November 2018 News

In This Issue

1. UACC Updates
2. UACC On the Air
3. Shared Resource Highlight: Experimental Mouse
4. National Conversation
5. Survey: Media/Speaker List

UACC Updates

New Issue of Act Against Cancer Online

You can download a PDF of the fall 2018 issue of Act Against Cancer online.

The issue centers around the theme of clinical trials, and we talked to several of our physicians and scientists about the topic. Hani Babiker, Daruka Mahadevan, Daniel Persky and Ruth Cañamar give an overview of the clinical trial process. Joyce Schroeder talks about translating her breast cancer research into a clinical trial. Kirsten Limesand and Panos Savvides attack post-radiation dry mouth in a clinical trial. Sherry Chow, Elizabeth Jacobs and Peter Lance seek evidence for a relationship -- positive or negative -- between selenium supplementation and cancer risk. Jennifer Hatcher, Karen Francis-Begay, Jorge Gomez and Pavan Chalasani discuss the importance of diversity in clinical trials. There are also patient profiles and more!

Please contact Anna C. Christensen if you would like paper copies of the magazine to share with colleagues, patients, donors, friends and family.
Clara Curiel, MD, Wins Recognition as 2018 Arizona Bioscience Researcher of the Year

On Oct. 3, Clara Curiel, MD, director of the UA Cancer Center’s Cutaneous Oncology Program, was honored by the Arizona Bioindustry Association (AZBio) as the 2018 Arizona Bioscience Researcher of the Year for her work on both the treatment and prevention of skin cancer.

Since joining the UA Cancer Center in 2005, Dr. Curiel has divided her work between the research front, where she searches for skin cancer biomarkers and new imaging technology, and the clinical setting, where she can be found holding a patient's hand and walking them through a difficult discussion about their medical care.

“One of my driving passions is to bring the message of skin cancer prevention to every Arizonan, and to expand their access to early detection and state-of-the-art treatment,” Dr. Curiel said. “AZBio’s recognition of my work and my life’s passion is a true honor.”

See photos from the event on our Facebook page!

Targeting Rhabdomyosarcoma, a Rare Pediatric Cancer With Few Treatment Options

Rhabdomyosarcoma (RMS) is a rare cancer of the skeletal muscle that primarily affects pediatric patients. After diagnosis, about 3 out of 4 patients are cured with standard treatment. Survival rates drop to 17 percent if the cancer recurs and to 30 percent if it metastasizes.

“RMS has among the worst survival statistics for any solid pediatric tumor,” said Justina McEvoy, PhD, of the UA Cancer Center. “There is an urgent need to improve therapies for these kids.”

In response, scientists are eager to identify “precision” drugs that can target tumors directly. The most comprehensive assessment of RMS drug targets recently was published in Cancer Cell. Dr. McEvoy, who was a first author, joined the study when she was a postdoctoral fellow at St. Jude Children’s Research Hospital, and continued to contribute after joining the UA in 2014.
NCI Grant Will Support UA Cancer Center Basic Clinical Partnerships

As part of its National Cancer Institutes grant, the UA Cancer Center supports collaborations between basic scientists and clinicians, who work together to answer important questions that will ultimately help patients.

This year's awardees are Benjamin Lee, MD, and Ken Batai, PhD, who will investigate biomarkers for early onset and prognosis of clear cell renal cell carcinoma; and Pavani Chalasani, MD, MPH, and William Montfort, PhD, whose project will examine nitric oxide stimulation of triple-negative breast cancer.

Drs. Lee and Batai's project will address the growing incidence of kidney cancer by finding biomarkers to identify patients who are at risk for early onset and aggressive types of kidney cancer. They will draw from Banner-UMC's high representation of Hispanic and Native American populations, which have a higher burden of this cancer but are under-represented in clinical and molecular studies.

Drs. Chalasani and Montfort seek to identify targeted therapies for triple-negative breast cancer. They hope to uncover the mechanisms by which pathways driven by hypoxia and nitric oxide synthase are associated with tumor progression, metastasis, immune evasion and resistance to chemotherapy. With these studies providing a biological foundation for their hypothesis, they aim to test existing drugs on patient tumors.

UA Skin Cancer Institute Presents 9th Annual Melanoma Walk, Saturday, Nov. 3
The **University of Arizona Skin Cancer Institute** will present the ninth annual **Melanoma Walk** on Saturday, Nov. 3, on the UA Mall. Activities begin at 3:30 p.m. and the walk starts at 5 p.m. Proceeds from the walk directly support melanoma research, community outreach, education and patient care in Arizona.

The walk is family- and pet-friendly and includes prizes and giveaways, music, food, a silent auction and activities for kids. Registered participants will receive a “goody bag” and food. Before the walk, the UA Skin Cancer Institute will offer free screenings and spot checks from 2:30 to 4:30 p.m. — first come, first served.

Advance registration is $30 for adults, $15 for children ages 10-14 and free for children 9 and younger. Participants also may register as a “Skin Cancer Prevention Friend” (SPF) for $125, which provides one walk registration plus membership in the SPF program that supports the Institute’s prevention and cure activities.

**Sathish Padi to Present at American Association for Cancer Research Conference in Boston, Dec. 1**

Sathish Padi, PhD, will be headed to Boston to present at the **AACR Special Conference: Targeting PI3K/mTOR Signaling**, which will be held from Nov. 30 to Dec. 3. His abstract is titled “Phosphorylation of DEPDC5 by the Pim-1 protein kinase, a cancer driver, stimulates mTORC1 activity by decreasing the DEPDC5- Rag GTPase interaction.” The presentation will summarize the discoveries made in the Kraft Lab, based on work performed with **Koichi Okumura, PhD**.

Dr. Padi will give a short oral presentation about their research work and present the results in a poster.

Dr. Padi also received a Scholar-in-Training Award to attend the conference. As a postdoc in the Kraft Lab, Dr. Padi’s research focuses on comprehensive developmental pathways, and how alterations in gene expression contribute to drug resistance and drug response in cancer cells.

**Breast Team Hosts Successful Outreach Event**
On Sept. 29, the UA Cancer Center Breast Team welcomed the community to an event titled “Are You at High Risk for Breast Cancer?”

Cassie Garcia, MS, CGC, a certified oncology genetic counselor, gave a presentation on how genetic testing and a detailed understanding of one’s personal and family history can help patients make decisions about genetic testing options, screening and prevention. UA breast surgeon Rebecca Viscusi, MD, gave a presentation on surgical options for high-risk patients. Suzette Bryan, MD, breast radiologist, reviewed current recommendations for patients at increased risk for breast cancer. Sima Ehsani, MD, UA Cancer Center breast oncologist, gave a presentation on risk-reduction strategies, including chemoprevention options like tamoxifen. Pavani Chalasani, MD, MPH, leader of the breast cancer clinical research team, informed attendees about participating in clinical trials to help expand scientific knowledge about breast cancer risk.

“The event was considered a great success by the Breast Team and attendees seemed to get a lot out of the experience,” says Shawn Mulligan, MS, MSN, oncology nurse navigator. “There were lively Q&A sessions and the attendees were very engaged in the provider presentations.”

Pictured below, clockwise from left: Dr. Chalasani (left) and Wendy Greer, nurse navigator (center); Leigh Neumayer, MD, breast surgeon, and Sao Jiralerspong, MD, breast medical oncologist; Shawn Mulligan and Dr. Ehsani; Cassie Garcia, Dr. Ehsani and Dr. Viscusi; nurses Deb Isaacs and Margie Brundage; Suzette Bryan, MD; Dr. Ehsani and Dr. Viscusi. Photos by Beth High, MSN, RN
UACC on the Air
In September, Clara Curiel, MD, director of the UA Cancer Center’s Cutaneous Oncology Program, talked to KVOA channel 4 about how the sun in Tucson can lead to premature aging of the skin and increased cancer risk.

Watch Video

Shared Resource Highlight: Experimental Mouse

The Experimental Mouse Shared Resource (EMSR) has provided expertise to the UA Cancer Center and outside investigators since 1993. The EMSR offers a continuum of services from initial consultation and in vivo experimental design, to genetically engineered mouse (GEM) production, mouse experimentation and data analysis. The EMSR enables the investigator to generate and use mouse models of cancer to their fullest potential, utilizing the service’s extensive knowledge and expertise at competitive pricing. The EMSR helps to develop cancer therapies that are efficient, cost effective and clinically relevant.

The EMSR is a full-service facility that performs preclinical experiments in a wide variety of in vivo and in vitro cancer models.

Services

Services provided by the GEM PRODUCTION UNIT:

- vector design and construction for both transgenic and gene-targeted mice

Read more about all of the Shared Resources at the University of Arizona Cancer Center:

- Analytical Chemistry
- Behavioral Measurement and Interventions
- Bioinformatics
- Biostatistics
- Cancer Imaging
- Experimental Mouse
- Flow Cytometry
- Genomics
- Proteomics
- Tissue Acquisition and Cellular/Molecular Analysis
• gene targeting in ES cells
• screening for targeted ES cells
• CRISPR/Cas9-based genome editing
• pronuclear and cytoplasmic zygote injections and blastocyst injection
• screening for founder, germline chimeric and genome-edited mice, and breeding for speed congenics
• consultation on GEM colony management
• sperm cryopreservation, IVF and embryo rederivation

Services provided by the RODENT EXPERIMENTATION UNIT:

• animal techniques (drug testing, rodent acute toxicity and pharmacokinetics)
• patient-derived xenograft (PDX models)
• surgeries (orthotopic injections, ovariectomy, window chambers, etc.)
• mouse colonies maintenance
• cell culture
• xenograph and GEM models tissue bank
• IACUC protocol support
• administrative support

National Conversation

• Are We Being Misled About Precision Medicine? (New York Times): Doctors and hospitals love to talk about the patients they’ve saved with precision medicine, and reporters love to write about them. But the people who die still vastly outnumber the rare successes.

• Nobel Prize in medicine goes to cancer immunotherapy researchers (Washington Post): Last month, the Nobel Prize in physiology or medicine was awarded to James P. Allison and Tasuku Honjo, whose studies led to the development of checkpoint inhibitors. The award underscores the importance of supporting basic science.

• Americans really want to believe in alternative therapies for cancer (NBC News): A survey released at ASCO found that nearly 40 percent of Americans said they believed cancer could be cured solely through alternative therapies like oxygen therapy, certain diets, vitamins and minerals.

• Congratulations. Your Study Went Nowhere. (New York Times): Researchers should embrace negative results instead of accentuating the positive, which is one of several biases that can lead to bad science.

Do You Want to Help Educate the Community About Cancer?
The communications and outreach teams are compiling a list of experts willing to speak to reporters and the community. This spreadsheet will allow us to respond quickly to requests from media and community members, many of whom might be working under tight deadlines.

Please fill out the following survey if you are interested in helping to educate the wider community about issues in cancer care, prevention and research.

**Take Survey**

A hearty thanks to the 36 UACC folks who have already filled out the survey!

Journalists and reporters — locally, nationally and internationally — want to talk to cancer experts.

Visit our website

STAY CONNECTED