MEET THE GASTROINTESTINAL CANCER TEAM

(from left to right)

SURGERY
William Cance, MD, FACS
Valerie Francescutti, MD
Steven N. Hochwald, MD, FACS
John Kane, MD, FACS
Boris Kuvshinoff, MD, FACS, MBA
Steven Nurrink, MD
Joseph Skizzi, MD
Neal Wilkinson, MD, FACS

MEDICINE
Renuka Iyer, MD
Wen Wee Ma, MBBS
Usha Malhotra, MBBS
Khalid Matin, MD

RADIATION
Graham Warren, MD, PhD

ADVANCED ENDOSCOPY
Andrew Bain, MD
Hector Nava, MD, FACS
Michael Schiff, MD, FACP

The Gastrointestinal (GI) Cancer Team at Roswell Park Cancer Institute (RPCI) diagnoses, treats and manages endocrine tumors and cancers of the upper and lower gastrointestinal tracts, providing specialized care for patients with adrenal, esophageal, stomach, hepatopancreatobiliary, small bowel, colon, rectal and anal cancer, including those with metastatic and late-stage disease. We offer patients the latest prevention, diagnostic and treatment approaches, and access to clinical research studies.

RPCI’s highly skilled and experienced nurses, nurse practitioners, hospitalists and dedicated patient navigators and coordinators help make your patient’s experience a positive one.

Instant Access for new patients

Every day counts when a patient has cancer. **Instant Access appointments** allow patients with newly-diagnosed or suspected gastrointestinal malignancy to have an initial evaluation **within 24 hours**. A faculty member will see your patient and provide prompt feedback outlining further diagnostics, treatment or need for comprehensive evaluation with our multidisciplinary team.

To request an Instant Access appointment, call: 1-800-ROSWELL (1-800-767-9355).
As the nation’s first National Cancer Institute-designated comprehensive cancer center, RPCI led the way putting the multidisciplinary treatment approach into practice. Every patient is assessed and treated by specialists from several disciplines of medicine—a team of physicians, rather than just one. RPCI’s multidisciplinary teams include surgical, medical and radiation oncologists, pathologists, diagnostic radiologists, nurses and nurse practitioners, and specialists in nutrition, psychology, pain management and social work.

“Surgery is the primary treatment for many GI cancers,” says Graham Warren, MD, PhD, Assistant Professor, Radiation Oncology, “but patients also have chemotherapy, radiotherapy and biologic targeted therapy before and/or after surgery.” Coordinating that care and ongoing follow-up is vital. At RPCI, these specialists are colleagues under one roof.

This approach is about more than convenience; it’s about better cancer care. Studies show an integrated team approach results in better treatment planning, increased likelihood of accurate management, a more comprehensive treatment plan and better outcomes. It begins at the Multidisciplinary Conference/Tumor Board where the team meets routinely to present their cases.

THE GOLD STANDARD FOR CANCER TREATMENT

“One patient has a unique cancer and a unique set of needs. With our multidisciplinary approach, we assess the patient as a whole, with experts from all fields of cancer medicine.”

– Graham Warren, MD, PhD

ONE-DAY CLINIC

This multidisciplinary clinic provides a one-day staging evaluation for newly-diagnosed GI cancer patients. The clinic day includes:

- CT scan, ultrasound and other diagnostics.
- multidisciplinary evaluation with faculty from medical, surgical and radiation oncology, gastroenterology, pathology, nutrition and genetic counseling.
- review of all clinical studies at multidisciplinary conference.
- presentation of comprehensive treatment plan to the patient.
RPCI offers the most advanced evidence-driven and outcome-based treatments, following National Comprehensive Cancer Network (NCCN) practice guidelines. In addition, RPCI physicians are instrumental in developing novel and improved treatment programs for patients with gastrointestinal malignancies. A patient’s treatment plan may include:

- Laparoscopic, robotic, or open surgery
- Intra-abdominal chemotherapy for advanced disease
- Complex endoscopic therapy (endoscopic radiofrequency ablation, endoscopic mucosal resection)
- Standard combinations of intravenous or oral chemotherapy and novel targeted therapies
- Individualized therapy based on molecular profiling
- Transcutaneous catheter-based ablation or embolization
- External beam, targeted conformal or stereotactic radiotherapy
- Clinical research studies

### Liver-Directed Therapies

- Laparoscopic or open liver surgery
- Portal vein embolization prior to liver surgery
- Radiofrequency (RFA) and/or microwave ablation
- Selective Internal Radiation Therapy (SIRT) for liver metastases
- Nanoknife Irreversible Electroporation (IRE)

### Therapies for Other Metastatic Sites

- Radiofrequency (RFA) and/or microwave ablation for lung metastases
- Hyperthermic Intraoperative Chemotherapy (HIPEC) for abdominal metastases
- Palliative care with a specialized treatment team

### Taking diagnosis to a new level

The best treatment decisions for patients with GI tumors are contingent on state-of-the-art imaging and diagnostics. Endoscopic ultrasound (EUS) is now available for imaging and fine-needle aspiration biopsy of esophageal, gastric, duodenal, pancreatic, and rectal lesions. The Gastrointestinal Center routinely utilizes the following diagnostic procedures:

- Angio-3D CT
- CT/PET scan
- Endoscopic Ultrasound (EUS)
- ERCP
- MRI/MRCP
- Image-guided biopsy

### A high-volume center for minimally invasive surgery

When it comes to specialized cancer surgery, experience matters. The surgeons of the GI team have high-volume experience in minimally invasive surgery for the entire gastrointestinal tract, as well as robotic surgery for cancers of the pancreas, esophagus, stomach, colon and rectum. “For minimally invasive tumor resections, our surgeons have procedure volumes that exceed several hundred and they have published outstanding results,” says Steven N. Hochwald, MD, FACS, Chief, Gastrointestinal Surgery.

### Liver-Biliary Treatment

At the time of diagnosis, “up to 20% to 25% of colorectal cancer patients already have liver metastases,” says Boris Kuvshinoff, MD, MBA, FACS, Associate Professor, Surgical Oncology and Director of the Liver and Pancreas Tumor Center. RPCI’s multidisciplinary GI team can offer patients with primary or metastatic liver tumors a range of therapeutic options.

“Patients with liver metastases can still be cured,” says Dr. Kuvshinoff. “If you resect the tumors and leave the patient with a healthy amount of normal liver—the patient does have a chance for a cure. In properly selected patients, you can have about a 50 percent chance of five-year survival.”

Successful hepatobiliary surgery demands specialized skills. “Hepatobiliary surgery should be done by surgeons with additional training and focus in this area and in a setting with specialized support from an anesthesia team, surgical team, interventional radiology team, and intensive care unit,” says Dr. Kuvshinoff. “All of our hepatobiliary surgeons have the training and expertise to perform this complex surgery.”

“As a research institution, RPCI can also introduce treatments that are novel to this field, including some only available through clinical research studies,” says William Cance, MD, FACS, Surgeon-in-Chief and Chair, Surgical Oncology.
it’s personal: targeting treatment to each patient

Just as no two cancer patients are exactly alike, the same can be said about their cancers. Each tumor is genetically different from another, and these differences can translate to one patient responding to treatment while another does not. At RPCI, we determine which patients will benefit from chemotherapy drugs like cetuximab and panitumumab, sparing others the costs and side effects of a treatment unlikely to help them, and directing them to a more appropriate option.

RPCI offers genetic testing, molecular profiling, tumor banking and other testing to determine whether a patient:

- has tumors with K-RAS, HER 2, c-Kit, EGFR overexpression or mutations.
- has tumors with high or low Ki67 proliferative index.
- would benefit from monoclonal antibody treatment or tyrosine kinase inhibitor therapy.
- needs adjuvant therapy after surgery and/or for stage II disease.

RPCI treats a high volume of rare cancers such as carcinoid and other neuroendocrine tumors. “It can be difficult to find resources and support for patients with these rare tumors,” says Renuka Iyer, MD. “The rarity makes it difficult to conduct large clinical trials and as a result, few FDA-approved therapies exist.” RPCI’s GI team can assess, diagnose and treat these rare tumors with a number of state-of-the-art local, systemic and combination strategies, including:

- novel oral and injectable targeted and biologic therapies
- surgical debulking
- chemoembolization
- radioembolization
- microwave ablation
- nanoknife
- clinical research studies
RPCI is the only center in New York State to offer this cutting-edge therapy,” says Joseph Skitzki, MD, surgical oncologist and Associate Member of the Department of Immunology.

As part of every patient’s multidisciplinary evaluation and treatment planning, RPCI’s radiation oncologists assess how radiation therapy can optimize the outcome for patients with GI cancers.

The RPCI Department of Radiation Medicine offers:

- board-certified, full-time, multidisciplinary radiation faculty including oncologists, dosimetrists, and medical physicists.
- radiation oncologists who specialize in GI malignancies for which tumor and treatment volume definitions are critical.
- the latest, evidence-based, conformal radiotherapy techniques to treat GI tumors.
- radiation therapy that’s planned and coordinated in concert with the patient’s on-site surgical and medical oncologists to provide the highest degree of comprehensive and fully integrated treatment.

“We perform several neoadjuvant therapies to improve surgical resectability, tumor control and survival while reducing the potential for treatment-related toxicity,” says Graham Warren MD, PhD. “These treatments can facilitate a curative surgery in some patients who were not surgical candidates at diagnosis.”

“Dose-painted” radiation for anal cancer

Radiation therapy for anal cancer must be particularly precise due to the sensitivity of the anus. RPCI offers intensity-modulated radiation therapy (IMRT), also called “dose-painted” radiation, to precisely target anal tumors with high-dose radiation while minimizing the exposure of healthy tissue in the small bowel, bladder, external genitalia, skin and bone marrow.

“The anal sphincter is spared and most patients don’t require a colostomy bag,” says Graham Warren, MD, PhD, Assistant Professor, Radiation Oncology. Reducing treatment interruptions leads to better outcomes and better quality of life. With a combination of chemotherapy and dose-painted IMRT, 75% of patients should be able to avoid lifelong colostomy resulting from anal surgery.

RPCI is one of only a few centers in North America that offers IMRT for anal cancer treatment.
Patients with carcinomatosis—metastatic cancer that has spread throughout the abdomen—may be candidates for cytoreduction and hyperthermic intraperitoneal chemoperfusion (HIPEC).

Surgery to remove all visible tumors is followed by a procedure that circulates heated chemotherapy drugs throughout the abdominal cavity. Because the drugs are restricted to the abdomen, very high doses can be used to kill cancer cells more effectively, improving survival, while reducing the drugs’ side effects on other healthy tissues and organs.

Cytoreduction/HIPEC is also used to treat mesothelioma, some cancers of the appendix, and occasionally for recurrent ovarian disease. Patients come to RPCI from across the United States and Canada for cytoreduction and HIPEC treatment.

“We have treated more than 100 patients with cytoreduction/HIPEC. In properly selected patients, the results can be phenomenal.”

With a robust research program, RPCI helps pioneer more effective treatments and prevention measures, providing patients with more options to maximize their chance for a cure. An emphasis on translational research allows us to develop our discoveries in the laboratory into promising therapeutics for patients—moving from bench to bedside—as quickly as possible.

Through clinical research trials, with more than 10 protocols currently open for GI cancers, our patients have access to some of the latest novel agents, targeted therapies, immunological strategies and other cutting-edge procedures. Some areas of current research involving GI cancers include:

**Role of vitamin D.** Assessing vitamin D analogues in combination with gemcitabine and/or cisplatin.

**Novel agents.** Examining molecules that inhibit signaling through the Akt-signaling pathway in patients with refractory biliary cancers. Targeting of fibroblast growth factor receptor signaling and apoptosis pathway for patients with pancreas, biliary, esophageal and gastric cancers.

**New treatment combinations.** Evaluating a new schedule of Pralatrexate in combination with Oxaliplatin using predictive molecular markers. Evaluating the benefit of adding antiangiogenic therapy to standard gemcitabine-based chemotherapy in biliary cancer.

**Cancer vaccines.** Teaching the immune system to recognize, fight and remember cancer cells as foreign invaders. Landmark immunotherapy trial of new dendritic cell based vaccine that targets cancer cells that express NY-ESO-1 is now underway.

**Cancer genesis.** Studying genetic signatures to identify markers that herald the progression from Barrett’s esophagus to esophageal adenocarcinoma.

**Quality of life.** Use of anti-inflammatory drugs to improve tolerability and quality of life in advanced hepatocellular cancer patients receiving sorafenib. Evaluating the impact of treatment, ie: IMRT, on patients’ daily living.

**Prevention.** Using a novel transgenic potato vaccine to prevent hepatitis B, the most common cause of hepatocellular cancer worldwide.
When you suspect or diagnose cancer in your patient, you want the best treatment and care available for that patient. At RPCI, we believe in a multidisciplinary team approach to care. As your patient’s primary physician, you remain a valuable part of this team. We will work closely with you and keep you informed of your patient’s care and progress. After your patient’s treatment has been completed, he or she returns to your care, and we will continue to provide assistance as needed.

With even a suspicion of cancer, your patient may call us and one of our referral professionals will answer questions and set up an appointment with the cancer care specialist best suited to discuss his or her care.

Patients may be referred by a physician or may directly seek a consultation and treatment. The Patient Referral Office is open Monday through Friday, 8:00 am to 5:00 pm.

Call 716-845-4799 or 1-877-ASK-RPCI (1-877-275-7724) and ask for GI scheduling.