an image of an H&E stained section of normal breast tissue from the Komen Tissue Bank at the IU Simon Cancer Center. Researchers from Purdue University, Mayo Clinic, the National Cancer Institute, Yale University, Dartmouth College, Dana-Farber/Harvard University, Breakthrough Research Centre at The Royal Marsden Hospital in the U.K., and the University of Queensland in Australia have already tapped into the bank.

Reminders

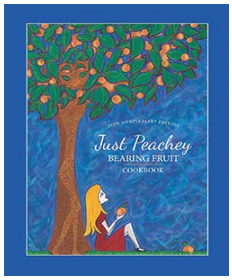
Cincinnati Cancer Institute hosts survivorship program in March 2015

The University of Cincinnati Cancer Institute's Cancer Survivorship Program is hosting "Transforming Cancer Survivorship Through Research and Best Practice," from 8 a.m. to 4 p.m., Friday, March 27, at the Kingsgate Marriott Conference Center, 151 Goodman Drive, Cincinnati.

The event is planned to educate and meet the needs of physicians, nurses, psychologists, residents, medical students, social workers, counselors, dieticians and other oncology health professionals on the best practices and latest research for cancer survivorship. Julia Rowland, PhD, director of the National Cancer Institute Office of Cancer Survivorship, will be the keynote speaker.

For the full agenda, abstract requirements or to register, visit www.uchealth.com/events/transformingsurvivorshipding to cancer.. Questions? Contact Shanah Cole at (513) 558-9908.

Cookbook makes for great holiday gifts, supports breast cancer research



Consider giving family and friends *Just Peachey: Bearing Fruit,* a cookbook and breast health reference, as holiday gifts. Developed by the Catherine Peachey Fund, the book is the 20th anniversary edition of *Just Peachey: Cooking Up a Cure*, which sold 57,000 copies and established the Catherine Peachey Fund as a funding resource for breast cancer researchers in Indiana.

All of the revenue from sales of the cookbook will be granted to research and programs at IU. To date, the Catherine Peachey Fund has granted $2,447,143 to Indiana University.

Just Peachey: Bearing Fruit includes more than 500 recipes from celebrities, chefs, cancer survivors, physicians, researchers, and friends and family. The pink pages at the front of the book were overseen by Anna Maria Storniolo, MD, medical editor.

The cookbook is available at amazon.com and Bright Ideas (on the north side of Broad Ripple) for $24.99. Or you can purchase from Liz Parsons, Vivian Murphy, or at the Komen Tissue Bank at the IU Simon Cancer Center.

Cancer center members in the news


Vance

- **Gail Vance**, MD, interim chair of medical and molecular genetics at the IU School of Medicine, recently was honored in Chicago for her work in genomics with the College of American Pathologists Outstanding Service Award. Dr. Vance is director of the Division of Diagnostic Genomics in the Department of Medical and Molecular Genetics and director of the Indiana Familial Cancer Program at the IU School of Medicine. The Indiana Familial Cancer Program provides genetic counseling, risk assessment and genetic testing to individuals with an elevated risk for developing cancer. As the leading organization with more than 18,000 board-certified pathologists, the College of American Pathologists serves patients, pathologists, and the public by fostering and advocating excellence in the practice of pathology and laboratory medicine worldwide.

- The following cancer center members attended the San Antonio Breast Cancer

Symposium earlier this month: **Kathy Miller**, MD; **Sunil Badve**, MBBS, MD; **Steven Johnson**, PhD; **Hari Nakshatri**, PhD; and **Linda Han**, MD.

- ASH (American Society of Hematology) held its 56th annual meeting and exposition in San Francisco earlier this month. The following cancer center members presented a poster:

  - **Xingjun Li**, MD, PhD, Macrophage NADPH Oxidase Activation and ROS Production Is Positively Regulated By Shp2 Phosphatase Function.

  - **Noriyoshi Kurihara**, DDS, PhD, Macrophage NADPH Oxidase Activation and ROS Production Is Positively Regulated By Shp2 Phosphatase Function

  - **Rebecca Silbermann**, MD, The p62-ZZ Domain Inhibitor XRK3F2 Alters Myeloma-Induced Suppression of Osteoblast Differentiation and Is Highly Cytotoxic to Myeloma Cells in Combination.

  - **Toshiyuki Yoneda**, DDS, PhD, Acidic Extracellular Microenvironment in Myeloma-Colonized Bone Contributes to Bone Pain

  - **Susanne Ragg**, MD, PhD, Serum Protein Abundance in Children with Sickle Cell Disease at Baseline, during Acute Pain Crisis, and on Hydroxyurea - Compared to Children with Other Pediatric Diseases

New member

Hongmei Nan, MD, PhD
Department of Epidemiology
Richard M. Fairbanks School of Public Health
Associate member, Cancer Prevention and Control

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