

Medical News

Public Affairs and Media Relations

614-293-3737



Wednesday, Feb. 26, 2016

Media Contact: Amanda Harper
Director, Media Relations
Direct: 614-685-5420
Central Media Office: 613-293-3737
Amanda.Harper2@osumc.edu

NOTE TO EDITORS: High resolution b-roll and photographs are available for download at: bit.ly/1PLT4A1.

Biologic Age – Versus Chronologic Age – Should Drive Cancer Treatment Choices

Ohio State University translational research team investigates use of aging biomarker in cancer assessment, opens new clinic to address needs of older blood cancer patients

COLUMBUS, Ohio -- As the boomer generation ages, the number of older adults with blood-based cancers is growing. For many of these patients, the best chance for a “cure” involves intensive treatments traditionally thought to be too harsh for people over age 65.

Experts at [The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute \(OSUCCC – James\)](#), however, say it is a patient’s overall “fitness” and biologic age – how their body has aged over time – that should guide treatment choices, not their age in literal calendar years.

Research published by [Ashley Rosko](#), MD, [Christin Burd](#), PhD, and others at The OSUCCC - James is debunking the idea that age alone should be a limiting factor to treatment.

Their team is studying the process of aging and how it impacts a person’s ability to tolerate cancer treatments. The goal is to define objective markers of biologic age that could be measured through a simple blood test and then integrated into the patient assessment process to better inform treatment decisions.

“There are many factors that influence the process of aging. Determining how functional a person really is involves a robust assessment of global health that spans everything from physical and mental health to other medical conditions and social support at home. All of these factors influence a person’s health and should be considered when determining if a chronologically ‘older’ patient can tolerate chemotherapy or stem cell transplant as part of their treatment.” says Ashley Rosko, MD, a hematologist and researcher at The OSUCCC – James. “A 70-year-old who has exercised, never smoked and has no other health conditions could be as ‘fit’ as a 55-year-old who has led a less-healthy life.”

Determining a person’s biologic age versus chronological age is a complex task. The knowledge gained, however, says Rosko, can give oncologists important information about how well a person’s body is functioning and guide care decisions based on both what the patient can tolerate and what treatment will give them the best changes for cancer eradication or control.

Clinical Study Testing Biomarker of Aging Detectable in Blood

Rosko is currently recruiting patients for a prospective study to evaluate whether the use of a comprehensive geriatric assessment approach can effectively segment patients into groups for specific targeted therapies more likely to increase their survival outcomes. As part of this study, blood samples will be analyzed for elevated levels of a protein called p16. This biomarker has shown to be present at higher levels in “aged” cells.

“P16 has the potential to help us understand whether a person is aging biologically faster or slower than their chronological age would suggest,” says Burd. The test is based on Burd’s previously published laboratory discoveries on P16.

“As we age, our ability to recover from illness and injury declines so we become more susceptible to conditions like cancer. Recent scientific studies illustrate a link between increasing numbers of non-regenerating cells in the body and age-related ailments. Therefore, knowing how many of these cells are present in each patient could give us important clues about a their ability to tolerate certain treatments,” adds Burd.

Burd is a [2016 Damon Runyon Cancer Research Foundation Innovation Award](#) recipient and an [American Federation for Aging Research](#) scholar. Her research is also supported by the [National Institute on Aging](#).

Geriatric Hematology Clinic Now Open

In February 2016, The OSUCCC -James opened a geriatric hematology clinic designed to address the specific needs of older adults with cancer. The clinic features innovative aging research paired with subspecialty evaluations by a pharmacist, case manager, nutritionist, physical therapist and audiologist all in one visit.

For appointments and information about hematology services at The OSUCCC - James, call 800-293-5066. More information about the subspecialized cancer treatment teams at The OSUCCC – James is available at cancer.osu.edu.

About the OSUCCC – James

The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute strives to create a cancer-free world by integrating scientific research with excellence in education and patient-centered care, a strategy that leads to better methods of prevention, detection and treatment. Ohio State is one of only 45 National Cancer Institute-designated Comprehensive Cancer Centers and one of only four centers funded by the NCI to conduct both phase I and phase II clinical trials on novel anticancer drugs. As the cancer program’s 306-bed adult patient-care component, The James is one of the top cancer hospitals in the nation as ranked by *U.S. News & World Report* and has achieved Magnet designation, the highest honor an organization can receive for quality patient care and professional nursing practice. At 21 floors with more than 1.1 million square feet, The James is a transformational facility that fosters collaboration and integration of cancer research and clinical cancer care. For more information, visit cancer.osu.edu.