P4 Medicine: Personalizing, improving leukemia care

An Ohio State-led study has found that, among certain patients with acute leukemia, microRNA-3151 (miR-3151) can act as a new independent marker of the disease’s prognosis. The study involves patients with acute myeloid leukemia and normal-appearing chromosomes (CN-AML).

Physicians need molecular markers in order to guide personalized cancer treatment, selecting the optimal treatment for the best patient outcome. MicroRNAs, which are small molecules that cells use to help regulate the kinds and amount of proteins they make, can serve this purpose.

The research team found that when miR-3151 is over-expressed in CN-AML, the disease responds poorly to treatment, and patients experience shorter remissions and survival periods. This effect is independent of other gene mutations that may be present in the cells. Additionally, miR-3151 is encoded within a gene called BAALC, which itself is an independent marker of poor survival when over-expressed in CN-AML.

The findings could provide new insights into the nature of AML and might in the future help determine the best therapy for individual patients and further personalize AML therapy.

Clara D. Bloomfield, MD, a Distinguished University Professor at Ohio State and cancer scholar and senior adviser to the Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute (OSUCCC – James), was principal investigator for the study. Published online in the journal Blood, this paper is considered among the top 5 percent of papers published in this scholarly journal.

Funding from the National Cancer Institute, the Coleman Leukemia Research Foundation, the Deutsche Krebshilfe—Dr. Mildred Scheel Cancer Foundation, the Pelotonia Fellowship Program and the Conquer Cancer Foundation supported this research.

Other researchers involved in this study were Guido Marcucci, Kati Maharry, Sebastian Schwind, Michael D. Radmacher, Deedra Nicolet, Heiko Becker, Krzysztof Mrozek, Susan P. Whitman, Klaus H. Metzler, Jason H. Mendler, Yue-Zhong Wu, Sandya Liyanarachchi, Ravi Radmacher, Deedra Nicolet, Heiko Becker, Krzysztof Mrozek, Susan P. Whitman, Klaus H. Metzler, Jason H. Mendler, Yue-Zhong Wu, Sandya Liyanarachchi, Ravi

Clinician’s ride helps many

One evening just before Christmas in 1999, Donald Mack, MD, then a family-practice doctor in Spencerville, Ohio, discovered a lump on his testicle. He quickly had it examined.

“I was fortunate; I found the tumor early, while it was still confined to the gland,” Mack says.

His treatment involved surgery and radiation therapy. “I’d go for what I called my ‘tanning treatment.’ It sometimes left me a little tired, but it wasn’t nearly what most people with cancer experience,” he says.

In 2010, Mack relocated his practice, joining Ohio State’s Department of Family Medicine. That’s when he learned about Pelotonia.

“I immediately wanted to do it,” he says of the annual bicycling event that supports Ohio State cancer research. Mack, who earned his Ohio State MD degree in 1984, had ridden across the United States with a cycling group before starting medical school. Now, at age 50, he wanted to tackle the August ride in recognition of the 10th anniversary of his cancer diagnosis. The Ohio State and James Cancer Hospital-connection gave the event added meaning.

“I became very familiar with the Olentangy bike trail,” he says of his training that summer.

When Pelotonia weekend arrived, he completed the two-day, 180-mile route, the longest of the rides.

Mack rode Pelotonia again in 2011 while a family friend was in The James undergoing treatment for acute myeloid leukemia. As Mack prepared that morning to ride, the woman’s son and husband came to see him off.

“For them to come was really touching,” he says. As he rode, he had many people—friends, family and patients—in mind. He again completed the 180-mile course.

“I think Pelotonia is a significant event for the riders, most of whom are riding for someone with cancer, and that is multiplied by the good will that comes from raising money to fight cancer and support cancer research at Ohio State’s cancer center and The James Cancer Hospital,” he says.

Cancer research is vital, states Mack, who will ride 100 miles in this year’s Pelotonia: “In 25 years, I’ve seen so many changes in how we treat cancer. We are making strides every day.”

Pelotonia

In its first three years, Pelotonia has raised a remarkable $25.5 million for cancer research at Ohio State. Among the projects those funds support are:

• “Discovery and Innovation” to train Ohio State undergraduate, graduate and medical students, and postdoctoral investigators for future cancer research
• Two clinical trials, one investigating a breast-cancer vaccine developed at Ohio State, and the other a promising therapy for chronic lymphocytic leukemia
• “Best to Ohio State,” which supports start-up research projects, staff and supplies needed to establish 16 new cancer investigators at Ohio State
• Expanded research capabilities to help outfit new laboratories and purchase high-tech equipment.

Learn more about how you can support Pelotonia and Ohio State cancer research as a rider, donor or volunteer at pelotonia.org.
Serving up good nutrition for staff

Ginny Halloran | The Ohio State University Wexner Medical Center

Whether they’re doing the cooking or you are, the staff of Nutrition Services at Ohio State’s Wexner Medical Center wants to make sure that the food you eat makes a positive contribution to your good health.

Along with caring for the nutritional needs of nearly a thousand patients daily, Nutrition Services serves meals, snacks and drinks to an even larger number of faculty, staff, students and visitors in seven retail outlets (University Hospital, University Hospital East, CarePoint East, Martha Morehouse Medical Plaza, Eye and Ear Institute, Stephanie Spielman Comprehensive Breast Center and 660 Ackerman).

“Healthy food availability supports and encourages wellness among employees, students and visitors and sets the tone for encouraging additional lifestyle choices that reduce the risk of chronic disease,” says Jim Warner, program director in Nutrition Services.

Seasons Café diners may not have noticed some of the subtle, good-health changes made recently: the removal of salt shakers from tables, the elimination of deep-fried foods and the introduction of “super foods.”

“Super foods” specials highlight the value of choosing food items that are nutrient dense and calorie scarce, explains Warner. One “super foods” day featured dark chocolate; another demonstrated uses for healthy spices such as turmeric, garlic and ginger that people may not ordinarily use when cooking at home.

Snacks and drinks can be laden with sugar and calories. In September 2011, Nutrition Services changed its bottled beverage selection so that 80 percent of beverages (excluding milk) and 100 percent of juices have no added sugar.

How did staff respond? After the switch to the healthier beverages, drink sales went up 6 percent. As a result, in a comparison of two months in 2012 with the same period in 2011, Ohio State staff consumed a half million fewer calories.

The Seasons Select meal, offered at Seasons and Seasons Garden Cafes, is another nutritious choice that has been well received. Most meals are 500 calories or fewer, and lower in fat and sodium. Seasons Select participation is included as part of the Your Plan For Health incentive program.

“Some people have been a little hesitant to try new foods,” admits Warner. “But once they try these healthier foods, the feedback has been great. They’re coming back for seconds because they’re discovering these are quality products that are tasteful and appealing in appearance as well as low in calories and high in nutrition.”

Warner credits staff response to the creativity and innovative food preparation by Nutrition Services staff, especially the chefs. Nutrition Services recently brought on board 10 new chefs, graduates of regional culinary schools. While some chefs focus on patient service, several prepare foods for the retail cafes.

“We have always had a strong core staff, but these chefs are a real plus for us because they come in with the skill set necessary to create the types of entrees we’re looking for. They have plenty of new ideas and lots of enthusiasm,” says Warner, adding that Drew Patterson, assistant director of Nutrition Services, has done a great job overseeing the new staff.

Chefs often talk with staff about what is in a dish, how it was prepared and what makes it healthier than other preparation methods. This type of personalized service goes a long way to help people be more creative and thoughtful about meals they prepare at home, says Warner.

This same dedication to good nutrition and wellness is evident in Nutrition Services’ involvement with campus and community programs such as the OSU Health and Wellness initiative and with JamesCare for Life.

“We’ve really been involved from the beginning in supporting these initiatives aimed at improving faculty and staff health,” Warner says.

Progress is being made on the OSU Nutrition Framework aimed at fostering a healthier campus environment. This project will create an overarching philosophy and policies to promote healthful eating in all campus venues.

Nutrition Services also took the lead in a pilot program for staff to purchase local, naturally raised meat or “certified natural” produce. More than 300 employees are participating and receiving.

More than 300 staff members are taking part in a summer marketplace program that delivers fresh fruits and vegetables and naturally raised meats to the workplace. The program is coordinated by Nutrition Services.
National autism conference set for August

A national conference, Treating the Whole Person with Autism: Providing Comprehensive Care for Children and Adolescents with ASD, will be held Aug. 3–4 at the Hilton Columbus at Easton.

Ohio State’s Wexner Medical Center is hosting the conference in partnership with Autism Speaks, Nationwide Children’s Hospital, the Health Resources and Services Administration of the U.S. Department of Health and Human Services, and the American Academy of Pediatrics.

This conference is open to physicians, psychologists, nurses, allied health professionals, educators, behavioral specialists and other professionals, as well as families affected by autism.

Topics for science sessions and workshops include immune and metabolic dysfunction, gastrointestinal (GI) disorders, seizures, sleep issues, medication management, challenging behaviors, transition planning and care coordination.

Speakers include Ricki Robinson, MD, (author of Autism Solutions) and Peter Gerhardt, Ed.D., of New York City’s McKay School.

Medical Briefs

Mansfield serves as CNO

Jerry Mansfield, PhD, RN, was recently promoted to chief nursing officer (CNO) for University Hospital and the Richard M. Ross Heart Hospital. Mansfield has been the chief nursing officer of Ambulatory Services for OSU Health System since 2011 and has served as the interim CNO for University Hospital and the Ross Heart Hospital since February.

Rizer to guide clinical information technology

Milisa Rizer, MD, MPH, BSN, has been appointed to the position of chief medical information officer for Ohio State’s Wexner Medical Center. Rizer will help guide the development of information technology, particularly in the clinical setting, and ensure that its use aligns with the Wexner Medical Center’s mission.

Ohio State recognized for EMR progress

Ohio State’s Wexner Medical Center has received the highest award from HIMSS Analytics, the research arm of the Health Information and Management Systems Society. This distinction recognizes hospitals that have attained the highest level on the Electronic Medical Records Adoption Model, which tracks electronic medical records (EMR) progress. Ohio State is the first hospital in Ohio and among only 86 of the more than 5,000 hospitals nationwide to achieve this advanced level of patient records service.

Information research training program honored

Ohio State’s Department of Biomedical Informatics has received a prestigious five-year training fellowship award issued by the U.S. National Library of Medicine of the National Institutes of Health. This funding will support recruitment and education of biomedical informatics professionals, and it will enhance innovative research now being conducted. Ohio State’s Clinical and Translational Research Informatics Training Program is among 14 elite academic training programs nationwide that apply innovative biomedical informatics theories and methods to improve the overall health outcomes of patients.

Pharmacy program lauded

The May 2012 issue of Pharmacy Today, the official publication of the American Pharmacists Association, highlighted the successful collaboration of pharmacists and other healthcare team members at CarePoint Gahanna and CarePoint Lewis Center using the Patient-Centered Medical Home (PCMH) model. Working with physicians and medical assistants, pharmacists focus on helping patients within the primary care environment, assisting patients with chronic disease to optimize drug therapy, providing coaching and collaborating on patient care.

Learn more about how The Ohio State University Wexner Medical Center is “creating the future of medicine to improve people’s lives” by visiting the News and Media Room at medicalcenter.osu.edu.
Dr. Ali Rezai is a world-renowned neurosurgeon whose work with brain pacemakers at Ohio State has transformed the treatment of neurological conditions such as Parkinson’s disease. Like Dr. Rezai, THE WORLD’S BEST AND BRIGHTEST PHYSICIANS AND RESEARCHERS ARE COMING TO OHIO STATE to create a new model for health care that is predictive, preventive, personalized and participatory. We call it P4 Medicine.

What attracted me to Ohio State? The expertise, dedication and passion of the Ohio State team, coupled with a strong collaborative atmosphere and visionary leaders. Ohio State provides a unique environment for innovation that fosters new discoveries, pushes forward the frontiers of medicine and improves patients’ lives.

How am I advancing personalized health care at Ohio State? Our team is working hard to improve the diagnosis and treatment of Parkinson’s disease, Alzheimer’s, epilepsy and other neurological disorders. Personalized health care will also help us determine the most effective therapy for each patient and monitor the progress of preventive and customized treatments.

But for Ohio State, people with severe neurological disabilities might never regain their independence. I’m gratified to help patients improve their quality of life and to play a role in training the medical staff who will continue to discover and innovate.

Ohio State’s reputation for excellence is drawing world-class talent to Columbus. WE HAVE ATTRACTION MORE THAN 215 EXPERTS IN 2 YEARS, AND 87 PERCENT OF CENTRAL OHIO’S BEST DOCTORS ARE OHIO STATE FACULTY. Through their skill and dedication, we are delivering on our promise to improve people’s lives, and giving central Ohioans access to the very best care.

Ali Rezai, MD
Director of Ohio State’s Center for Neuromodulation
Came to Ohio State from The Cleveland Clinic in 2009
A world expert in Deep Brain Stimulation surgery, with more than 1,600 procedures performed
President of the American Society for Stereotactic and Functional Neurosurgery, and the North American Neuromodulation Society