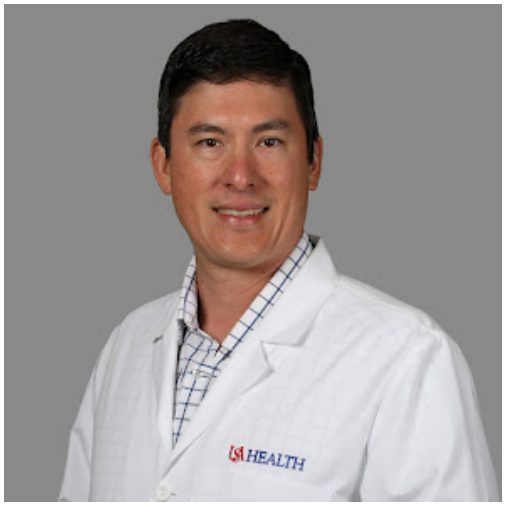
Med School Watercooler
NEWS FROM FREDERICK P. WHIDDON COLLEGE OF MEDICINE
AT THE UNIVERSITY OF SOUTH ALABAMA

Thursday, November 30, 2023

Pediatric interventional radiologist joins radiology faculty



Kevin Wong, D.O., a fellowship-trained pediatric interventional radiologist, recently joined the Department of Radiology at USA Health. A subspecialty of radiology, there are only 300 or so such specialists now practicing in the United States. He is the only pediatric interventionalist on the Alabama Gulf Coast.

"We are delighted to have Dr. Wong join the USA Health team as we seek to continuously improve the services we provide to our patients," said Suzy Figarola, M.D., professor and chair of radiology at the Whiddon College of Medicine. "He has a passion for helping children and their families find answers to medical questions using less-invasive diagnostic procedures."

Pediatric interventional radiologists use various imaging modalities – including X-rays, ultrasounds, and CT scans – to perform minimally invasive procedures such as the placement of central venous lines, conducting biopsies and joint injections, Wong said.

"I was taught to focus on the whole patient, mind, body and spirit – and I remember that as I go through my day, meeting and talking with families who want to find out as quickly as possible what issues their child may be facing," said Wong, who is an associate professor of radiology at the Whiddon College of Medicine.

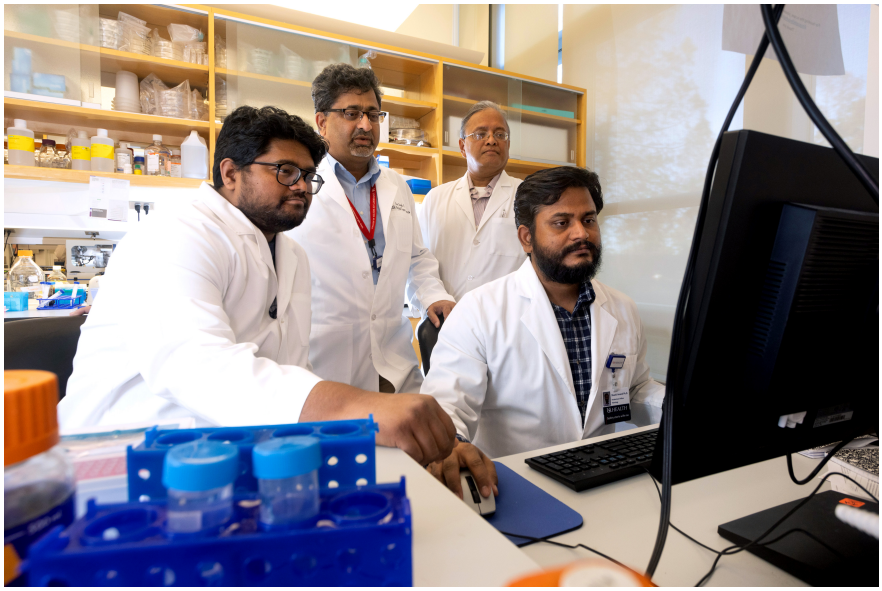
Most recently, Wong served as an assistant professor of radiology and pediatrics at the University of Arkansas for Medical Sciences in Little Rock, Arkansas, where he was also vice chief of the Division of Pediatric Radiology. He is double board certified in diagnostic radiology and pediatric radiology.

Wong received his medical degree from Touro College of Osteopathic Medicine in New York. He completed a residency in diagnostic radiology at Michigan State University and continued his training at Phoenix Children's Hospital in Arizona, completing fellowships in diagnostic pediatric radiology and pediatric interventional radiology.

"I'm excited to be part of a growing academic health system that's focused on patient- and family-centered care," he said.

Posted by Med School Watercooler at 3:00 PM

USA researchers identify potential biomarkers for detection and treatment of triple-negative breast cancer



Researchers leading the study, from left, are Kunwar Somesh Vikramdeo, Ph.D., Ajay Singh, Ph.D., Santanu Dasgupta, Ph.D., and Shashi Anand, Ph.D.

Early detection and effective treatment of triple-negative breast cancer (TNBC) are the ultimate goals of a study by researchers at the USA Health Mitchell Cancer Institute and the Frederick P. Whiddon College of Medicine.

The research is a collaborative endeavor from the laboratory of Ajay Singh, Ph.D., leader of the Cancer Biology Program at the Mitchell Cancer Institute and a professor of pathology at the Whiddon College of Medicine, and Santanu Dasgupta, Ph.D., a cancer researcher at the Mitchell Cancer Institute and an assistant professor of pathology at the Whiddon College of Medicine.

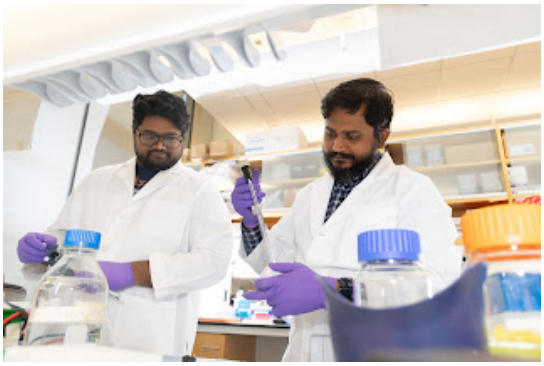
Upon diagnosis, breast cancer is divided into different molecular subtypes based on the expression of estrogen and progesterone receptors and HER2, a growth factor receptor that is known to fuel breast cancer growth. If the cancer cells test negative for these three receptor proteins, it is categorized as triple-negative breast cancer that relies on yet uncharacterized growth pathways.

TNBC accounts for 10% to 15% of all breast cancers. This aggressive type of cancer grows and spreads more rapidly and is more likely to return after treatment than other types of breast cancer. These cancers tend to be more common in women younger than age 40 or who have a BRCA1 gene mutation. Black women also have a higher risk of developing TNBC.

Treatment options for TNBC are limited compared to other molecular subtypes for which receptor-targeted therapies are available. Researchers at the Mitchell Cancer Institute and the Whiddon College of Medicine aim to find novel therapeutic vulnerabilities for this aggressive subtype as well as develop tools for earlier diagnosis at a localized stage. In their recent efforts, they measured changes in mitochondrial DNA in tumors and circulating extracellular vesicles from women with a primary diagnosis of metastatic triple-negative breast cancer. Mitochondria plays a role in fulfilling the energy demand of the cells, and cancer cells often exhibit mutations in their mitochondrial DNA.

“The broader vision and mission of our study is to develop a minimally invasive blood test kit for early diagnostics, monitoring, and guiding therapeutic planning of triple-negative breast cancer patients,” Dasgupta said.

Published in FASEB BioAdvances, a journal of the Federation of American Societies for Experimental Biology, this is the first study to catalog metastatic tumor-signature mitochondrial DNA mutations in TNBC patients and then trace the tumor-signature mutations in the circulating extracellular vesicles of the same patients with high sensitivity and specificity. Notably, the majority of the hotspot mitochondrial DNA mutations detected in the TNBC patients were also detected in the circulating extracellular vesicles of highly aggressive pancreatic cancer patients, as found in a 2022 study conducted by the Singh and Dasgupta team.



Postdoctoral researchers Kunwar Somesh Vikramdeo, Ph.D., left, and Shashi Anand, Ph.D., are lead authors of the study.

"These findings are very encouraging and implicate the role of these mutations in driving human tumorigenesis," said Kunwar Somesh Vikramdeo, Ph.D., a postdoctoral researcher and one of the lead authors of the study.

In addition to the mutational events, the team found unique abundances of mitochondrial DNA and cardiolipin contents (an inner mitochondrial membrane lipid) in the extracellular vesicles of these TNBC patients.

"Thus, measuring tumor-signature mitochondrial DNA alterations in concert with cardiolipin contents in the circulating extracellular vesicles could be useful to formulate a minimally invasive method for early cancer detection and monitoring using a small amount of blood samples," said Shashi Anand, Ph.D., a postdoctoral researcher and one of the lead authors of the study.

Based on these findings from the Singh and Dasgupta laboratories, the University of South Alabama has submitted a non-provisional patent application for the development of a novel mitochondrial DNA detection platform using blood samples from patients. The researchers are currently seeking funding support and collecting blood samples from a larger number of cancer patients to test the panel of mitochondrial markers that were developed in their laboratories.

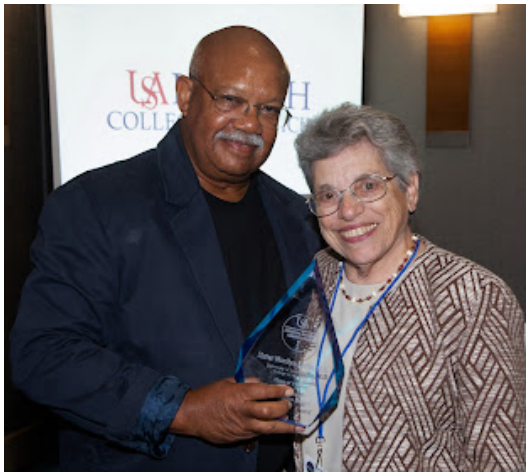
"Mitochondrial DNA mutations are detectable in the circulation and are frequent in human cancers, likely promoting aggressive tumor growth," Singh said. "We want to exploit these observations to develop ways to detect cancer early and even predict its nature for improved therapeutic management and enhance patients' survival."

The work is supported by funding from the Breast Cancer Research Foundation of Alabama, the Mitchell Cancer Institute, and the University of South Alabama. Additional authors from the Mitchell Cancer Institute and the Whiddon College of Medicine are Sarabjeet Kour Sudan, Ph.D.; Paramahansa Pramanik, Ph.D.; and Seema Singh, Ph.D. Andrew K. Godwin, Ph.D., a professor of cancer biology, laboratory medicine, pathology, microbiology, molecular genetics, and immunology, is a co-author and collaborator from the University of Kansas Medical Center.

Read the full article in FASEB BioAdvances.

Posted by Med School Watercooler at 1:20 PM

Now accepting nominations for USA Medical Alumni Awards



Harold DuCloux, M.D., presents Marilyn Aiello, M.D., both members of the Class of 1978, with the Medical Alumni Humanitarian Award.

Nominations are now open for the 2024 USA Medical Alumni Awards, to be presented on Saturday, June 22, at the Awards Luncheon during Reunion Weekend in Gulf Shores, Alabama.

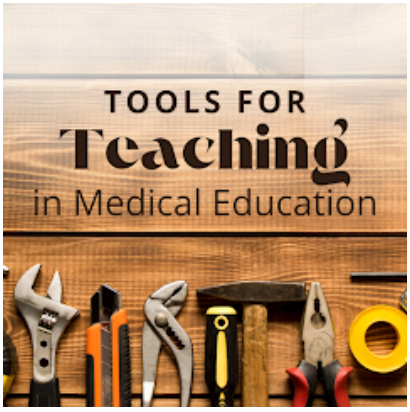
We need your nominations of outstanding COM alumni and faculty who are worthy of these special recognitions.

For complete awards criteria and nomination forms, visit southalabama.edu/colleges/com/alumni/awards.html.

The deadline is Jan. 12, 2024.

Posted by Med School Watercooler at 11:55 AM

Register now: Tools for Teaching in Medical Education



The Office of Faculty Affairs and Faculty Development invites Whiddon College of Medicine faculty and residents to join the Tools for Teaching in Medical Education program.

This six-session course will be offered on Tuesday afternoons from 2 to 4 p.m. in the Strada Patient Care Center first-floor conference room.

- Jan. 10: Backward Course Design: Part 1
- Jan. 24: Backward Course Design: Part 2
- Feb. 7: Interactive & Active Learning: Technology in the Classroom
- Feb. 21: Assessment Design & Feedback
- Mar. 6: Writing & Analyzing Exam Questions
- Mar. 20: Small Group/Bedside Teaching

Sessions will be taught by faculty and staff from the Whiddon College of Medicine and USA Health. Two hours CME per session will be provided. While in-person attendance is preferred, there will be a Zoom option available.

Contact Amanda Arnold at akarnold@southalabama.edu for more information or to register. Space is limited.

Posted by Med School Watercooler at 11:12 AM

Center for Healthy Communities to host community health worker forum

The University of South Alabama Center for Healthy Communities and the Mobile County Health Department are hosting a professional development forum for community health workers in Mobile County. The session is set for Wednesday, Dec. 6, from 9:30 a.m. to 3:30 p.m. at the Goodwill Gulf Coast Community Center, located at 2440 Gordon Smith Drive in Mobile.

Ashley Williams Hogue, M.D., the new CHC director, and Kevin Michaels, M.D., the Mobile County Public Health Officer, lead the team that is piloting the integration of community health workers at the USA Health Stanton Road Clinic and the USA Student-Run Free Clinic.

Community health workers help facilitate access to services and improve the quality of delivery through outreach, community education, informal counseling, social support, and accuracy.

USA faculty will provide insights and strategies to enhance professional growth, including Dr. Shelly Bates with the Covey College of Allied Health Professions; Dr. George Bovenizer and Lea Malofsky, Department of Communications; and Dr. Jo Ann Otts, College of Nursing.

This event is open to everyone from seasoned professionals to those who are just getting started. Expert speakers will discuss effective communication, building strong professional relationships, and leveraging social media for career advancement.

This session will give participants the chance to engage in interactive discussions, ask questions, and gain practical knowledge that they can apply immediately.

Register for the event.