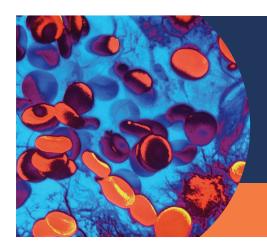
Attached is a proof for your review. Please pay particular attention to contact information such as phone numbers, email addresses, web addresses and mailing address.

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UVA Tissue Bank News

SPRING 2018 ISSUE 2

UVA CANCER CENTER An NCI-Designated Cancer Center

We are thrilled to bring you this fall edition of UVA Tissue Bank News, a newsletter created for participants in Partners in Discovery for Total Cancer Care at UVA. You are receiving this newsletter because you graciously decided to participate in Partners in Discovery for Total Cancer Care at UVA, a specimen biobanking project sponsored by UVA Cancer Center. Samples in our biobank are donated by patients at UVA who sign a consent form and agree to have their samples used in medical research. The biobank is a valuable resource for researchers studying a wide variety of cancers.

Since our last newsletter, we are excited to announce that we just hit a significant milestone: 2,000 participants since we began enrollment in December 2015. None of this work would be possible without the help of participants like you.

In this issue, we will:

- · Review what participating involves
- Review changes to the program in the past year
- Provide information about the UVA Biospecimen and Tissue Research Facility (BTRF), which plays a critical role in Partners in Discovery
- Look into research being done with the biobank's samples

Who is eligible to participate?

You were asked to participate in Partners in Discovery if:

- You are 18 years of age or older
- You are or have been a patient at UVA Health System
- You either had cancer previously, have a current cancer diagnosis, are at risk for developing cancer, or have been evaluated for cancer

What does your participation allow us to do?

Since August 2016, our program has included two parts. The first part of the program is for patients who have solid cancers, such as breast cancer, lung cancer, or prostate cancer. The second part of the program is for patients who have hematologic or blood-related cancers, including lymphomas, leukemias, and other malignancies that involve the blood and bone marrow.

Our participants with solid cancers allow us to:

- Collect an extra sample of blood during clinically indicated lab draws
- Collect a buccal (cheek) swab at a routine visit
- Collect and store leftover tissues from surgical procedures
- Review their medical records and share coded information about their diagnosis with study sponsors and investigators
- Contact them if we find other studies they might be interested in

Our participants with hematologic (blood-related) cancers allow us to:

- Collect an extra sample of blood during clinically indicated lab draws
- Collect an extra sample of fluid during clinically indicated bone marrow biopsies
- Collect a buccal (cheek) swab at a routine visit
- Collect and store leftover tissues from surgical procedures
- Review their medical records and share coded information regarding their diagnosis with study sponsors and investigators
- Contact them in the future if we find other studies that they might be interested in
- Collect an additional sample during a clinically indicated lymph node biopsy (optional)



Learn more at our website: cancer.uvahealth.com/totalcancercare

We would like to hear from you.

Please email us with your questions, comments
and concerns: orien@virginia.edu

Why do we now have two versions of the program? (continued from page 1)

We started our program in December 2015 with a strong focus on solid cancers. Since then, we have expanded the program to also include participants with blood-related cancers.

Blood-related cancers must be studied differently from solid cancers. Because the study of blood-related cancers is different, we ask our participants to provide different samples than we might ask from a participant who has a solid cancer. When we recognized that we needed different samples to study blood-related cancers, we created a second version of our program over the past year just for UVA patients with blood-related cancers. These additional samples allow us to better study blood-related diseases.

We are only allowed to collect the samples that you agreed to contribute when you signed your consent form. If you signed an earlier version of the consent form and later visit UVA, we may ask you to consider signing the most current consent form described above to better study the particular cancer you have. Thank you for your time and consideration as we update our procedures.

UVA Biorepository and Tissue Research Facility (BTRF)

The Partners in Discovery program depends heavily on the UVA Biorepository and Tissue Research Facility (BTRF). BTRF is the major facility at UVA involved with processing and storing human samples for medical research. Ultimately, BTRF is responsible for collecting and storing samples left over from surgeries, providing clinical research support for sample processing, and offering other services to promote basic, translational, and clinical research.

The daily operations of BTRF fall into two categories. Biorepository operations, headed by Craig Rumpel, MS, include sample procurement, processing, and storage. Technical operations, headed by Pat Pramoonjago, PhD, include the study of proteins in tissues (also called "immuno-histochemistry"), fluid processing, and extraction of molecules related to the type of sample being processed. Mr. Rumpel and Dr. Pramoonjago are assisted by seven full-time technicians and two board-certified anatomic pathologists. They report to Christopher Moskaluk. MD, PhD, who is director of BTRF and the principal investigator for Partners

in Discovery for Total Cancer Care at UVA. We are pleased to feature BTRF staff in this edition of UVA Tissue Bank News and thank them for their efforts supporting our project.

Our Ongoing Projects

Study of Circulating Tumor Cells from Solid Tumors

Circulating tumor cells (CTCs) are cancer cells that separate from a person's tumors and move throughout the body in the blood or lymph system. CTCs are thought to be related to the spread of a tumor from one part of the body to another. Some researchers believe CTCs might be one of the earliest signs that a tumor is spreading. Using samples from patients enrolled in Partners in Discovery, a local company is studying CTCs in partnership with UVA physicians to determine whether they can be used as an indicator of disease progression and aggressiveness. This company is working toward developing simple blood tests for identifying CTCs that doctors can use to make important clinical decisions for their patients.

Studies of Acute Myeloid Leukemia

We are working with several labs at UVA on the study of acute myeloid leukemia (AML). One of our three AML projects studies changes to a person's genes that make them more likely to cause cancer. When damage occurs at certain gene sites, the resulting change in a person's genes can cause cancer. Identification of these particular changes in a patient sample could be an early warning of cancer development. This project is led by Yuh-Hwa Wang, PhD. A second project co-led by Thomas Loughran Jr., MD, and Mark Kester, PhD, focuses on a potential target for AML therapy. Drs. Loughran and Kester are using special bioengineering techniques called "nanotechnology" to create more potent medicines that target tumor cells. A third project led by Victor Engelhard, PhD, focuses on the immune response to cancer cells in AML patients. The focus here is to create therapies in which the body's own immune system identifies and kills cancer cells.

Study of B-Cell Malignancies

We are working with one lab to study drug resistance and disease recurrence in B-cell malignancies, which are diseases that affect certain cells in the immune system. These diseases include chronic lymphocytic leukemia (CLL) and mantle cell lymphoma (MCL). Patients with CLL and MCL can develop resistance to a drug called ibrutinib, which is sometimes used to treat these diseases. To stop this resistance, another drug called venetoclax is used with or after ibrutinib. However, some patients become resistant to both drugs. Michael Weber, PhD, is leading the project to study samples from participants with these diseases to understand how this drug resistance happens.

AVATAR

Tissue or bone marrow samples from some of our participants are part of a gene sequencing project called Oncology Research Information Exchange Network (ORIEN) AVATAR. These samples will be analyzed for molecular clues regarding

how these cancers arose and are behaving. The combination of genetic information and clinical information collected through AVATAR will greatly expand our knowledge about changes in genes as causes of cancer and as indicators of response to therapy. Through this program, patients around the United States may someday have access to therapies tailored to their specific type of cancer and its specific characteristics.



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UVA CANCER CENTER

An NCI-Designated Cancer Center

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Withdrawal From the Program

You can withdraw from the program at any time without any effect on your care at UVA Cancer Center. Please email orien@virginia.edu or write to:

ORIEN Program c/o Joyce Miller UVA Cancer Center PO Box 800334 Charlottesville, VA 22908-0334