

GBMIC

THE SANDRA & MALCOLM BERMAN
CANCER INSTITUTE

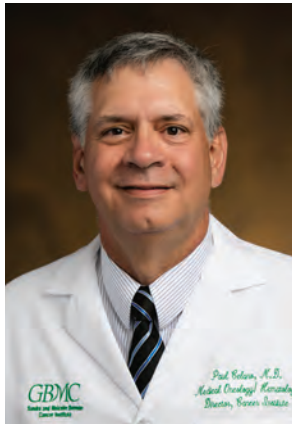
2017 ANNUAL REPORT



LETTER FROM THE MEDICAL DIRECTOR



THE SANDRA & MALCOLM
BERMAN CANCER INSTITUTE



Paul Celano, MD, FACP

“Our clinical trials program offers nearly 60 clinical trials for patients with a range of cancer diagnoses and in various stages of disease.”

—PAUL CELANO, MD, FACP

FRIENDS,

This has been a very exciting year for the Sandra and Malcolm Berman Cancer Institute at GBMC. We've made great strides in several areas, including improvements in our multidisciplinary cancer care teams, improvements in the integration of palliative care and symptom management, and significant enhancements of our clinical trials program. These wonderful advances, combined with our outstanding and compassionate teams, have enabled us to deliver the absolute best care to our patients.

The Sandra and Malcolm Berman Cancer Institute continues to be a leader in providing multidisciplinary care for patients with cancer. This is in keeping with our vision that personalized care must start with a patient's concerns being addressed by a team of oncologists and other healthcare professions that carefully evaluates and considers all aspects of a patient's condition. This team includes primary care physicians, nurses, surgeons, medical subspecialists, radiologists, pathologists, geneticists, palliative care specialists, pharmacists, and members of the rehabilitation team. In addition, our teams in Oncology Support Services, spiritual support, nutrition support, and survivorship make very important contributions. The Sandra and Malcolm Berman Comprehensive Breast Care Center has received national accreditation as a “center of excellence,” as has our affiliated Advanced Radiology Breast Imaging Center. GBMC is now the only hospital in the state with an integrated center.

The Milton J. Dance, Jr. Head and Neck Center provides comprehensive care to patients with disorders of the head and neck and their families. The Center includes head and neck surgery, multidisciplinary head and neck rehabilitation services, a full range of speech-language pathology services, and a highly specialized voice center.

Our Gynecological Oncology program continues to provide our patients with multidisciplinary team-based care, combined with patient access to state-of-the-art clinical research studies using both molecularly targeted agents and immunotherapies.

This year, the Berman Cancer Institute at GBMC has brought together considerable expertise in the GBMC Multidisciplinary Gastrointestinal Cancer Team. This team meets regularly to discuss a range of options for patients with GI cancers in order to develop individualized care plans. Soon a nurse navigator will join our team to provide personalized guidance for patients and families—from diagnosis through treatment.

I am pleased to announce a new relationship between the Berman Cancer Institute and Chesapeake Urology Associates, which brings together the extensive expertise of the Chesapeake Urology physicians with a full range of multidisciplinary care offered by The Berman Cancer Institute at GBMC.

Medicine, particularly oncology care, is an art. The Berman Cancer Institute at GBMC is committed to providing excellent social support and palliative care to our patients. All GBMC oncology patients are provided with a full range of social support services, including both individual and family counseling, financial assistance and guidance, and spiritual support. Our highly successful Legacy Chase event, which was held on September 23 at Shawan Downs, raises funds to help support these vital services.

Our program works in close coordination with Gilchrist's Advanced Care Management team, providing our patients direct access to experts in palliative care. Integrating this team approach early in a patient's care has been shown to greatly improve quality—and length—of life for cancer patients. This program offered through the Berman Cancer Institute at GBMC is a model program for the region, if not the country.

The GBMC oncology program has been exemplary in not only providing high quality cancer care but also giving patients access to a wide variety of clinical trials. Our clinical trials program offers nearly 60 clinical trials for patients with a range of cancer diagnoses and in various stages of disease. Our program actively participates with clinical trial organizations sponsored by the National Cancer Institute as well as pharmaceutical industry-supported organizations. All of our clinical trials are overseen by the GBMC Institutional Review Board. Our program continues to expand offerings to our patients—offerings that provide access to the most novel forms of therapy, including personalized genetic and targeted therapies, as well as immunotherapies.

I want to acknowledge the strength, effort, and love of our patients and families as they travel on their journey of fighting cancer. It is my honor to help patients and to work with the extraordinary individuals who provide compassionate and dedicated care here at the Sandra and Malcolm Berman Cancer Institute at GBMC. Cancer care at GBMC is truly special.

Paul Celano, MD, FACP
Medical Director
Sandra and Malcolm Berman Cancer Institute
Greater Baltimore Medical Center

GI CANCER

Gastrointestinal Cancer Program At GBMC



We've undertaken new initiatives in the last year to foster and develop the gastrointestinal cancer program here at GBMC.

The core of our hospital's strength has always been the quality of the physicians who practice here. With outstanding physicians from both the staff and community, patients with any malignancy of the GI tract can be assured to receive world-class care in a warm and personal environment.

The creation of a dedicated multidisciplinary team has allowed us, as individual practitioners, the

opportunity to become real colleagues and work together to better take care of our patients. For patients who receive all of their care at GBMC, patient discussions can reveal insights or different perspectives that could only happen in a face-to-face comprehensive review of the patient's history.

Additionally, we are able to decide on standards for care for our patients and provide ample opportunity for feedback to improve the overall quality of care at GBMC.

LESS IS MORE WITH RECENT ADVANCES IN RECTAL CANCER

BY JOSEPH DIROCCO, MD

Colorectal cancer is the second most common cancer-related cause of death in this country. (Lung cancer tops the list.) Overall, there were 135,000 people diagnosed with colorectal cancer last year. Of this group, 40,000 had rectal cancer.

Historically, surgical treatment of rectal cancer was associated with high morbidity, and a permanent colostomy was the rule rather than "the exception." Fortunately, there has been an historical progression toward more precise surgical technique and the addition of therapies like radiation and chemotherapy, as well as new diagnostic devices and techniques to better stage our patients upon diagnosis. As a result, patients today have more options and better outcomes, and a permanent colostomy has become the exception rather than the rule. At GBMC, there is a system-wide commitment to providing high quality care, from initial diagnosis to survivorship, using the latest research, techniques, and technology.

Since GBMC graduated its first colorectal fellow in 1974 under the guidance of Jack Rosin, MD, our program remains the only accredited

colorectal surgical residency in Maryland.

Robotic surgery: At GBMC, the majority of rectal cancers are removed using this technique.

Endoscopic mucosal resection: This endoscopic procedure uses advanced instruments to remove polyps and tumors that would otherwise require major abdominal surgery.

Transanal minimally invasive surgery (TAMIS): This is a technique that allows more advanced tumors to be removed from inside the rectum.

TAMIS for total mesorectal excision: This hybrid surgical approach uses minimally invasive techniques to remove lower rectal cancers, which allows for precise division of the bowel below the tumor.

Short course radiotherapy: This course of radiotherapy is given before surgery for one week, as opposed to five weeks. Surgery follows one to two weeks later. This shortened course of radiation for locally advanced cancers provides accelerated care and is widely adopted in Europe.

Sphincter preservation: A variety of techniques are used by our surgeons to avoid permanent colostomy whenever possible.



Joseph DiRocco, MD



WELCOME NEW PHYSICIANS



Matthew Boyer, MD, PhD., recently joined GBMC as a radiation oncologist. Dr. Boyer earned his Doctor of Medicine at the University of Pittsburgh School of Medicine, where he also earned his PhD in Molecular Genetics. He completed his residency in Radiation Oncology at the Duke University Medical Center in North Carolina. Dr. Boyer is a member of the American Society for Radiation Oncology and the Radiological Society of North America. He has co-authored papers in *The Lancet* and *Proceedings of the National Academy of Sciences* as a Phase II study of SBRT for prostate cancer.

PALLIATIVE MEDICINE

Palliative Medicine in the Greater Baltimore Medical Center was established in 2007 and continues its mission of providing symptom management; facilitating and offering counseling about goals of care discussions; and providing support for patients with chronic, serious, incurable, and life-limiting medical illnesses.

The program, currently led by Marian Alessandrini, MD, provides its services for patients hospitalized in GBMC and in six residential community care centers in Baltimore City, Baltimore County, and Howard County. In addition, the program serves patients who would benefit from consultation in outpatient clinic in two locations on the GBMC grounds: Gilchrist Counseling and Support at 6701 N. Charles Street, Suite 4106; and the Sandra and Malcom Berman Cancer Institute, 6569 N. Charles Street, Suite 201.

While Palliative Medicine services are beneficial to patients with cancer at all stages of their illnesses, recently an initiative was undertaken to specifically serve patients with advanced and metastatic cancer, as well as those diagnosed with cancer at age of 85 and older. The goal is to maximize the support these patients need and focus on maintaining and/or improving their quality of life as they undergo cancer treatment.

In an effort to continue to integrate with the cancer center, Palliative Medicine works closely with Oncology Support Services in the Sandra and Malcom Berman Cancer Institute in order to explore the psychosocial needs of patients with cancer and to maximize psychosocial support as patients navigate their journey from diagnosis through treatment and onto the advanced stages of cancer.

Outpatient consultation with a Palliative Medicine specialist is provided by Philip Shaheen, MD, and Marian Alessandrini, MD, both Board-certified in Hospice and Palliative Medicine. Referrals to the Palliative Medicine Clinic have increased year after year, and the Clinic strives to meet the ever-growing needs of the GBMC oncology patient population as well as those with serious and life-threatening medical conditions. During fiscal year 2017, the Clinic handled 71 new outpatient referrals, with a total of 387 visits during the same time period.

Palliative Medicine continues to develop and enhance policies and procedures for providing services and referrals, and for managing acutely ill patients with terminal diagnoses. Palliative Medicine is proactive in assisting GBMC in providing comfort care for actively dying patients. Its mission, scope of services, and collaborations are overseen by the Advanced Care Management Committee chaired by Harold Tucker, MD.



Philip Shaheen, MD

UROLOGIC CANCER PROGRAM

Utilizing a team approach to cancer care, the Sandra and Malcolm Berman Cancer Institute has partnered with Chesapeake Urology Associates, the largest urology group in the mid-Atlantic region, to provide medical oncology and infusion therapy services to patients with malignancies of the genitourinary system. GBMC medical oncologists participate in urology tumor boards, collaborate on clinical trials, and work closely with urologists to provide expert cancer care to patients.

Leading the effort are GBMC medical oncologists Paul Celano, MD, Mei Tang, MD, and Ari Elman, MD, and their counterparts at Chesapeake Urology Associates, Benjamin Lowentritt, MD, and Ronald Tutrone, MD. Patients can see their medical oncologist and receive their cancer treatment in a comfortable environment located within the Chesapeake Urology Associates center located in the Physicians Pavilion North building on GBMC's campus.



Medical Oncologists: Ari Elman, MD; Mei Tang, MD; Paul Celano, MD. Urologists: Benjamin Lowentritt, MD; Ronald Tutrone, MD

SUPPORT SERVICES

- Boutique Salon & Wellness Center
- Chemotherapy Educational Sessions
- Pet Therapy
- Financial Counseling
- Financial Support for Eligible Patients
- Genetic Counseling
- High Risk Breast Cancer Screening Program
- Lymphedema Rehabilitation Services
- Music Therapy
- Nutrition Counseling
- Oncology Certified Nurses
- Ostomy Care
- Ostomy Support Group
- Pain Management
- Palliative Care Program
- Psychosocial Support for Patients and Families
- Survivorship Program
- Cancer Registry
- Transportation Assistance

MEDICAL ONCOLOGY & HEMATOLOGY

- Board Certified Physicians
- Chemotherapy, including Biotherapy, Immunotherapy
- Personalized Care
- Next Generation Sequencing
- Multidisciplinary Care
- Lois Harvey Miller Infusion Center
- Joseph S. Keely Oncology Inpatient Unit (45)
- Targeted Therapies

SURGICAL ONCOLOGY

- Breast
- General Surgery
- Gastrointestinal/Colorectal
- Gynecologic Oncology
- Head & Neck
- Thoracic
- Urological

RADIATION ONCOLOGY

- Breast HDR Brachytherapy
- CT Simulator
- Electron Therapy
- High Dose Rate Brachytherapy
- Image Guided Radiation Therapy
- Intensity-Modulated Radiotherapy
- Intraoperative Radiation Therapy
- Prostate Brachytherapy
- Rapid Arc
- Respiratory Gating
- Stereotactic Ablative Radiotherapy
- Stereotactic Radiosurgery

SPIRITUAL CARE

- Advance Directive Counseling
- Caregivers Support Group
- Chapel
- Spiritual Support Team
- Spiritual/Religious Resources

COMMUNITY PARTICIPATION

- Cancer Coalition: Baltimore County/Health Departments
- American Cancer Society
- Look Good, Feel Better
- Relay for Life
- Komen MD
- The Red Devils
- Hopewell Cancer Support
- Zaching Against Cancer
- Ulman Cancer Fund for Young Adults
- Leukemia & Lymphoma Society
- Cancerve
- Lung Cancer Alliance

COMMUNITY OUTREACH

- Community Cancer Education
- Maryland Cancer Control Plan Steering Committee
- Screenings for Prostate, Skin, and Oral Cancer
- Baltimore County Public School System
- Breast Prevention & Early Detection

CLINICAL TRIALS

- Breast
- Gastrointestinal
- Genitourinary
- Gynecologic
- Head and Neck
- Leukemia/Lymphoma/Myeloma
- Lung
- Melanoma & Skin



Baltimore Magazine Top Docs 2017

Some 139 GBMC physicians, covering 76 specialties, were recognized as “Top Doctors” in Baltimore magazine’s annual listing (November). Several medical staff members were recognized in more than one category, and some have been recognized many years in a row.

Oncology Rehabilitation

ALAN KIMMEL, MD, MEDICAL DIRECTOR AND VIRGINIA MORATZ, OTR, CHT, CLT
ADMINISTRATOR AND CLINICAL DIRECTOR



Virginia Moratz and Alan Kimmel, MD

Oncology Rehabilitation is a key component of the care and support of a cancer patient. Cancer does not just affect a body part. It can affect the entire patient and their loved ones. Surgery, chemotherapy, radiation, countless doctor visits, and just plain worry can be strenuous.

Oncology rehabilitation is the process of addressing a host of potential issues that might include:

- Cancer-related fatigue
- Deconditioning and general debility
- Swelling and lymphedema
- Range of motion problems with many causes:
 - Scar contractures
 - Axillary web syndrome
 - Unrelated chronic orthopedic issues such as frozen shoulders, knee and hip arthritis, etc.

- Nerve injuries with hypersensitivity, weakness, and palsy
- Pain, discomfort
- Psychological stress and anxiety
- Challenges to activities of daily living

Oncology rehabilitation ideally begins right after diagnosis or initial hospitalization with efforts to promote flexibility, endurance, balance, and strength. It continues with individualized treatment plans designed to address an individual patient's goals. These can range from simply getting out of a tub or chair to resuming labor-intensive occupations or sports, self-care, and childcare.

Our physical and occupational therapists are specialized and equipped to evaluate and address issues related to posture, scar management, post-radiation skin care, neuropathies, and lymphedema.

We tailor a program to fit a patient's specific needs. Our team includes our lymphology medical staff and it works in concert, as indicated, with other affiliated GBMC oncology teams including speech and swallowing, mental and spiritual health, and nutrition.

By identifying small issues early, we can help address them before they become big problems.

Speak with your oncology provider about a referral for oncology rehabilitation. Please call the Greater Baltimore Center for Rehabilitation Medicine for a consultation or initial evaluation at 443-848-6210.

Oncology rehabilitation ideally begins right after diagnosis or initial hospitalization with efforts to promote flexibility, endurance, balance, and strength.

Lymphedema Management and Therapy

ALAN KIMMEL, MD, MEDICAL DIRECTOR AND VIRGINIA MORATZ, OTR, CHT, CLT ADMINISTRATOR AND CLINICAL DIRECTOR

Lymphedema is a common unwanted effect of treatment for many types of cancer. The most common cancers that can lead to lymphedema swelling are breast, head and neck, and pelvic (gynecologic and prostate). However, many other cancer types, such as melanoma, can also be associated with lymphedema.

Lymphedema is defined as an abnormal accumulation of protein-rich fluid, which can cause chronic inflammation and fibrosis of affected tissues.

It begins with swelling and can lead to discomfort, reduced mobility, skin infections (cellulitis), and pronounced skin changes (including scarring, wounds, and disfigurement).

Treatment for cancer may include surgery, radiation, and/or chemotherapy. All of those modalities can inadvertently damage lymphatic vessels and lymph nodes. This damage reduces the lymphatic system's ability to perform its role of clearing the debris from cellular activities throughout the body. A syrupy fluid piles up, resulting in heavy tissue that feels full of fluid.

The Greater Baltimore Lymphedema Center at GBMC is part of the Greater Baltimore Center for Rehabilitation Medicine. It is one of largest and most comprehensive lymphedema centers in the country. Patients come from all points of the compass to seek advice and treatment at our center.

Anyone with a history of prior cancer therapy who develops swelling, tissue heaviness, or limitations in mobility or range of motion can come to the Lymphedema Center for an evaluation.

During that initial visit, our team will review the patient's cancer therapy history, even if the cancer and treatment occurred many years ago. We will get a clear delineation of what often begins as vague, ill-defined symptoms that have progressed over time to the present day. We will conduct a full musculoskeletal, skin, and lymphatic evaluation. The team will determine whether the swelling is indeed caused by lymphedema or instead by one of many other causes.

A treatment plan will be built around a patient's individual circumstances and personal goals. These goals might vary widely: Some patients simply want to be able to wear comfortable shoes again or a favorite piece of jewelry, while others might want to compete in marathons or competitive skiing. The focus might be specifically on the swelling or include other issues such as range-of-motion, strength, or bowel and bladder control.

At the center of our lymphedema therapy program is Complete Decongestive Therapy (CDT), a therapy that includes manual lymphatic drainage/massage (MLD), compression bandaging, remedial exercise, skin care, and compression garments.

All cancer patients can benefit from early involvement in our Oncology Rehabilitation program. This includes basic support, rehabilitation, and education on efforts to prevent and reduce cancer-related fatigue, pain, and range-of-motion. We seek to improve strength, endurance, and a return to a strong sense of well-being.

Ultimately, oncology rehabilitation is about patient and family education and teaching self-care and prevention tools and methods.

The Greater Baltimore Lymphedema Center at GBMC includes: a lymphology physician and nurse practitioner, lymphedema certified physical and occupational therapists, nurses and wound care specialists, garment fitters, and a professional support team. All are fully engaged in making this experience personal and individualized.

Please call the Greater Baltimore Center for Rehabilitation Medicine at 443-849-6210 for more information or to request a consultation.



Alan Kimmel, MD

Anyone with a history of prior cancer therapy who develops swelling, tissue heaviness, or limitations in mobility or range of motion can come to the Lymphedema Center for an evaluation.

Oncology Support Services

GBMC's Oncology Support Services team consists of two experienced social workers, a patient resource navigator, a community outreach coordinator, and a survivorship coordinator.

Through their familiarity and expertise with a world of available services, our team may make it possible to access a range of assistance programs such as:

- Financial Assistance Through Independent Non-profit Organizations
- Pharmaceutical Company Financial Assistance Programs
- Referrals to Support Groups
- Home Care
- Hospice
- Palliative Care
- Patient Education Materials
- Social Security Disability
- Transportation Programs
- Complementary Therapies (such as massage or acupuncture)

We offer counseling to patients, their caregivers, and their families to help in dealing with emotional strains. We offer access to support groups to help our patients deal with depression and uncertainty about the future, and we offer a variety of options to help with financial issues associated with cancer treatments.

Our Patient Resource Navigator is available to help patients and their loved ones access and utilize resources available to help cope with, and overcome, logistical barriers to treatment.

Once an individual completes cancer treatments and transitions into a "new normal" life, there can potentially be new issues to face that can impact quality of life. Survivorship Services are also available to offer programs and resources to address specific issues facing cancer survivors after they complete their treatments.



Bunny Ebling, LCSW (Social Worker); Laura Schein (Community Outreach Coordinator); Brandon Costantino (OSS Manager); Brearna Powell (Patient Resource Navigator); Felicity Kirby, RN (Survivorship Nurse); Not shown: Kelly Anderson, LCSW (Social Worker)

GBMC's Boutique Salon and Wellness Center provides image recovery services in private rooms to meet emotional and aesthetic needs. It carries wigs, prosthetics, clothing, corrective make-up, and skin care products and offers services that include styling and make-up application techniques. Patients may also attend one of our Look Good, Feel Better sessions (made possible in part by the American Cancer Society). This program helps women who are undergoing cancer treatment to cope with appearance-related side effects of treatment (including hair loss and changes in complexion and fingernails) and to regain a sense of self-confidence.



BOUTIQUE

The Boutique Salon and Wellness Center moved from the main hospital to Physician's Pavilion West. The Boutique specializes in services, clothing, and accessories to meet the individual needs of women diagnosed with cancer, as well as those with alopecia or skin care needs resulting from scars, burns, or laser treatments. The Boutique offers wigs, scarves, and hats for hair loss, and a unique selection of clothing, accessories, and gifts.



Clinical Trials at the Sandra and Malcolm Berman Cancer Institute at GBMC

The Oncology Clinical Trials Program at GBMC is entering its third decade of service to our patients. This program is dedicated to offering novel and state-of-the-art therapies to patients who are battling cancer. We have a superior team led by Judy Bosley, RN, BSN, CCRP, along with Pamela Nickoles, RN, BSN, CCRP, and Clinical Research Associates Melissa Loomis CCRP, Kieu Nguyen Markiewicz BS, CCRP, and Steven Schmitt, BS. This team not only provides excellent research support but also greatly contributes to outstanding patient care.

The Oncology Clinical Trials program offers nearly 60 trials to our patients for virtually the entire spectrum of cancer diagnoses, including breast, lung, gastrointestinal, gynecological, head and neck, melanoma, genitourinary cancers, and lymphoma. The program is an active member of The National Cancer Institute (NCI) oncology cooperative groups. These groups include the Eastern Cooperative Oncology Group/ American College of Radiology Imaging Network, NRG Oncology (which includes the National Surgical Adjuvant Breast and Bowel Project), the Radiation Tumor Oncology Group, and the Gynecologic Oncology Group. Our patients can also access trials at GBMC through the NCI's Clinical Trials Support Unit. In addition, our Clinical Trials program has established collaborative relationships with many major pharmaceutical clinical trial efforts working in conjunction with the NCI and Food and Drug Administration.

The Oncology Trials Program offers a range of opportunities—from prevention to the latest cancer treatments—using personalized genetic targeting and immunotherapies for all stages of disease. The wide range of these studies is illustrated by the following clinical trials.

The Oncology Trials Program offers a range of opportunities using personalized genetic targeting and immunotherapies for all stages of disease.

1. NANOPAC-2016-01 - Phase II Intraperitoneal NanoPac® with Recurrent Stage III Epithelial Ovarian Cancer Undergoing Second Cytoreductive Surgery

The infographic for the NANOPAC-2016-01 trial is divided into four columns:

- Column 1:** A basketball icon with text: "400X Reduction in size reduction - Reduction to the size of a pin head." Below it: "PATENTED PROCESS PACLITAXEL & DOXETAXEL CRYSTALS REDUCE 400x INTO NAKED NANOPARTICLES" and "POWDER FORM".
- Column 2:** Text: "STABLE NAKED NANOPARTICLES" and "SUSPENDED IN SIMPLE LIQUIDS". Below is an icon of a vial and text: "WITHOUT THE NEED FOR COATING AGENTS".
- Column 3:** Text: "CONCENTRATED DOSE DELIVERED DIRECTLY" and "AREA OF DISEASE". Below is an icon of a person with a target on their chest and text: "NANOPARTICLES REMAIN FIGHTING CANCER MORE THAN 4 WEEKS".
- Column 4:** Text: "DIRECT DELIVERY VS SYSTEMIC DELIVERY" with a crossed-out icon. Below is an icon of a person with a target on their chest and text: "ADVERSE EFFECTS SIGNIFICANTLY REDUCED".

This clinical trial is testing an exciting new chemotherapy delivery technology in primary and recurrent ovarian cancer following debulking surgery. This nanoparticle platform allows paclitaxel to be given intra abdominally in a single dose to achieve high locally maintained concentrations of chemotherapy and to minimize effects of chemotherapy to rest of the body.

2. S1400 Lung-MAP: Biomarker-Targeted Second-Line Therapy in Treating Patients With Recurrent Stage IV Squamous Cell Lung Cancer



GENOMIC PROFILE SCREENING

Patients are screened using comprehensive genomic profiling platform that looks at over 200 cancer-related genes for genomic alterations.



SUB-STUDY ASSIGNMENT

Based on the results of this screening, patients are assigned to whichever one of the sub-studies testing different investigational treatments best suits their genomic profile.



INNOVATIVE APPROACH

This innovative approach improves a patient's likelihood of receiving a drug targeted at the genetic profile of their particular tumor while allowing for new therapies in development to be added as the trial progresses.

The Lung-MAP trial tests several new treatments for patients who have advanced stage squamous cell lung cancer. This trial will establish a method for genomic screening that will determine which new targeted cancer therapy that will be used in the patient's treatment. Targeted therapies are designed to block the growth and spread of cancer by taking advantage of specific molecular mutations in cancers.

The above studies are illustrative of the many exciting and innovative clinical research trials that are offered at the Berman Cancer Institute at GBMC. Clinical research studies are considered in nearly all treatment options for patients. The treatment plan always needs to be discussed with patients and their families so that their desires and goals of care are best achieved.

Colorectal Prevention and Screening

Colorectal cancer (CRC) remains the second most prevalent cancer among men and women. Approximately 135,000 new cases are diagnosed yearly, and five-year survival rates for colorectal cancer are 60 percent. Recently we have seen an increase in the incidence of colorectal cancer in younger patients, perhaps attributed to a rise in obesity rates and environmental changes.

While the numbers are alarming, only 65 percent of the U.S. population has been screened. At Greater Baltimore Medical Center, our goal is to screen at least 75 percent of our community by the end of 2017. Prevention of CRC may be possible with proper screening, eating a healthy and well-balanced diet, and avoiding tobacco use.

The gold standard in colonoscopy screening remains colonoscopy, which allows for the detection and removal of polyps, which are pre-cancerous growths of tissue. Other non-invasive tests such as Cologuard and FIT testing are also approved for primary screening. Screening starts at age 45 in African Americans and at age 50 in the remainder of the population.

Often, patients with CRC will not have any symptoms. However, if a person develops blood in the stool, change in stool frequency or caliber, abdominal pain, unexplained weight loss, or change in appetite, that patient should seek medical attention.

As of late 2017, the GBMC gastroenterology group has performed more than 2,800 screening colonoscopies and our primary care physicians have also been screening patients with non-invasive testing, helping us reach our 75 percent screening goal. Together with our multi-specialty gastrointestinal cancer group we are able to provide comprehensive care for our patients with colorectal cancer.



Niraj Jani, MD

Cancer Registry Data

COLON CANCER STAGE BY AGE

| STAGE | UNDER 20 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | 80-89 | 90 AND OVER | TOTAL N | TOTAL % |
|------------|----------|-------|-------|--------|--------|--------|--------|--------|-------------|---------|---------|
| 0 | 0 | 0 | 0 | 2 | 2 | 5 | 6 | 0 | 1 | 16 | 3.81% |
| | 0 | 0 | 0 | 12.50% | 12.50% | 31.30% | 37.50% | 0.00% | 6.30% | 100% | |
| I | 1 | 9 | 4 | 9 | 26 | 22 | 29 | 8 | 2 | 110 | 26.19% |
| | 0.90% | 8.20% | 3.60% | 8.20% | 23.60% | 20% | 26.40% | 7.30% | 1.80% | 100% | |
| II | 0 | 0 | 3 | 3 | 15 | 18 | 25 | 26 | 9 | 99 | 23.57% |
| | 0 | 0 | 8% | 3% | 15.20% | 18.20% | 25.30% | 26.30% | 9.10% | 100% | |
| III | 0 | 2 | 8 | 9 | 25 | 28 | 17 | 19 | 0 | 109 | 25.95% |
| | 0 | 1.80% | 7.30% | 8.30% | 22.90% | 25.70% | 15.60% | 17.40% | 0.90% | 100% | |
| IV | 0 | 1 | 1 | 5 | 11 | 19 | 17 | 17 | 3 | 74 | 17.62% |
| | 0 | 1.40% | 1.40% | 6.80% | 14.90% | 25.70% | 23% | 23% | 4.10% | 100% | |
| UNK | 0 | 0 | 0 | 0 | 4 | 3 | 1 | 3 | 1 | 12 | 2.86% |

COLON CANCER STAGE BY GENDER

| STAGE | MALE | FEMALE |
|------------|-------|--------|
| 0 | 68.8% | 31.3% |
| I | 40% | 60% |
| II | 42.4% | 57.6% |
| III | 44% | 56% |
| IV | 43.2% | 56.8% |

GBMC 2016 CANCER SITES

| PRIMARY CANCER SITE CANCER SITE | ANALYTIC CASES* | NON-ANALYTIC CASES** | ALL 2016 CASES |
|------------------------------------|-----------------|-------------------------|-------------------|
| HEAD AND NECK | | | |
| ORAL CAVITY | 49 | 4 | 53 |
| PHARYNX | 37 | 1 | 38 |
| SALIVARY GLAND | 6 | 1 | 7 |
| LARYNX | 40 | 2 | 42 |
| NASAL CAVITY/SINUS | 4 | 1 | 5 |
| OTHER | 10 | 0 | 10 |
| DIGESTIVE SYSTEM | | | |
| ESOPHAGUS | 15 | 2 | 17 |
| STOMACH | 25 | 0 | 25 |
| COLON/RECTOSIGMOID | 99 | 2 | 101 |
| RECTUM | 26 | 6 | 32 |
| ANUS/ANAL CANAL | 9 | 5 | 14 |
| LIVER | 5 | 0 | 5 |
| PANCREAS | 37 | 3 | 40 |
| OTHER | 22 | 2 | 24 |
| RESPIRATORY SYSTEM | | | |
| LUNG/BRONCHUS | 116 | 11 | 127 |
| OTHER | 1 | 1 | 2 |
| BLOOD & BONE MARROW | | | |
| LEUKEMIA | 28 | 6 | 34 |
| MULTIPLE MYELOMA | 27 | 2 | 29 |
| OTHER | 1 | 0 | 1 |
| BONE | | | |
| CONNECT/SOFT TISSUE | 8 | 1 | 9 |
| SKIN | | | |
| MELANOMA | 29 | 3 | 32 |
| OTHER | 6 | 0 | 6 |
| BREAST | | | |
| FEMALE GENITAL | | | |
| CERVIX UTERI | 22 | 2 | 24 |
| CORPUS UTERI | 87 | 2 | 89 |
| OVARY | 23 | 1 | 24 |
| VULVA | 7 | 0 | 7 |
| OTHER | 9 | 1 | 10 |
| MALE GENITAL | | | |
| PROSTATE | 96 | 23 | 119 |
| TESTIS | 2 | 1 | 3 |
| OTHER | 1 | 0 | 1 |
| URINARY SYSTEM | | | |
| BLADDER | 20 | 5 | 25 |
| KIDNEY/RENAL | 60 | 4 | 64 |
| OTHER | 2 | 0 | 2 |
| BRAIN & CNS | | | |
| BRAIN (BENIGN) | 5 | 1 | 6 |
| BRAIN (MALIGNANT) | 6 | 0 | 6 |
| OTHER | 1 | 0 | 1 |
| ENDOCRINE | | | |
| THYROID | 76 | 4 | 80 |
| OTHER | 4 | 2 | 6 |
| LYMPHATIC SYSTEM | | | |
| HODGKIN'S DISEASE | 5 | 0 | 5 |
| NON-HODGKIN'S | 71 | 4 | 75 |
| UNKNOWN PRIMARY | | | |
| OTHER/ILL-DEFINED | 25 | 3 | 28 |
| TOTALS | 1556 | 139 | 1695 |

* Analytic Cases: Patients either diagnosed or diagnosed and/or received a portion of first course treatment at GBMC.

** Non-Analytic Cases: Patients received first course treatment elsewhere and presented to GBMC with recurrence or progression.

As of late 2017, the GBMC gastroenterology group has performed more than 2,800 screening colonoscopies and our primary care physicians have also been screening patients with non-invasive testing, helping us reach our 75 percent screening goal.



More than
350 survivors
and family
members
attended the
Annual Cancer
Survivor
Celebration
event.

COMMUNITY OUTREACH 2017 ANNUAL REPORT

- Screened 14 men for prostate cancer; one participant was advised to seek further follow-up, excluding those with BPH; No prostate cancer diagnoses were reported.
- Screened 86 participants for skin cancer; 36 were advised to seek follow-up; and 31 were recommended for biopsy.
- Screened 12 participants for oral cancer; 2 were advised to seek follow-up; and none confirmed cancer with diagnosis. Tobacco and alcohol risk reduction was discussed.
- Screened 41 participants with voice screenings at the Milton J. Dance, Jr. Head & Neck Center, with one diagnosed cancer.
- Supported numerous outreach events including: Red Devil's HF, Gray & Sons Paving presentation, Senior Expo, Leukemia & Lymphoma Society Light The Night, Blood Cancer Awareness month display, Great American Smoke Out display, HopeWell Cancer Support Reach Out and Run, Red Devils, American Cancer Society Relay For Life. Fundraisers to support the Cancer Institute team included: (Cropping Event); Legacy Chase Jeans Days and Bake Sale; Health Fairs at Baltimore County Government Employees, Centers for Medicaid & Medicare, T. Rowe Price, Towson University, Oakcrest, McCormick, and Senior Expo.
- Continued to provide oncology support programs/services, including twice monthly Look Good Feel Better sessions (41 participants). Monthly Head and Neck Cancer Support Group (202 participants). In total, 243 patients and their families participated in these activities this year, with an average of 20 per month. A Caregiver Celebration held in November supported 36 participants. More than 350 survivors and family members attended the Annual Cancer Survivor Celebration event.
- Our staff presented to the public at the Komen MD/GBMC Breast Consortium, and Ulman Cancer Fund/GBMC presentation on Fertility and Breast Cancer.



REACH OUT AND RUN RACE

HopeWell Cancer Support: The 20th Reach Out and Run Race was held April 23rd. HopeWell provides compassionate care and programs to cancer survivors in our community.

Thank you to the Dance Endowment for continued annual support for this race.

Barbara Messing, MA, CCC-SLP, and Karen Ulmer, MS, RN, CORLN



- Three educational presentations, Cancer Prevention and Screening Updates, were offered at three Baltimore County Senior Centers.
- In a partnership with Ladew Gardens, The Berman Cancer Institute sponsored a spring lecture.
- The Legacy Chase event drew hundreds of staff and members of the community to an activity-filled day, with all proceeds benefiting oncology patient support at GBMC.
- The Community Needs Assessment (completed by GBMC and other area hospitals) was made available to the Berman Cancer Institute in November 2013. The top identified needs were as follows: lack of health insurance coverage, inability to pay out-of-pocket expenses, lack of transportation, availability of appointments and language/cultural barriers. We are currently addressing these needs with the assistance of community and hospital resources.

IN 2017, WE SUPPORTED NUMEROUS OUTREACH ACTIVITIES, HEALTH FAIRS, AND COMMUNITY EVENTS:

- HopeWell Cancer Support Reach Out and Run: April 23
- Social Security Administration Health Fair: April 26
- McCormick Health Fair: May 1
- T. Rowe Price Health Fair: May 2-3
- Towsontown Spring Festival: May 6
- GBMC Employee Health Fair: May 11
- Relay for Life/North Baltimore County-Towson: June 3
- Annual Survivorship Celebration: June 4
- Baltimore County Employees Health Awareness Day: September 13
- GBMC Legacy Chase: September 23
- Running with the Devils (The Red Devils): October 1
- Senior Expo: October 4-5
- Cancer Caregiver Event: November 7-8
- Leukemia & Lymphoma Society Light the Night: November 11
- Great American Smokeout: November 16

Submitted by: Laura Schein, Community Outreach Coordinator

LEGACY CHASE – SUPPORTING ONCOLOGY SERVICES

The 17th annual Legacy Chase at Shawan Downs was held on Saturday, September 23. This is GBMC’s signature event and proceeds go to support oncology services at GBMC. More than 8,000 people attended the event in beautiful summer-like weather. The theme this year was Hats, Horses, and Hope. Cancer survivors, loved ones, and staff performed the “Survivor Shuffle” en masse to spread awareness and joy throughout the setting. Attendees wore fun hats and children (and some adults) came dressed as superheroes. GBMC’s Cancer Survivor’s Tent was a hotbed of activity as attendees celebrated life and survivorship. Enjoy the scenes of the day:



COMMITTEES

CANCER COMMITTEE

Paul Celano, MD, FACP (Chair)
Jennifer Billiet, MGC (Genetics)
Bishal Bista, PharmD (Pharmacy)
Judy Bosley, RN
(Clinical Trials Mgr/Coord)
Robert Brookland, MD
(Radiation Oncology)
Neri Cohen, MD, PhD (Thoracic Surgery)
Brandon Costantino
(Oncology Support Mgr)
Robert Donegan, MD (Medical Oncology)
Nathan A. Dunsmore, MD (Pathology)
Helaina Ebling, LCSW (Psych Coord)
Sara Fogarty, DO (Breast Surgery)
Suzi Ford (ACS)
Clair Francomano, MD (Genetics)
Dorothy Gold, LCSW-C
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David Goldstein, MD (Urology)
Courtney Hartman (EPIC)
Amanda Henderson, RN
(Unit 45 Manager)
Connie Herbold (Cancer Center/
Ca Conference Coord)

Alan Kimmel, MD (RehabilitationMed)
Felicity Kirby, RN (Survivorship Coord)
Marshall Levine, MD (Medical Oncology)
Kim Levinson, MD (GYN/Onc)
Barbara Messing, MA (H&N Center)
Virginia Moratz, CLT, OTR
(Rehabilitation Med)
Alex Munitz, MD (Radiology)
Karen Pitman, MD (H&N Surgeon)
Craig Randall, RTT (Radiation Oncology)
Frank Rotolo, MD (ACOS Liason)
Laura Schein (Community Outreach)
Lauren Schnaper, MD (Director, Breast)
Philip Shaheen, MD (Palliative Care)
Dawn Stefanik, RN (Outpatient
Infusion Services)
Mike Stein, (Executive Director/
Ca Program Admin)
Vanessa Stinson, CTR (Cancer Registry
Quality Coord)
Karen Ulmer, RN
(H&N Nursing/Qual Impr Coord)

Breast Program Leadership Committee

Lauren Schnaper, MD (Director, Breast)
Jennifer Billiet, MGC (Genetics)
Brandon Costantino
(Oncology Support Mgr)
Paul Celano, MD (Medical Director,
Cancer Institute)
Madhu Chaudhry, MD (Medical Oncology)
Judy Destouet, MD (Radiology)
Robert Donegan, MD (Medical Oncology)
Sara Fogarty, DO (Breast Surgery)
Clair Francomano, MD (Genetics)
Connie Herbold (Cancer Center)
Alan Kimmel, MD (Rehabilitation Med)
Virginia Moratz (Adm., Rehab Medicine)
Angela Murrell, NP-C (Breast Center)
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Geoffrey Neuner, MD (Radiation
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Kruti Patel, MD (Radiation Oncology)
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Frank Rotolo, MD (ACOS Liaison)
Sheri Slezak, MD (Plastic Surgery)
Michael Stein (Exec Director/
Ca Program Admin)
Vanessa Stinson, CTR (Cancer Registry)

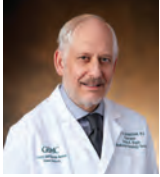


“The Sandra and Malcolm Berman Cancer Institute continues to be a leader in providing multidisciplinary care for patients with cancer. This is in keeping with our vision that personalized care must start with a patient’s concerns being addressed by a team of oncologists and other healthcare professions that carefully evaluates and considers all aspects of a patient’s condition.”

—PAUL CELANO, MD, FACP



GBMC ONCOLOGY LEADERSHIP TEAM



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Medical Director –
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Francis Grumbine, MD
Chairman – Gynecology and
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Oncology Multidisciplinary Care Conferences



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GBMC

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