Oncology Update

SPRING 2022

Mary Lanning HEALTHCARE
Morrison Cancer Center

M. Sitki Copur, MD FACP,
Medical Director

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.

MCC receives Buffett grant; plans for proposed program

The Morrison Cancer Center in January received a $5,000 Community Health Grant.

The grant, from the Fred & Pamela Buffett Cancer Center Community Outreach & Engagement Committee, was given to support new and existing projects at MCC.

MCC's proposal to the committee was "Implementation of a Lung Cancer Screening Program in Rural Central Nebraska."

Since receiving the grant, the MCC team has been busy bringing together MLH departments — including Diagnostic Imaging, Radiology and Information Technology Services — on the proposed project.

Remaining objectives prior to implementation of the program are Mary Lanning provider education on recent lung screening guideline changes, ITS software implementation in conjunction with Power-Scribe Software and marketing to the public.

The software for the lung cancer screening tool will provide the nurse navigator with quick and easily accessible information on lung nodule screening exams performed through MLH.

This will ensure proper follow-up care and specialty physician appointments as recommended per the American Lung Association guidelines for low-dose computed tomography lung screening.

Details will come later on the proposed summer of 2022 start of the program.

The Fred & Pamela Buffett Cancer Center Community Outreach & Engagement Committee

Dave Jones, MCC Director

has teamed up with various community partners to develop and implement cancer outreach activities and recently launched the Community Health Grants.

The grants support new and existing projects facilitating cancer prevention and control activities conducted by a community organization.

MCC at the Midwest Ambassador Summit

Dr. M. Sitki Copur represented the Morrison Cancer Center at the 2022 American Cancer Society Cancer Action Network summit in January.

The event, which took place online, involved more than 75 advocates and special guests from several states, including Nebraska, Illinois, Kansas and Missouri.

Discussion topics included federal campaigns and priorities, grassroots tactics, health equity, volunteer resources and fundraising opportunities.

Matt Prokop, Senior Grassroots Manager for Nebraska and Kansas, talked about volunteer resources and shared links for websites including: https://www.fightcancer.org/states/nebraska.

A recording of the summit can be found at https://youtu.be/4HCgemd4iCw

New officers for MCC Cancer Committee

The MCC Cancer Committee in February recognized new physician role appointments.

Dr. Caleb Schroeder, who has served as Cancer Committee Chairman since 2019, passed the baton to Dr. Scott Bell.

Dr. Adam Horn, Cancer Liaison Physician since 2014, passed his position on to Dr. Shellie Faris.

The committee expressed its heartfelt appreciation to Dr. Schroeder and Dr. Horn for their dedication and service to the program. Both Dr. Bell and Dr. Faris have been part of the cancer program. The committee congratulated and thanked them for accepting their new leadership roles.

The MCC Cancer Committee is made up of physicians and healthcare professionals from Mary Lanning Healthcare and community partners from the South Heartland District Health Department and the American Cancer Society.

Schroeder

Bell

Horn

Faris

Each quarter, the MCC Cancer Committee meets to ensure all cancer program-related activities and responsibilities follow standards set forth by the Commission on Cancer (CoC).

First accredited by the Commission on Cancer in 1990, MCC has received approvals with commendations every three years since its original approval. This makes MCC one of the top 5% of cancer programs in the nation to reach the highest level of recognition. As a CoC accredited program, MCC adheres to national standards to provide comprehensive, patient-centered care.

MCC receives CAB award

On behalf of the Morrison Cancer Center, Dr. M. Sitki Copur recently accepted an award for the commitment and effort of MCC toward the Community Advisory Board (CAB) of the Fred & Pamela Buffett Cancer Center.

The CAB held a priority setting session in December 2021. During the meeting, small focus groups identified potential topics and action items, followed by review of notes of potential priorities.

Surveys were conducted to see if, and what, partner organizations are already doing to address the priority items to avoid overlapping COE efforts with those of other organizations. Dr. Copur served on the clinical trials focus group and provided feedback on the topic.

The CAB meets quarterly to make recommendations to enhance research in Nebraska and identify, recommend and assist in implementing initiatives that address barriers experienced by patients, referring physicians and other referral services.

New employee joins MCC team

With several years of nursing experience, Tessa Tielbar joined the Morrison Cancer Center team in February.

Tielbar graduated from the University of Nebraska Medical Center College of Nursing in 2015. She lived in Lincoln, working at Bryan Medical Center West for five years. She worked in inpatient rehabilitation, medical/surgery/oncology and Post-Anesthesia Care Unit (PACU).

She and her husband, J.D., moved to Hastings in late 2020, and she worked at Grand Island Regional Medical Center in the PACU.

"I was always drawn to oncology nursing," Tielbar said. "When I worked in post-op, most patients were in and out. Through my experience with rehab patients, I realized that I liked having continuity with patients. I am so excited to be a part of the MCC family, and I am eager to grow and learn with everyone."

Tielbar has her hands full at home with three dogs, two cats and more than 100 houseplants.

Tessa Tielbar, RN BSN

MCC taking part in themednet

The Morrison Cancer Center has been invited to be actively involved in themednet, which provides feedback to the oncology community.

Themednet is a physician-only community where expert answers are given to real-world oncology-related questions. The platform helps oncology physicians get answers when there is no clear guideline or published research.

Questions on themednet are assigned to the most qualified experts. Academic physicians from every cancer center in the United States answer questions from other physicians. The answers are peer-reviewed by colleagues. All answers are indexed and searchable so that every physician can quickly access expert knowledge to provide their patients with high-quality care.

More than 1,000 experts have been recruited based on their research, publications, case volume, clinical trials and peer recommendations.

Mehmet Sitki Copur, MD
Medical Director/ Professor
Mary Lanning Healthcare Morrison Cancer Center/University of Nebraska Medical Center Adjunct Faculty

Summary
Answers Viewed: 19
Total Views: 5578
People Reached: 1528
Institutions Reached: 1148

MCC contributes to popular oncology book

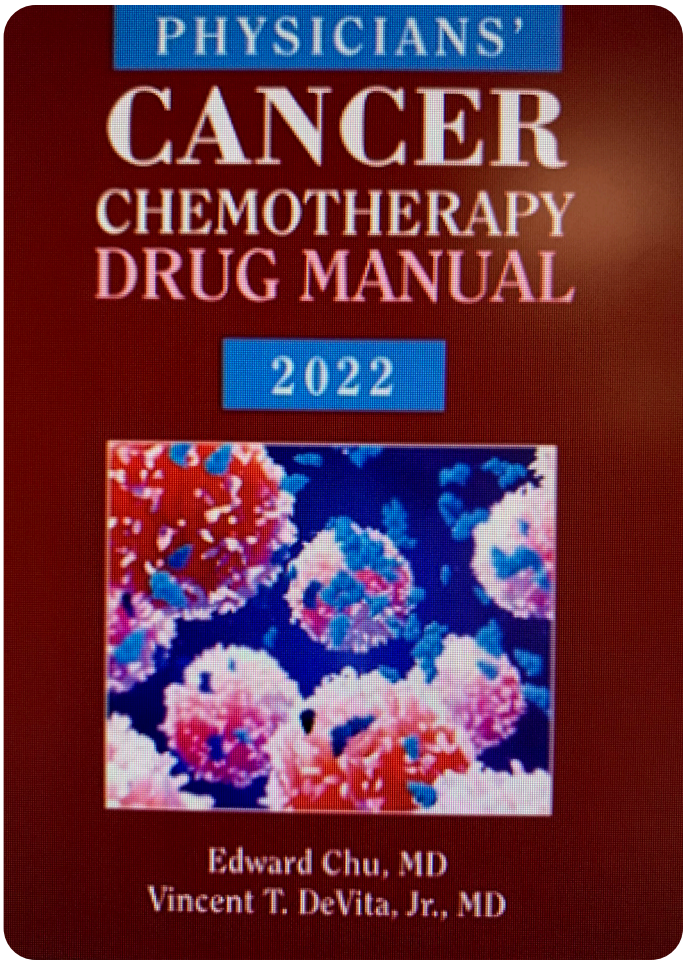
The Morrison Cancer Center is listed as a contributing institution to the 2022 Physicians' Cancer Chemotherapy Drug Manual.

Completely revised and updated for 2022, the manual is an up-to-date guide to the latest information on standard therapy and recent advances in oncology.

Written by world-class experts in clinical cancer therapeutics, this essential reference book provides a complete, easy-to-use catalog of commonly used drug regimens — both on- and off-label — for the treatment of all major cancers.

The 2022 update includes the addition of 17 new agents and 18 new supplemental indications, all of which have been FDA approved within the last year.

Dr. M. Sitki Copur has been a contributing editor to the publication since the book was first published in 2000.



Staff highlight: Nurse Navigator

Timely access to care and alleviating patient stress are the goals of the nurse navigation program at the Morrison Cancer Center.

With 23 years of oncology experience, MCC Nurse Navigator Chandra Muske, RN OCN, knows exactly what to do to help patients navigate the complicated world of cancer treatment.

Muske and the MCC team seek to eliminate barriers to timely care and connect patients and their families to the services they need.

"With navigation, significant improvements can be accomplished in interval time to biopsy, pathologic diagnosis, oncology visit, first treatment and frequency of ancillary consults," Muske said. "My role is to help patients navigate throughout the cancer journey and alleviate the stress and anxiety that may occur."

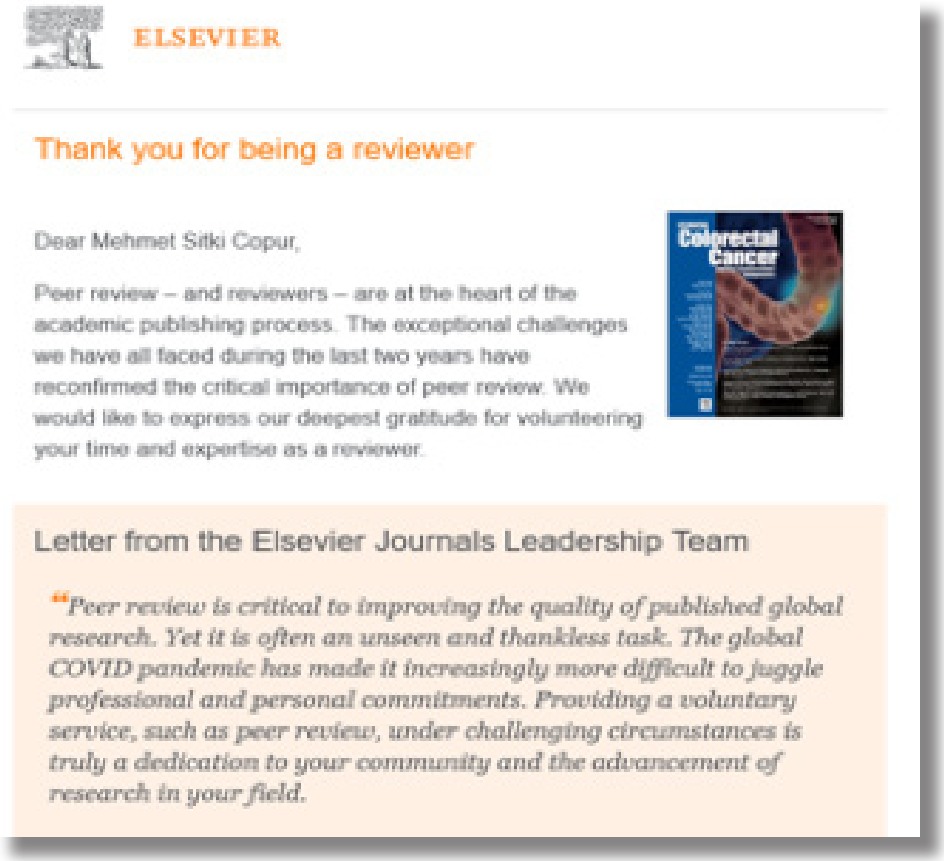
With Chandra's help, the Morrison Cancer Center is able to offer a dedicated, community-based nurse navigation program.

Dr. M. Sitki Copur said, "Thanks to Chandra and our exemplary oncology team, MCC Core Navigation Metrics are significantly better, enhancing cancer care of our patients."

Chandra Muske, RN OCN

MCC recognized for peer review

Elsevier journals' leadership team recently sent a thank you message to the Morrison Cancer Center for providing peer review services during the challenging COVID-19 pandemic.



ELSEVIER

Thank you for being a reviewer

Dear Mehmet Sitki Copur,

Peer review – and reviewers – are at the heart of the academic publishing process. The exceptional challenges we have all faced during the last two years have reconfirmed the critical importance of peer review. We would like to express our deepest gratitude for volunteering your time and expertise as a reviewer.

Letter from the Elsevier Journals Leadership Team

"Peer review is critical to improving the quality of published global research. Yet it is often an unseen and thankless task. The global COVID pandemic has made it increasingly more difficult to juggle professional and personal commitments. Providing a voluntary service, such as peer review, under challenging circumstances is truly a dedication to your community and the advancement of research in your field.

MCC contributes to bill's passage

President Joe Biden is soon expected to sign into law the Fiscal Year (FY) 2022 omnibus funding bill, which provides funding for all federal agencies through September 30, 2022. The bill was passed by the U.S. House of Representatives and the U.S. Senate during the week of March 7, 2022.

The bill significantly increases funding for the National Cancer Institute (NCI) to help advance our nation's work toward combating, and ultimately curing, cancer. The bill provides $6.9 billion for the NCI – an increase of $353 million over FY2021 – including full funding for the Cancer Moonshot initiative. Congress also provided $45 billion for the National Institutes of Health (NIH) – an increase of $2.25 billion over FY2021—including a boost of $50 million specifically for health disparities research. The American Society for Clinical Oncology (ASCO) commends Congress for their enthusiastic, bipartisan support for continued investment in biomedical research.

As part of collaborative work with ACS CAN, MCC submitted a letter of support for the budget bill that increases funding for cancer research.

"MCC is proud to be one of the thousands of ACS CAN volunteers who raised their voices to help make this happen," said M. Sitki Copur, MD. "As a local and national leader in cancer care, MCC will continue to fight toward making cancer history."

Abstract submitted for ASCO 2022

The Morrison Cancer Center this year again submitted an abstract to the largest oncology convention in the world.

The American Society of Clinical Oncology (ASCO) annual meeting is in June in Chicago.

The MLH Pathology Department and the Morrison Cancer Center submitted data on Ki67 and oncotype Dx Recurrence Score in early-stage hormone receptor-positive breast cancer patients.

FDA hematology/oncology drug approvals since last issue

The FDA approved **pembrolizumab** (Keytruda, Merck), as a single agent, for patients with advanced endometrial carcinoma that is microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR), as determined by an FDA-approved test, who have disease progression following prior systemic therapy in any setting and who are not candidates for curative surgery or radiation. **March 21, 2022**.

The FDA approved **nivolumab** and **relatlimab-rmbw** (Opdualag, Bristol-Myers Squibb Company) for adult and pediatric patients 12 years of age or older with unresectable or metastatic melanoma. **March 18, 2022.**

The FDA approved **olaparib** (Lynparza, AstraZeneca Pharmaceuticals, LP) for the adjuvant treatment of adult patients with deleterious or suspected deleterious germline BRCA-mutated (gBRCAm) human epidermal growth factor receptor 2 (HER2)-negative high-risk early breast cancer who have been treated with neoadjuvant or adjuvant chemotherapy. **March 11, 2022.**

The FDA approved **nivolumab** (Opdivo, Bristol-Myers Squibb Company) with platinum-doublet chemotherapy for adult patients with resectable non-small cell lung cancer (NSCLC) in the neoadjuvant setting. **March 4, 2022.**

The FDA approved **ciltacabtagene autoleucel** (CARVYKTI, Janssen Biotech, Inc.) for the treatment of adult patients with relapsed or refractory multiple myeloma after four or more prior lines of therapy, including a proteasome inhibitor (PI), an immunomodulatory agent (IMiD), and an anti-CD38 monoclonal antibody. **February 28, 2022.**

The FDA approved **tebentafusp-tebn** (Kimmtrak, Immunocore Limited), a bispecific gp100 peptide-HLA-directed CD3 T cell engager, for HLA-A*02:01-positive adult patients with unresectable or metastatic uveal melanoma. **January 25, 2022.**

The FDA approved **abatacept** (Orencia, Bristol-Myers Squibb Company) for the prophylaxis of acute graft versus host disease (aGVHD), in combination with a calcineurin inhibitor (CNI) and methotrexate (MTX), in adults and pediatric patients 2 years of age and older undergoing hematopoietic stem cell transplantation (HSCT) from a matched or 1 allele-mismatched unrelated donor. **December 15, 2021.**

New ‘Ask the Expert’ topics posted

The KHAS radio “Ask the Expert” segments for January, February and March can be found on the Mary Lanning website.

Topics for this quarter included sarcoma for January, prostate cancer for February and liver cancer for March. The interviews are broadcast on the first Wednesday and last Friday of each month on KHAS radio (1230 AM).

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

Potentially Practice Changing DATA

Blood-based biomarker panel for personalized lung cancer risk assessment

To investigate whether a panel of circulating protein biomarkers would improve risk assessment for lung cancer screening in combination with a risk model on the basis of participant characteristics, a blinded validation study was performed using prostate lung colorectal ovarian (PLCO) Cancer Screening Trial data and biospecimens to evaluate the performance of a four-marker protein panel (4MP) consisting of the precursor form of surfactant protein B, cancer antigen 125, carcinoembryonic antigen, and cytokeratin-19 fragment in combination with a lung cancer risk prediction model (PLCOm2012) compared with current US Preventive Services Task Force (USPSTF) screening criteria.

The 4MP was assayed in 1,299 sera collected preceding lung cancer diagnosis and 8,709 non-case sera. The 4MP alone yielded an area under the receiver operating characteristic curve of 0.79 (95% CI, 0.77 to 0.82) for case sera collected within 1-year preceding diagnosis and 0.74 (95% CI, 0.72 to 0.76) among the entire specimen set. The combined 4MP 1 PLCOm2012 model yielded an area under the receiver operating characteristic curve of 0.85 (95% CI, 0.82 to 0.88) for case sera collected within 1 year preceding diagnosis.

The benefit of the 4MP in the combined model resulted from improvement in sensitivity at high specificity. Compared with the USPSTF2021 criteria, the combined 4MP 1 PLCOm2012 model exhibited statistically significant improvements in sensitivity and specificity.

Among PLCO participants with $10 smoking pack-years, the 4MP 1 PLCOm2012 model would have identified for annual screening 9.2% more lung cancer cases and would have reduced referral by 13.7% among non-cases compared with USPSTF2021 criteria. A blood-based biomarker panel in combination with PLCOm2012 significantly improves lung cancer risk assessment for lung cancer screening.

Reference: Fahrmann JF et al. Journal of Clinical Oncology 2022 40:8, 876-883

Potentially Practice Changing DATA

Chemoradiotherapy plus induction or consolidation chemotherapy as total neoadjuvant therapy for patients with locally advanced rectal cancer long-term results of the CAO/ARO/AIO-12 randomized clinical trial

Total neoadjuvant therapy has been increasingly adopted for multimodal rectal cancer treatment, however the optimal sequence of chemoradiotherapy (CRT) and chemotherapy not established.

This secondary analysis of a randomized clinical trial included 311 patients who were recruited from the CAO/ARO/AIO-12 trial population from 18 centers in Germany. Patients with cT3-4 and/or node-positive rectal adenocarcinoma were included in the analysis.

They were randomly assigned to group A for 3 cycles of fluorouracil, leucovorin, and oxaliplatin before fluorouracil/oxaliplatin CRT (50.4 Gy), or to group B for CRT before chemotherapy. Total mesorectal excision was scheduled on day 123 after the start of total neoadjuvant therapy in both groups.

Of the 311 patients enrolled, 306 were evaluable, including 156 in group A (mean (SD) age, 60 (11) years; 106 men (68%)) and 150 in group B (mean (SD) age, 62 (10) years;100 men (67%)). After a median follow-up of 43 months (range, 35-60 months), the 3-year disease-free survival was 73% in both groups (hazard ratio, 0.95; 95% CI, 0.63-1.45, P = .82); the 3-year cumulative incidence of locoregional recurrence (6% vs 5%, P = .67) and distant metastases (18% vs 16%, P = .52) were not significantly different. CRT followed by chemotherapy resulted in higher pathological complete response without compromising disease-free survival, toxicity, QoL, or stool incontinence and is thus proposed as the preferred total neoadjuvant therapy sequence if organ preservation is a priority.

Reference: Fokas E. et al. JAMA Oncol. 2022;8(1):e215445. doi:10.1001/jamaoncol.2021.5445


Five Pillars of the
Morrison Cancer Center
PUBLICATIONS
ACADEMIC AFFILIATION
HIGHLY SKILLED PASSIONATE TEAM
SEAMLESS 24/7 CONTINUUM of CARE
NATIONAL WORK
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Potentially Practice Changing DATA

Surgical outcomes from the phase 3 CheckMate 816 trial: Nivolumab (NIVO) + platinum-doublet chemotherapy (chemo) vs chemo alone as neoadjuvant treatment for patients with resectable non-small cell lung cancer (NSCLC)

In this randomized phase 3 study of neoadjuvant NIVO + chemo vs chemo in resectable NSCLC, met its first primary endpoint, demonstrating significantly improved pathological complete response (pCR) with neoadjuvant NIVO + chemo. Adults with stage IB (≥ 4 cm)–IIIA resectable NSCLC, ECOG PS ≤ 1, and no known EGFR/ALK alterations were randomized to NIVO 360 mg + platinum-doublet chemo Q3W or chemo Q3W for 3 cycles (n = 179 each).

Definitive surgery was to be performed within six weeks of treatment. Primary endpoints were pCR (defined as 0% viable tumor cells in lung and lymph nodes) and event-free survival; both are evaluated by blinded independent review. Baseline characteristics were comparable between arms; 64% of patients were stage IIIA.

Definitive surgery rates were 83% with NIVO + chemo (n = 149) vs 75% with chemo (n = 135). Minimally invasive surgery rates were 30% and 22%, and conversion from minimally invasive to open surgery rates were 11% and 16% for NIVO + chemo and chemo, respectively. Lobectomy was performed in 77% vs 61% of pts, and pneumonectomy in 17% and 25% for NIVO + chemo vs chemo, respectively. An R0 resection was achieved in 83% vs 78% of patients and median residual viable tumor cells in the primary tumor bed were 10% vs 74% for NIVO + chemo vs chemo. Neoadjuvant NIVO + chemo did not impede the feasibility and timing of surgery, nor the extent or completeness of resection vs chemo alone; treatment was tolerable and did not increase surgical complications. NIVO + chemo led to increased depth of pathological response.

Reference: Spicer J et al. Journal of Clinical Oncology 2021 39:15_suppl, 8503-8503

Darolutamide and survival in Metastatic Hormone-Sensitive Prostate Cancer

Darolutamide is a potent androgen-receptor inhibitor that has been associated with increased overall survival among patients with nonmetastatic, castration-resistant prostate cancer.

In this international, phase 3 trial, authors randomly assigned patients with metastatic, hormone-sensitive prostate cancer in a 1:1 ratio to receive darolutamide (at a dose of 600 mg (two 300-mg tablets) twice daily) or matching placebo, both in combination with androgen-deprivation therapy and docetaxel.

The primary end point was overall survival. The primary analysis involved 1306 patients (651 in the darolutamide group and 655 in the placebo group); 86.1% of the patients had disease that was metastatic at the time of the initial diagnosis. At the data cutoff date for the primary analysis (October25, 2021), the risk of death was significantly lower, by 32.5%, in the darolutamide group than in the placebo group (hazard ratio 0.68; 95% confidence interval, 0.57 to0.80; P<0.001).

Darolutamide was also associated with consistent benefits with respect to the secondary end points and prespecified subgroups.

Adverse events were similar in the two groups. In this trial involving patients with metastatic, hormone-sensitive prostate cancer, overall survival was significantly longer with the combination of darolutamide, androgen deprivation therapy, and docetaxel than with placebo plus androgen deprivation therapy and docetaxel, and the addition of darolutamide led to improvement in key secondary end points.

Reference: Smith MR et al. N Engl J Med 2022 DOI: 10.1056/NEJMoa2119115

Publications since our last issue

• **Copur M.S.,** Rupe A., **Jacqueline Kelly,** Miscellaneous Chemotherapeutic Agents. DeVita PPO 12th edition 2022. **(Accepted for publication)**

• **Copur M.S, Kelly J.,Tun S.M.** Treatment Break versus Maintenance in Metastatic Colorectal Cancer. J Clin Oncol 2021. **(Published)**

• **Copur, M.S., Schroeder, C., Ly, Q., Kelly, J.,Wedel, W., Lintel, N., Tun, S.M., Horn A., Rodriguez H., Riley, B.** Pathological Complete Response of Locally Advanced Colon Cancer to Neoadjuvant Chemoimmunotherapy and Oxaliplatin Induced Fever Associated with IL-6 Release. Oncology 2021. **(Published)**

• Chu, E., Harrold., LJ., **Copur, M.S.** Chemo-therapeutic and Biologic Drugs. In: Physicians Cancer Chemotherapy Drug Manual. Chu E,De Vita ed. 2022:pages 5-640. **(Published)**

• **Copur, M.S.,** Harrold L.J., Chu E. Guidelines for Chemotherapy and Dosing Modifications. In: Physicians Cancer Chemotherapy Drug Manual. Chu E, DeVita ed.2022:pages 641-674. **(Published)**

• Kuang C, **Copur, M.S.,** Harrold, L.J., Chu, E. Common Chemotherapy Regimens in Clinical Practice.In: Physicians Cancer Chemotherapy Drug Manual. Chu E, De Vita ed.2022:pages 675-852. **(Published)**

• **Copur, M.S.,** Harrold, L.J., Chu E. Antiemetic Agents for the treatment of Chemotherapy induced Nausea and Vomiting. In: Physicians Cancer Chemotherapy Drug Manual. Chu E, De Vita ed. 2012:pages 853-868. **(Published)**

• **Mehmet Sitki Copur, Tonya Peterson, Soe Min Tun, Adam Horn, Whitney Wedel, Randall Duckert, Nicholas Lintel, Carlene R. Springer, Chandra Muske, Leslie Robbins, Jessica Arbogast, Emily Fakkema, Alison Marshall, Kathryn Brunt, Jacqueline R. Kelly.** The relationship of oncotype Dx Recurrence Score (RS) with Ki 67 in early stage breast cancer patients in a community based cancer center in rural central Nebraska. J Clin Oncol 2022. **(Submitted for publication)**

• **Copur M.S., Tun S.M., Wedel W., Vargas L., Shaheed M., Horn A., Lintel N., Bronson R., Kelly J.** Unusual dMMR Phenotype Pancreatic Ductal Adenocarcinoma with Germline and Somatic BRCA2 Mutations in a Jehovah Witness Patient. Oncology 2022. **(Submitted**

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