Oncology Update

Summer 2020

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Carlene Springer, APRN; and
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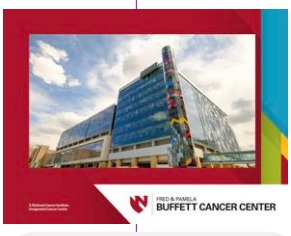
Mary Lanning HEALTHCARE
Morrison Cancer Center

A quarterly newsletter from Mary Lanning Healthcare's Morrison Cancer Center
Local and national cancer authority
The definition of excellence in a comprehensive, academic, community cancer program



This issue

Dr. Copur named to Buffett CAB

Dr. M. Sitki Copur, Morrison Cancer Center Hematologist/Oncologist, has been named to the Buffett Cancer Center Community Advisory Board.

The board met for the first time May 27. Dr. Copur and 17 other members from across the state met and proposed the following goals for the group:

- To understand and monitor the cancer incidence, mortality, determinants and disparities in Nebraska.
- To facilitate the conduct of research directly relevant to the needs in Nebraska, and improve access to clinical trials across the state.
- To engage and educate Nebraskans with the goal of reducing the burden of cancer and eliminating racial/socioeconomic disparities in access to high-quality cancer prevention, early detection and treatment across Nebraska.
- To promote translation of Buffett Cancer Center research with support from strong community partnerships to inform state cancer policies.

Buffett Cancer Center in Omaha is a National Cancer Institute (NCI)-designated cancer center. It is recognized for scientific leadership, resources and the depth and breadth of research in basic, clinical and/or prevention, cancer control and population science. NCI-designated cancer centers disseminate evidence-based findings to their own communities. The NCI cancer support grant requires cancer centers to identify and describe their catchment area and implement community outreach engagement for cancer research and training.

Other members of the advisory board are:

- Matt Beacom, Primary Care, Fremont
- Vince Bjorling, Medical Oncologist, Scottsbluff
- Teri Dameron, Ogalala Sioux Tribe
- Kylie Dockter, Team Jack Director
- Elizabeth Green, NE Comp. Cancer Control
- Jenna Sager, Lymphoma/Leukemia Society
- Andy Link, ACS North Region Health System
- Donna Polk, Nebraska Urban Health Coalition
- Sarah Rowland, Omaha Nation
- June Ryan, NC2-State Cancer Coalition
- Lisa Spellman, UNMC Public Relations
- Dino Verrelli, Project Purple
- Becca Weborg, Cattlemen's Ball
- Ann Yager, Susan G. Komen
- Mona Zuffante, Winnebago Tribe Public Health
- Todd Hlavaty, Radiation Oncologist, North Platte
- Sen. Mark Kolterman, Nebraska District 24

Neurosurgery-MCC team collaboration

Dr. Thomas Zusag, Morrison Cancer Center radiation oncologist, (left) and Dr. Scott Bell, Inspired Brain & Spine Surgery neurosurgeon, are pictured working together recently.

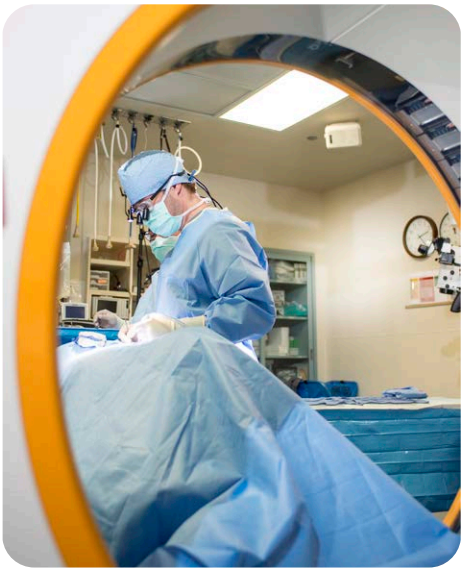
The Morrison Cancer Center recognizes Inspired Brain & Spine Surgery as a key part of the continued growth of high-quality cancer services in Hastings.

Inspired Brain & Spine Surgery was established to serve patients with neck, back, brain and peripheral nerve disorders. The clinic works with MCC to address the complicated needs of neuro-oncology patients. Services offered include initial diagnosis of benign and malignant brain tumors, elective and/or emergency surgical interventions, stereotactic radiation planning and treatments, Ommaya reservoir placement and resection of secondary metastatic tumors. Inspired Brain & Spine Surgery providers facilitate coordination of care with genetic counselor services for patients with inherited syndromes. They also participate in multidisciplinary oncology tumor board discussions.

Scott Bell, MD PhD MPH, leads the team, which also includes Kelli Poplau, PA-C, Paige Schwartz, RN, Danielle Nunnenkamp, MA, and Tonia Johnson, CNA/Med Aide.

Dr. Bell was born in Homestead, Florida, and grew up in Houston, Texas. He attended Hastings College for his undergraduate education. He received his PhD from Texas A&M University with research on the genetic regulation of blood vessel formation. Dr. Bell holds a Master's Degree in Public Health, also from Texas A&M. After his years in medical research, Dr. Bell matriculated at the University of Texas Medical School in San Antonio where he received his MD. He then returned to the midwest, completing his residency training in neurosurgery in Denver at the University of Colorado Health Sciences Center. He and his family then moved to Columbus, Georgia, where he practiced for four years. His connection to Hastings let him to begin a neurosurgery program at Mary Lanning Healthcare.

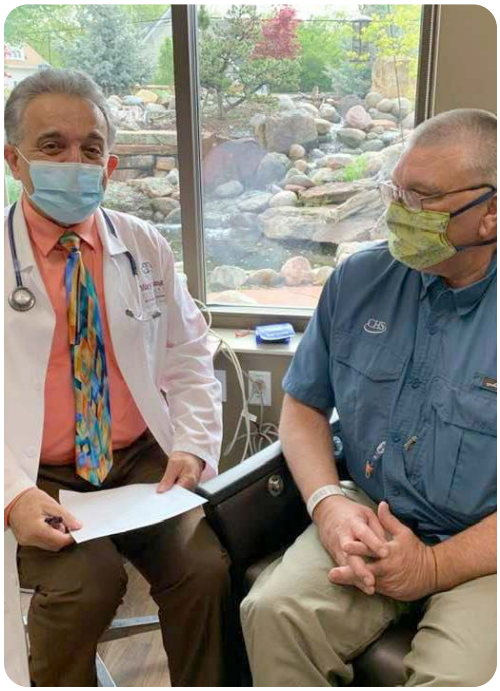
Dr. Bell said he looks forward to continuing to serve Hastings and surrounding communities with exceptional neurosurgical care.



Dr. Scott Bell is pictured in surgery with the intraoperative CT in the foreground.

Kelli Poplau was born and raised in Hastings. She earned her Bachelor of Arts Degree in Biology from Hastings College and completed her physician assistant education at Union College in Lincoln. She works with Dr. Bell in the hospital, clinic and operating room to provide patient care.

MCC attends virtual ASCO 2020 meeting



The Morrison Cancer Center contributed photos of staff in action during the COVID-19 pandemic for use in the ASCO 2020 virtual meeting.

Two Morrison Cancer Center abstracts were published online at this year's American Society of Clinical Oncology (ASCO) 2020 annual meeting.

ASCO, which was scheduled May 29 through June 2 in Chicago, was moved online this year due to the COVID-19 pandemic. The latest cancer science was delivered to the global community through a virtual format.

Meeting abstracts were published online and in the Journal of Clinical Oncology. The collaborative work of Dr. Copur was included on two topics, "Does Time to Treatment Initiation Affect Survival in Patients with Gallbladder Cancer" and "IMpower 150; Exploratory Efficacy Analysis in Patients with Bulky Disease."

ASCO offers scientific and educational events for oncology professionals, patient advocates, industry representatives and major medical outlets worldwide.

MCC takes part in ASCO Research Community Forum

As part of the ASCO Research Community Forum, Dr. M. Sitki Copur participated in a survey examining the impact of COVID-19 on clinical trials at academic and community-based oncology research sites.

The survey results, which were posted online and in the JCO Oncology Practice, showed that only a few weeks into the pandemic, 60 percent of research programs reported halting screening and/or enrollment for certain trials. More than two-thirds of survey respondents reported using remote visits to replace clinical trial visits. Research sites were facing challenges in organizing, implementing and conducting telehealth.

Respondents also reported a decline in patients' ability or willingness to come to the site, and limited availability of radiology, surgery, cardiology and other ancillary services essential for some clinical trials.

The article's authors call for the cancer research community to evaluate the impact of clinical trial protocol modifications, such as trials with expanded and/or flexible timelines and reduced data collection requirements, during the pandemic in order to determine if trials can safely continue once the pandemic has ended.

Dr. Copur contributed with a perspective article in the Cancer/Network Oncology journal.

MCC welcomes new dosimetrist

The Morrison Cancer Center recently added a dosimetrist to help in treatment planning for radiation therapy patients.

Brady Menke, CMD, works on CT scans and plans personal x-ray beam delivery for each patient. Originally from Hastings, Menke received his Bachelor's Degree in Physics from Hastings College. He then attended Loma Linda University in California to complete his dosimetry training. He worked in California for two years before returning to Hastings.

Dosimetrist Brady Menke, CMD, is shown at work at the Morrison Cancer Center.

"Radiation therapy is an important aspect of the treatment for patients with cancer," Menke said. "I am very happy and excited to be back in my hometown. It is such a blessing to be able to come back to Hastings and do something good and worthwhile for the community.

MCC oncology services continue despite COVID-19 pandemic

The Morrison Cancer Center has taken all necessary precautions to allow patients to continue their treatments during the recent pandemic in a safe way.

Dr. M. Sitki Copur said it is important for patients not to delay their treatments. That is why MCC is working so hard to keep patients safe when they come in.

As patients enter the building, an oncology nurse takes their temperatures and screens for symptoms and history of exposure.

Patients and staff are required to wear masks during their appointments. Masks are provided as needed. For long-term follow-up patients, telehealth is being used.

Hastings Tribune

hastingstribune.com Friday, April 24, 2020 $1.00

Oncology services at the Morrison Cancer Center are among the activities at Mary Lanning Healthcare that continue at full force despite the COVID-19 pandemic.

Continuing to serve

MARY LANNING HIGHLIGHTS SEVERAL KEY SERVICES AVAILABLE REGARDLESS OF VIRUS PRECAUTIONS

COVID-19 patient undergoing experimental plasma procedure

Fillmore County has 1st COVID-19 case confirmed

Ricketts warns of 'civil unrest' if meatpacking plants close

Dr. M. Sitki Copur is pictured outside of the Home Away From Home at 736 N. Kansas Avenue.

A little hospitality: The Home Away From Home

As the Morrison Cancer Center programs continue to grow, so does the need for a place for patients and their families to stay in Hastings.

The Home Away From Home, located across Kansas Avenue from MCC and Mary Lanning Healthcare, is a medical hospitality house. Since it opened in September 1999, the Home Away From Home, 736 N. Kansas Avenue, has played host to more than 18,000 guests with convenient overnight accommodations at affordable prices.

The home features five rooms with two twin beds and five suites with queen beds. Each room is fully furnished, including a television, desk and bath with shower. Common areas are located at the center of the home and include a kitchen, dining room and living room.

The Home Away From Home recently underwent a small renovation project, which provided a new look for common areas. The Mary Lanning Healthcare Foundation guided the renovation fund effort.

Families receiving treatment at Morrison Cancer Center are welcome to call 402-460-5858 to make reservations.

Inpatient oncology services continue 24/7 at MLH

Mary Lanning Healthcare works together with the Morrison Cancer Center providers so oncology patients receive the care they need at all times.

For the past year and a half, MCC has provided 24/7 patient access. By directly calling the oncology provider, coming to the Emergency Department or consulting with the MLH hospitalists, oncology providers are always ready to provide seamless care for inpatients.

This collaborative work allows the Emergency Department physicians and hospitalist team to provide oncology care in a timely manner.

The MCC team receives updates on inpatients and makes necessary adjustments so patients receive uninterrupted care. Patients have expressed great appreciation for this service.

New 'Ask the Expert' topics posted

The KHAS radio "Ask the Expert" segments for July, August and September can be found on the Mary Lanning website.

Topics for the quarter include Neuroendocrine Cancer for July, Small Intestinal Cancer for August and Thyroid Cancer for September. The interviews are broadcast the first Wednesday and third Friday of each month on KHAS (1230 AM) radio.

www.marylanning.org/our-services/cancer-care/in-the-news/

UNMC works with MCC to treat acute leukemia

Thanks to a close collaboration with the University of Nebraska Medical Center in Omaha, the Morrison Cancer Center has been able to offer treatment for acute myeloid leukemia patients.

Historically, patients with acute myeloid leukemia had to travel to be treated with intensive chemotherapy regimens requiring hospitalization at a tertiary care facility. This treatment can diminish quality of life and increase healthcare costs. With advances in molecular biology and the discovery of new targeted therapies, there has been a shift toward outpatient leukemia therapy.

This outpatient approach requires a multidisciplinary team, thorough patient evaluation, careful preparation and rigorous patient monitoring. Use of newer treatment approaches such as CPX-351 and ventoclax plus hypomethylating agents now make it possible to reduce prolonged hospitalization.

Once acute myeloid leukemia patients receive induction therapy at UNMC, or MCC provides lower intensity induction chemotherapy for eligible patients, much of their care takes place at MCC. UNMC provides bone marrow transplants. MCC collaborates with UNMC in the pre- and post-transplant care, reducing the time spent away from home.

The UNMC team includes Vijaya Bhatt, MD; Krishna Gundabolu, MBSS, Zaid Al-Khadimi, MD, and Lori Maness, MD.

Vijaya Bhatt, MD, is the UNMC Leukemia Program Medical Director.

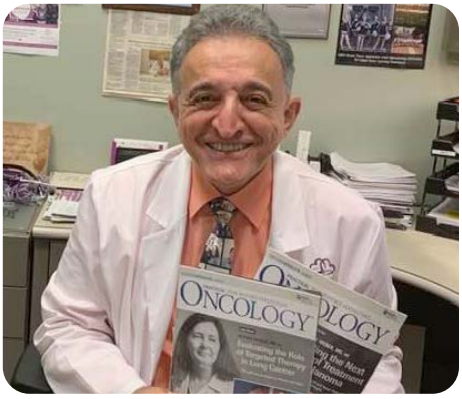
Copur named to Oncology Journal ed board

Dr. M. Sitki Copur recently was asked to serve as an Editorial Board member of the CancerNetwork Oncology Journal.

Dr. Copur initially served on the community editorial board of the journal. He was named Editor At Large at the ASCO 2019 Annual Meeting in Chicago. This year, he was offered full editorial board membership.

The Oncology Journal has been printed for more than 30 years and has a reputation as a trustworthy source of high-quality information. It features articles including Clinical Quandaries, How an Expert Approaches It, Comorbidity Consult and Point/Counterpoint, Case Studies, Reviews and more.

Dr. Copur will continue to contribute oncology literature with his work at MCC.



FDA hematology/oncology drug approvals since last issue

• FDA approved **nivolumab** (OPDIVO, Bristol-Myers Squibb Co.) for patients with unresectable advanced, recurrent or metastatic esophageal squamous cell carcinoma after prior fluoropyrimidine- and platinum-based chemotherapy. **June 10, 2020**

• FDA approved **ramucirumab** (CYRAMZA, Eli Lilly and Company) in combination with erlotinib for first-line treatment of metastatic non-small cell lung cancer (NSCLC) with epidermal growth factor receptor (EGFR) exon 19 deletions or exon 21 (L858R) mutations. **May 29, 2020**

• FDA approved **atezolizumab** in combination with **bevacizumab** (TECENTRIQ and AVASTIN, Genentech Inc.) for patients with unresectable or metastatic hepatocellular carcinoma who have not received prior systemic therapy. **May 29, 2020**

• FDA approved the combination of **nivolumab** (OPDIVO, Bristol-Myers Squibb Co.) plus **ipilimumab** (YERVOY, Bristol-Myers Squibb Co.) and 2 cycles of platinum-doublet chemotherapy as first-line treatment for patients with metastatic or recurrent non-small cell lung cancer (NSCLC), with no epidermal growth factor receptor (EGFR) or anaplastic lymphoma kinase (ALK) genomic tumor aberrations. **May 26, 2020**

• FDA approved **brigatinib** (ALUNBRIG, ARIAD Pharmaceuticals Inc.) for adult patients with anaplastic lymphoma kinase (ALK)-positive metastatic non-small cell lung cancer (NSCLC) as detected by an FDA-approved test. **May 22, 2020**

Continued on page 8

Peer-reviewed publications since last issue

• **Copur, M.S., Wedel, W.** Diffuse Large Cell Lymphoma of the Leg. Image IQ Oncology (Williston Park). 2020 Mar 34(3) **(Published).**

• **Copur, M.S.,** Alpelesib to Treat Breast Cancer. Drugs of Today 2020, 56(6):357-363.**(Published).**

• **Copur, M.S., Horn, A., Allen, J., Springer. C., Zusag, T.** Primary Small Cell Carcinoma of the Lung Presenting with Breast Metastasis Oncology (Williston Park) 2020 April;34(4):120-124. **(Published).**

• Islam, K.M., Odhiambo, L.A., Ansa, B., **Copur MS** et al. Does time to treatment initiation affect survival in patients with gallbladder cancer? J Clin Oncol 2020; 38: suppl: abstr.e16600. **(Published).**

• Jotte, R.M., Batus, M., Bernicker, E., **Copur, M.S.** et al. IMpower 150: exploratory efficacy analysis in patients with bulky disease. J Clin Oncol 2020; 38: suppl:abstr.e21637. **(Published).**

• Dasari, A., Morris, V., Allegra, C.J.,Benson, A., Boland,P., Chung, K., **Copur, M.S.** et al. Circulating Tumor DNA Applications and Integration in Colorectal Cancer: An NCI Colon & Rectal-Anal Task Forces Whitepaper. Nature Reviews Clinical Oncology. **(In press).**

• Sohal, D.P.S., Kennedy, E., Cinar, P., Conroy, T., **Copur, M.S.** et al. Metastatic Pancreatic Cancer: ASCO Guideline Update J Clin Oncol 2020 **(In press).**

• **Copur, M.S.,** Tallmon, G., **Wedel, W.,** Hart, J., Merani, S., Vargas, L. Hereditary vs Familial Pancreatic Cancer; Associated Genetic Syndromes and Clinical Perspective. Oncology (Williston Park). 2020 **(In press).**

• **Copur, M.S..** Ineptitude of Clinical Trials System Highlighted by COVID-19 Pandemic. Perspective Article. Oncology (Williston Park). 2020. **(Accepted for publication).**

• **Copur, M.S.,** Vargas, L., Shaheed, M. Atezolizumab plus Bevacizumab in Hepatocellualr Carcinoma. N Engl J Med 2020. **(Submitted for publication).**

• **Copur, M.S.,** Cushman-Vokoun, A.M., Delaney, A., Padussis, J., **Wedel ,W.,** Lauer, S., Talmon. Locally Advanced Gastrointestinal Stromal Tumor in a 33-Year Old Woman Desirous to Have Children. Oncology (Williston Park). 2020 **(Submitted for publication).**

• **Copur, M.S..** ASCO 2020 ASCO Gastrointestinal Cancer Presentations. Oncology 2020 **(Submitted for publication).**

Pembrolizumab or placebo plus Eptoside and Platinum as first-line therapy for extensive stage small-cell lung cancer: Randomized, double-blind, Phase III KEYNOTE-604 Study

This randomized, double-blind, phase III KEYNOTE-604 study compared pembrolizumab plus etoposide and platinum (EP) with placebo plus EP for patients with previously untreated extensive-stage (ES) SCLC.

Eligible patients were randomly assigned 1:1 to pembrolizumab 200 mg once every 3 weeks or saline placebo for up to 35 cycles plus 4 cycles of EP. Of the 453 participants, 228 were randomly assigned to pembrolizumab plus EP and 225 to placebo plus EP. Pembrolizumab plus EP significantly improved Progression Free Survival (PFS).

Twelve-month PFS estimates were 13.6% with pembrolizumab plus EP and 3.1% with placebo plus EP. Although pembrolizumab plus EP prolonged OS, the significance threshold was not met (HR, 0.80; 95% CI, 0.64 to 0.98; P = .0164).

Twenty-four-month OS estimates were 22.5% and 11.2%, respectively. ORR was 70.6% in the pembrolizumab plus EP group and 61.8% in the placebo plus EP group; the estimated proportion of responders remaining in response at 12 months was 19.3% and 3.3%, respectively. Pembrolizumab plus EP significantly improved PFS compared with placebo plus EP as first-line therapy for patients with ES-SCLC. No unexpected toxicities were seen with pembrolizumab plus EP. These data support the benefit of pembrolizumab in ES-SCLC.

Reference: Rudin CM, Awad MM, Navarro A et al. Pembrolizumab or Placebo Plus Etoposide and Platinum as First-Line Therapy for Extensive-Stage Small-Cell Lung Cancer: Randomized, Double-Blind, Phase III KEYNOTE-604 Study Clin Oncol 2020;38: DOI: 10.1200/JCO.20.00793 Journal of Clinical Oncology.

FDA hematology/oncology drug approvals since last issue

Continued from page 6

• FDA approved **olaparib** (LYNPARZA, AstraZeneca Pharmaceuticals, LP) for adult patients with deleterious or suspected deleterious germline or somatic homologous recombination repair (HRR) gene-mutated metastatic castration-resistant prostate cancer (mCRPC), who have progressed following prior treatment with enzalutamide or abiraterone. **May 19, 2020**

• FDA approved **atezolizumab** (TECENTRIQ®, Genentech Inc.) for the first-line treatment of adult patients with metastatic non-small cell lung cancer (NSCLC) whose tumors have high PD-L1 expression (PD-L1 stained ≥ 50% of tumor cells (TC ≥ 50%) or PD-L1 stained tumor-infiltrating immune cells (IC) covering ≥ 10% of the tumor area (IC ≥ 10%)), with no EGFR or ALK genomic tumor aberrations. **May 18, 2020**

• FDA approved **ripretinib** (QINLOCK, Deciphera Pharmaceuticals, LLC.), for adult patients with advanced gastrointestinal stromal tumor (GIST) who have received prior treatment with 3 or more kinase inhibitors, including imatinib. **May 15, 2020**

• FDA granted accelerated approval to **rucaparib** (RUBRACA, Clovis Oncology, Inc.) for patients with deleterious BRCA mutation (germline and/or somatic)-associated metastatic castration-resistant prostate cancer (mCRPC) who have been treated with androgen receptor-directed therapy and a taxane-based chemotherapy. **May 15, 2020**

• FDA approved the combination of **nivolumab** (OPDIVO, Bristol-Myers Squibb Co.) plus **ipilimumab** (YERVOY, Bristol-Myers Squibb Co.) as first-line treatment for patients with metastatic non-small cell lung cancer whose tumors express PD-L1(≥1%), as determined by an FDA-approved test, with no epidermal growth factor receptor (EGFR) or anaplastic lymphoma kinase (ALK) genomic tumor aberrations. **May 15, 2020**

• FDA expanded the indication of **pomalidomide** (POMALYST, Celgene Corporation) to include treating adult patients with AIDS-related Kaposi sarcoma after failure of highly active antiretroviral therapy and Kaposi sarcoma in adult patients who are HIV-negative. **May 14, 2020**

• FDA expanded the indication of **olaparib** (LYNPARZA®, AstraZeneca Pharmaceuticals, LP) to include its combination with bevacizumab for first-line maintenance treatment of adult patients with advanced epithelial ovarian, fallopian tube, or primary peritoneal cancer who are in complete or partial response to first-line platinum-based chemotherapy and whose cancer is associated with homologous recombination deficiency positive status defined by either a deleterious or suspected deleterious BRCA mutation, and/or genomic instability. **May 8, 2020**

• FDA granted accelerated approval to **selpercatinib** (RETEVMO, Eli Lilly and Company) for the following indications: Adult patients with metastatic RET fusion-positive non-small cell lung cancer (NSCLC);and advanced or metastatic RET-mutant medullary thyroid cancer (MTC). **May 8, 2020**

• FDA granted accelerated approval to **capmatinib** (TABRECTA, Novartis) for adult patients with metastatic non-small cell lung cancer (NSCLC) whose tumors have a mutation that leads to mesenchymal-epithelial transition (MET) exon 14 skipping as detected by an FDA-approved test. **May 6, 2020**

• FDA approved **daratumumab** and **hyaluronidase-fihj** (DARZALEX FASPRO, Janssen Biotech, Inc.) for adult patients with newly diagnosed or relapsed/refractory multiple myeloma. **May 1, 2020**

• FDA approved **niraparib** (ZEJULA, GlaxoSmithKline) for the maintenance treatment of adult patients with advanced epithelial ovarian, fallopian tube, or primary peritoneal cancer who are in a complete or partial response to first-line platinum-based chemotherapy. April 29, 2020

• FDA granted accelerated approval to a new dosing regimen of 400 mg every six weeks for **pembrolizumab** (KEYTRUDA, Merck) across all currently approved adult indications, in addition to the current 200 mg every three weeks dosing regimen. **April 28, 2020**.

• FDA granted accelerated approval to **sacituzumab govitecan-hziy** (TRODELVY, Immunomedics, Inc.) for adult patients with metastatic triple-negative breast cancer who received at least two prior therapies for metastatic disease. **April 22, 2020**

• FDA expanded the indication of **ibrutinib** (IMBRUVICA, Pharmacyclics LLC) to include its combination with rituximab for the initial treatment of adult patients with chronic lymphocytic leukemia (CLL) or small lymphocytic lymphoma (SLL). **April 21, 2020.**

• FDA granted accelerated approval to **pemigatinib** (PEMAZYRE, Incyte Corporation) for the treatment of adults with previously treated, unresectable locally advanced or metastatic cholangiocarcinoma with a fibroblast growth factor receptor 2 (FGFR2) fusion or other rearrangement as detected by an FDA-approved test. **April 20, 2020**

• FDA approved **tucatinib** (TUKYSA, Seattle Genetics, Inc.) in combination with trastuzumab and capecitabine, for adult patients with advanced unresectable or metastatic HER2-positive breast cancer, including patients with brain metastases, who have received one or more prior anti-HER2-based regimens in the metastatic setting. **April 17, 2020**

• FDA approved **mitomycin** (JELMYTO™, UroGen Pharma) for adult patients with low-grade upper tract urothelial cancer (LG-UTUC). **April 15, 2020**

• FDA approved **selumetinib** (KOSELUGO, AstraZeneca) for pediatric patients, 2 years of age and older, with neurofibromatosis type 1 (NF1) who have symptomatic, inoperable plexiform neurofibromas (PN). **April 10, 2020**

• FDA approved **encorafenib** (BRAFTOVI, Array BioPharma Inc.) in combination with cetuximab for the treatment of adult patients with metastatic colorectal cancer (CRC) with a BRAF V600E mutation, detected by an FDA-approved test, after prior therapy. **April 8, 2020**

• FDA approved **luspatercept-aamt** (REBLOZYL, Celgene Corporation) for the treatment of anemia failing an erythropoiesis stimulating agent and requiring two or more red blood cell (RBC) units over eight weeks in adult patients with very low- to intermediate-risk myelodysplastic syndromes with ring sideroblasts (MDS-RS) or with myelodysplastic/myeloproliferative neoplasm with ring sideroblasts and thrombocytosis (MDS/MPN-RS-T). **April 3, 2020**

Atezolizumab plus Bevacizumab in unresectable hepatocellular carcinoma

The combination of atezolizumab and bevacizumab showed encouraging antitumor activity and safety in a phase 1b trial involving patients with unresectable hepatocellular carcinoma.

In a global, open-label, phase 3 trial, patients with unresectable hepatocellular carcinoma who had not previously received systemic treatment were randomly assigned in a 2:1 ratio to receive either atezolizumab plus bevacizumab or sorafenib until unacceptable toxic effects occurred or there was a loss of clinical benefit. The coprimary end points were overall survival and progression-free survival in the intention-to-treat population.

The intention-to-treat population included 336 patients in the atezolizumab–bevacizumab group and 165 patients in the sorafenib group. At the time of the primary analysis, the hazard ratio for death with atezolizumab–bevacizumab as compared with sorafenib was 0.58 (95% confidence interval (CI), 0.42 to 0.79; P<0.001).

Overall survival at 12 months was 67.2% with atezolizumab–bevacizumab versus 54.6% with sorafenib. Median progression-free survival was 6.8 months versus 4.3 months. Grade 3 or 4 adverse events occurred in 56.5% of 329 patients who received at least one dose of atezolizumab–bevacizumab and in 55.1% of 156 patients who received at least one dose of sorafenib.

Grade 3 or 4 hypertension occurred in 15.2% of patients in the atezolizumab–bevacizumab group; however, other high-grade toxic effects were infrequent. In patients with unresectable hepatocellular carcinoma, atezolizumab combined with bevacizumab resulted in better overall and progression-free survival outcomes than sorafenib.

Reference: Finn RS, Qin S, Ikeda M et al. Atezolizumab plus Bevacizumab in Unresectable Hepatocellular Carcinoma. N Engl J Med 2020; 382:1894-1905.

Intracranial efficacy and survival with Tucatinib plus Trastuzumab and Capecitabine for previously treated HER2-Postive breast cancer with brain metastases in the HER2CLIMB trial

In the HER2CLIMB study, patients with human epidermal growth factor receptor 2 (HER2)–positive breast cancer with brain metastases (BMs) showed statistically significant improvement in progression-free survival (PFS) with tucatinib.

In this study, patients were randomly assigned 2:1 to tucatinib or placebo, in combination with trastuzumab and capecitabine. All patients underwent baseline brain magnetic resonance imaging; those with BMs were classified as active or stable. Efficacy analyses were performed by applying RECIST 1.1 criteria to CNS target lesions by investigator assessment. CNS-PFS (intracranial progression or death) and overall survival (OS) were evaluated in all patients with BMs. Confirmed intracranial objective response rate (ORR-IC) was evaluated in patients with measurable intracranial disease. There were 291 patients with BMs: 198 (48%) in the tucatinib arm and 93 (46%) in the control arm.

The risk of intracranial progression or death was reduced by 68% in the tucatinib arm (hazard ratio (HR), 0.32; 95% CI, 0.22 to 0.48; P < .0001). Median CNS-PFS was 9.9 months in the tucatinib arm versus 4.2 months in the control arm. Risk of death was reduced by 42% in the tucatinib arm (OS HR, 0.58; 95% CI, 0.40 to 0.85; P = .005). Median OS was 18.1 versus 12.0 months. ORR-IC was higher in the tucatinib arm (47.3%; 95% CI, 33.7% to 61.2%) versus the control arm (20.0%; 95% CI, 5.7% to 43.7%; P = .03). In patients with HER2-positive breast cancer with BMs, the addition of tucatinib to trastuzumab and capecitabine doubled ORR-IC, reduced risk of intracranial progression or death by two thirds, and reduced risk of death by nearly half. This is the first regimen to demonstrate improved antitumor activity against BMs in patients with HER2-positive breast cancer in a randomized, controlled trial.

Reference: Lin NU, Borges V, Anders C et al. Intracranial Efficacy and Survival with Tucatinib Plus Trastuzumab and Capecitabine for Previously Treated HER2-Positive Breast Cancer with Brain Metastases in the HER2CLIMB Trial J Clin Oncol 2020;38 DOI: 10.1200/JCO.20.00775 Journal of Clinical Oncology

Potentially Practice Changing DATA

Nivolumab + Ipilimumab vs. platinum-doublet chemotherapy as first-line treatment for advanced non-small cell lung cancer: Three year update from CheckMate 227 part 1

Patients with stage IV / recurrent NSCLC and PD-L1 ≥ 1% (n = 1189) were randomized 1:1:1 to nivolumab (3 mg/kg every 2 weeks) plus ipilimumab (1 mg/kg every 6 weeks), nivolumab (240 mg every 2 weeks) alone, or chemotherapy.

Patients with PD-L1 < 1% (n = 550) were randomized to nivolumab plus ipilumumab, nivolumab (360 mg every 3 weeks) plus chemotherapy or chemotherapy alone. Primary endpoint was Overall Survival (OS) with nivolumab plus ipilimumab vs chemo in patients with PD-L1 ≥ 1%. After a median follow-up of 43.1 months patients with PD-L1 ≥ 1% continued to derive OS benefit from nivo+ipi vs chemo. 3-year OS rates were 33% (nivo+ipi), 29% (nivo), and 22% (chemo).

At 3 years, 18% of pts with PD-L1 ≥ 1% treated with nivo+ipi remained progression-free vs 12% with nivo and 4% with chemo; 38% of confirmed responders remained in response in the nivo+ipi arm at 3 y vs 32% in the nivo arm and 4% in the chemo arm. In pts with PD-L1 < 1%, 3-y OS rates were 34% (nivo+ipi), 20% (nivo + chemo), and 15% (chemo); 13%, 8%, and 2% of pts remained progression-free; and 34%, 15%, and 0% of confirmed responders remained in response, respectively. Patients with PD-L1 ≥ 1% with either CR/PR at 6 month had longer subsequent OS with nivo+ipi vs chemo; patients with SD or PD at 6 month had generally similar subsequent OS between treatments. With 3 year minimum follow-up, nivo+ipi continued to provide durable and long-term OS benefits vs chemo for pts in first line NSCLC. Patients with PD-L1 ≥ 1% who achieved CR/PR at 6 months had marked OS benefit with nivo+ipi vs chemo. No new safety signals were identified for nivo+ipi.

Reference: Ramalingam SS, Ciuleanu TE, Pluzanski A et al. Nivolumab + ipilimumab versus platinum-doublet chemotherapy as first-line treatment for advanced non-small cell lung cancer: Three-year update from CheckMate 227 Part 1. J Clin Oncol 38: 2020 (suppl; abstr 9500)

NEBRASKAN *at heart*

Right: Carlene Springer, APRN, and members of her family enjoy a visit to the Prairie Loft near Hastings. Below: Dr. Thomas Zusag chats with a neighbor while walking his dogs. Below right: Members of the Morrison Cancer Center team attend the Pink Volleyball Night fundraiser at Hastings College in 2019. The fundraiser is just one way MCC staff and physicians work with the community in the fight against cancer.

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