Aurora’s Precision Medicine Program—
critical move for the future

Precision Medicine—also called Personalized Medicine, Molecular Medicine and other
titles you’ve seen in the news—is an
important initiative moving forward at
Aurora Cancer Care. It was a major focus
of Joe Biden’s Moonshot program and is
highlighted in the $6.3 billion 21st Century
Cures bill. I want to take this opportunity
to explain its importance to the future of
cancer care.

In the past, beyond surgery and radiation
treatments, medical oncology therapy has
focused on cytotoxic chemotherapy. Oncologists have spoken
about chemotherapy for breast cancer, lung cancer, colon
cancer, etc. As the human genome project has given us more
insight into the molecular characteristics of cancer, It has been
shown—as most of us have suspected for some time—that each
one of these cancer types is made up of tumors with many
different genetic makeups. It also may be responsible for the
different response rates to different chemotherapy treatments
and may reflect the effect of treatment on genetic variants.
When we look at the molecular profile of a cancer, it turns
out that of 100 breast cancers, perhaps five will have a given
molecular profile. We also may find that two brain tumors, four
pancreatic cancers and two lung cancers have the same profile.
This becomes increasingly important as many of the new and
very expensive molecular treatments may be focused against
this molecular marker. Fortunately, if present, this link frequently
results in a very high response rate, and with that expectation,
the cost of testing and treatment becomes much more realistic
and appropriate for these patients. Therefore, precision
medicine crosses organ-specific treatment and now gives
options to those patients who have either failed conventional
treatment or for whom there was no effective treatment up
until now.

Aurora Cancer Care has moved into precision medicine in a
major way. Aurora started a weekly Precision Medicine Clinic on
March 17. Michael Thompson, MD, PhD, is leading this program
medically in collaboration with Jennifer Godden, PharmD. To
support this program, Aurora has launched a partnership with
Syapse, Inc., a company that provides the platform for us to
identify the molecular profiles of tumors and correlate this with
potential treatment options. Syapse, mentioned prominently
in the Moonshot program and the 21st Century Cures act, is
supporting the ASCO TAPUR program. It also moves the bar in
taking data from its participating constituents and can provide
response rates for patients with a given profile treated with

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a specific drug. This will be available long before the data is published—an important feature of the Moonshot goals—and also provides something that other systems, such as IBM’s Watson, cannot do. The clinic will be based in the Vince Lombardi Clinic at Aurora St. Luke’s Medical Center and will include system-wide participation of medical oncology, surgical oncology, radiation oncology, interventional oncology, molecular pathology, genetics, rehabilitation and others and will allow us to expedite the evaluation and treatment of these important patients.

We will be keeping you abreast of exciting new activities in Precision Medicine.

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**Advancing Precision Medicine**

Thanks to a generous donation from the Vince Lombardi Foundation, Aurora Cancer Care is one step closer to providing the best treatment for your cancer based on your tumor’s genetic features. After a thorough selection, Aurora Cancer Care welcomed Jennifer Godden, PharmD, in fall 2016 to co-lead the Precision Medicine program, which is linked with the Cardio-Oncology program and Molecular Oncology Program. Under her purview, the program will select patients who will most likely benefit from therapeutic immune modulation.

“I have always been very interested in learning about how drugs work and how they impact the body to fight disease. Precision medicine allows us to take it a step further and understand not only how the drug works but why it might work for some people but not for others. It is truly a fascinating area of study,” said Godden.

Godden joins Aurora from the University of Iowa. She had moved to Milwaukee in 2008 to complete her PGY-1 pharmacy practice residency at Aurora Health Care. She enjoyed her time in Milwaukee and decided to establish her career here. Godden’s husband, Jon, also a pharmacist, is on the advanced heart failure team at Aurora St. Luke’s.

The clinic opened March 17 and Godden is really excited for what’s to come. “The chance to learn more about the field of Oncology Precision Medicine while working with a great team to bring this service to the patients of Aurora Health Care is really a dream opportunity for a pharmacist,” said Godden.

Dawn Groshek is a Fund Development Officer with Aurora Health Care Foundation. Contact her to learn how you can support programs like this at dawn.groshek@aurora.org or call 414-649-6077.

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**DID YOU KNOW?**

**Aurora Cancer Care first in Wisconsin to perform new treatment for pancreas and liver cancer**

In January 2017, Aurora Cancer Care became the first center in Wisconsin to perform a new treatment method for pancreatic and liver cancers that has been shown to increase survival rates in patients with inoperable or unresectable tumors.

Surgeons at Aurora St. Luke’s Medical Center completed Wisconsin’s first surgery using the NanoKnife® Irreversible Electroporation (IRE) system, a procedure that uses electrical current to destroy cancerous tumors.

The breakthrough technology has been shown to double the survival rate in locally advanced and traditionally unresectable pancreatic cancers, according to a 2015 study in the Annals of Surgery.

To learn more about the cancer treatment options offered at Aurora Cancer Care, visit aurora.org/cancer.
Welcome new cancer care providers

Aurora Health Care is pleased to welcome Carolyn Firth, APNP, as she launches the Outpatient Anemia Clinic located inside the Aurora St. Luke’s Vince Lombardi Clinic. Carolyn is dedicated to excellence in the total care of anemia patients. Carolyn is a board-certified advanced practice nurse who has clinical experience in the perioperative setting, specializing in liver disease, transplant surgery and critical care.

Patients can be scheduled for outpatient appointments by their physician through the clinical office assistant at 414-649-6617. Appointments are available Thursdays and Fridays from 9 a.m. to 3 p.m.

Aurora Health Care also welcomes Nichelle Rothong, PhD. Nichelle uses an evidence-based, holistic, therapeutic approach to neuropsychological evaluation that is individually centered and culturally sensitive. She strives to create a supportive and collaborative assessment process whereby patients and their families learn about cognitive functioning and strategies to manage cognitive/cognitive-behavioral difficulties in everyday living.

As a licensed psychologist who specializes in neuropsychological evaluation, she provides comprehensive neuropsychological evaluation, cognitive rehabilitation, psychotherapy and inpatient consultation and liaison services to adult populations (ages 18 and older) through the Aurora Neuroscience Innovation Institute. Nichelle’s areas of interest include neuro-oncology; neurological conditions such as traumatic brain injury, stroke, dementia, Parkinson’s disease, multiple sclerosis and epilepsy; medical and mental health conditions that may impact cognition; rehabilitation psychology/neuropsychology; and psychotherapy.

Nichelle received an MS in counseling from Syracuse University and earned a PhD in counseling psychology from Marquette University. She completed an APA-accredited internship in clinical psychology at the VA St. Louis Health Care System in 2014, where she received training in neuropsychological evaluation, cognitive rehabilitation, rehabilitation psychology, health behavior interventions and psychotherapy with individuals with a wide range of complex mental health, medical and substance use disorders. Moreover, Nichelle completed a two-year APA-accredited residency in clinical neuropsychology at the VA St. Louis Health Care System in 2016. During residency, she specialized in neuropsychological assessment, cognitive rehabilitation, inpatient capacity evaluations and psychotherapy.

Partnering with neurosurgeons and otolaryngologists, Thomas A. Gardner, MD, treats neurosurgical/orbital disorders that require a multidisciplinary approach. He provides his patients with the best medical evaluation available by thoroughly discussing with them their options and helping them make the best possible treatment decisions for their health care goals and quality of life. Dr. Gardner treats the full spectrum of oculoplastic and neuro-ophthalmic disorders, including surgery for eyelid abnormalities and skin cancers, eye socket tumors, reconstruction and treatments for tearing or dry eye problems.

Treatments for neuro-ophthalmic disorders include eye muscle surgery, optic nerve fenestration and BOTOX® for eyelid spasms. His areas of special interest include orbital tumors, Graves’ disease and optic nerve surgery. Dr. Gardner received his medical degree at the University of Pennsylvania School of Medicine, Philadelphia, and attended residency at the University of Pittsburgh Eye and Ear Institute.

He completed a fellowship in neuro-ophthalmology and orbital disease with Jack Kennerdell, MD. Dr. Gardner is board-certified by the American Board of Ophthalmology, and in 2012 he was presented with the American Academy of Ophthalmology Achievement Award.
New medication for advanced ovarian cancer

New Drug Highlight—Rucaparib (Rubraca) is a new poly(ADP-ribose) polymerase (PARP) inhibitor approved for deleterious BRCA mutation (germline and/or somatic)-associated advanced ovarian cancer that has been treated with two or more chemotherapies. The recommended dose of Rucaparib is 600 mg orally twice daily with or without food. Treatment is continued until disease progression or unacceptable toxicity. Common side effects include fatigue, nausea, vomiting, anemia, abdominal pain, dysgeusia, constipation, decreased appetite, diarrhea, thrombocytopenia and dyspnea. Rucaparib is available from Aurora Specialty Pharmacy.

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<th>NEW DRUG</th>
<th>Indication</th>
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<td>Rucaparib (Rubraca)</td>
<td>Metastatic or locally advanced ovarian carcinoma</td>
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<tr>
<td>Olaratumab (Lartruvo)</td>
<td>Soft tissue sarcoma</td>
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NEW INDICATIONS

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<tr>
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<th>Metastatic head and neck squamous cell carcinoma</th>
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<td>Nivolumab (Opdivo)</td>
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Herbals/supplements and your chemotherapy

Wondering if you should continue taking your herbal or supplement medication with your chemotherapy? Most are just fine together, but there are some combinations you should avoid. Feel free to ask your Aurora Cancer Care Pharmacist if you have any concerns. The Aurora Cancer Care Pharmacists and Integrative Medicine departments recently created a reference they can use to check. If you do not have a pharmacist at your clinic, the nurses at the clinic can contact the pharmacist covering your clinic.

Team Phoenix: redefining cancer survivorship

We all know the importance of exercise; however, the average American doesn’t exercise enough, and cancer survivors exercise even less than the average American.

Team Phoenix is Aurora’s cancer survivor triathlon training team designed for women survivors of all ages, stages and fitness levels. The program is focused on empowering women to redefine survivorship by regaining physical fitness, endurance, strength and flexibility through training for a sprint-distance triathlon.

The 2017 program starts in late April with professional coaching, a volunteer medical team, a bike loan program and a team atmosphere of support and encouragement every swim, ride and step of the way.

Team Phoenix provides women with the skills to get through a triathlon. “I have found the impossible to become possible,” said a 2016 participant. “Cancer shakes that belief from you and you wonder if you will ever be the same. Team Phoenix didn’t just help me put me back together again, it made me better.”

For more information, email teamphoenix@aurora.org

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Aurora Cancer Care
3000 W. Montana Street
Milwaukee, WI 53215
414-647-3094 or 414-219-4531

Aurora Cancer Care Connection

The information presented in this newsletter is intended for general information and educational purposes. It is not intended to replace the advice of your own physician. Contact your physician if you believe you have a health problem.