

# The Neuro-Oncology Center



Roswell Park is the only **National Cancer Institute-designated comprehensive cancer center** in the state outside of New York City.

We provide expert, multidisciplinary treatment for **optimal survival** and **quality of life** for patients with malignant and benign brain, spine and peripheral nerve tumors.

## What Sets Us Apart

- **High-volume experience** in the full spectrum of neurosurgical approaches, including complex brain tumor, spinal tumor, and peripheral nerve surgery.
- **Multidisciplinary team**, including internationally renowned experts from neurosurgery, neuro-oncology, radiation medicine, neuroradiology, and neuropathology, who collaborate to develop the most effective, personalized treatment plan for each patient.
- **Gamma Knife radiosurgery** for minimally invasive treatment of brain tumors and select brain disorders, including trigeminal neuralgia and Parkinson's disease. Gamma Knife is a safer, cognition-sparing treatment that improves medical outcomes and quality of life.
- **Advanced imaging capabilities** such as functional MRI and tractography and other specialized techniques.
- **Access to clinical trials** offering the latest advances, including a cancer vaccine, SurVaxM, to treat glioblastoma



# The Neuro-Oncology Center

Our multidisciplinary team — internationally renowned and award-winning neurosurgeons, neuro-oncologists, radiation oncologist, interventional and neuroradiologists, and neuropathologists — works together to develop individual patient care strategies using evidence-based guidelines and personalized to tumor cell biology for the following malignancies and associated conditions:

- **Brain cancer** (glioblastoma, anaplastic gliomas, low grade gliomas and others)
- **Metastatic brain tumors**
- **Skull base tumors**
- **Rare tumors** (chordoma, chondrosarcoma, craniopharyngioma, hemangioblastoma and others)
- **Pituitary tumors**
- **Spinal tumors**
- **Peripheral nerve tumors and other nerve injuries**
- **Neurofibromatosis**
- **Trigeminal neuralgia/tic douloureux**
- **Acoustic neuroma**  
(vestibular schwannoma)



The most important factor in a patient's prognosis is the success and efficacy of their **very first treatment** — typically surgery. Your patient has only one chance at their first treatment.



# NEUROSURGEONS Who Focus on Tumors

Most neurosurgeons treat a wide range of neurological disorders and see very few of the more than 120 types of brain tumors. Our experienced and highly skilled, board-certified neurosurgeons focus on brain, spinal and peripheral nerve tumors and malignancies every day, with specialized experience in the following:



- **Microneurosurgery**
- **Endoscopic skull base surgery**
- **Computer-assisted spinal surgery**
- **Cutting-edge visualization with the Olympus ORBEYE®** for advanced magnification and 3D visualization during neurosurgery
- **Use of Gleolan (aminolevulinic acid)** tumor imaging during surgery
- **Advanced intraoperative monitoring of neural function**
- **Stereotactic navigation in the brain**
- **Awake craniotomy** for preservation of motor and language function during neurosurgery
- **Implant of advanced carbon fiber spinal instrumentation**

## LATEST ADVANCES in Imaging Technology



Our dedicated neuroradiologists employ state-of-the-art technologies to provide fast, accurate imaging, diagnosis, treatment planning and symptom management.

Highlights of our capabilities include:

- **Functional MRI (fMRI)** for pre-operative identification of language and motor cortex to enhance the safety of tumor removal
- **Tractography** for pre-operative definition of white matter pathways to protect neurologic function during neurosurgical procedures
- **Dotatate-PET imaging** to diagnose meningiomas non-surgically and identify extent of skull base involvement more completely

## Peripheral Nerve Surgery Expertise

Nerve injuries from tumors, surgery, trauma or compression can cause pain, dysfunction or disfigurement. We offer comprehensive evaluation and treatment options to improve pain and restore function.

### OUR SERVICES INCLUDE:

- **Nerve repair, reconstruction**
- **Nerve transfer**
- **Facial reanimation**
- **Targeted muscle reanimation**
- **Nerve decompression, treatment of nerve entrapments**
- **Functional restoration with tendon transfer**

# DEDICATED NEUROPATHOLOGIST Makes all the Difference



Because brain tumors account for fewer than 5% of all cancers, most pathologists will see very few of them over the course of their careers. **Jingxin Qiu, MD, PhD**, who heads Roswell Park's Neuropathology Service, is an exception. Roswell Park's fellowship-trained, board-certified neuropathologist, Dr. Qiu has extensive experience in the diagnosis of brain, skull base, pituitary, and peripheral nerve tumors.

In addition to identifying and classifying these tumors, Roswell Park performs advance testing of molecular and genetic tumor markers to help determine prognosis and potential tumor response to chemotherapy.

Roswell Park's Pathology & Laboratory Medicine department is the largest and most comprehensive in the region, with a staff of more than 200 experts.

## SPINAL Oncology Center

Incorporating the **latest treatments** with **optimal sequencing** for primary and secondary spine tumors

Roswell Park's Spinal Oncology Center is one of a select few centers dedicated solely to the treatment of spine tumors. Our multispecialty surgical team approach, including oncology surgeons from our thoracic, urology and gastrointestinal divisions, offers your patient a level of expertise unrivaled in the region.

We provide several approaches that should be considered before commencing other treatments:

- **New surgical techniques that decompress the spinal cord and stabilize the spine**
- **Minimally invasive thermal ablation**
- **Focused radiation**

As many as 50% of patients with cancer will develop metastases to the spine, most commonly arising from breast, lung or gastrointestinal malignancies.

Any patient with a history of cancer who is now experiencing new onset back or neck pain, or neurologic symptoms, should be referred for evaluation of possible spine metastases.

**Call us today at 716-845-RPMD.**

## Interventional Management for Spinal Fractures and Pain

Providing significant, long-term pain relief for improved mobility and quality of life.

- **Carbon fiber vertebral augmentation**
- **Vertebral radiofrequency ablation**
- **Balloon kyphoplasty**

# MAXIMIZING Medical Treatment

Our neuro-oncologists work hand in hand with our neurosurgeons and radiation oncologists to individualize treatment to overcome the blood-brain barrier and maximize efficacy for every patient.

The approach for your patient may include:

- Chemotherapy
- Biological therapy
- Immunotherapy
- Personalized medicine approaches based on specific molecular tumor analysis
- Clinical trials of new targeted agents



## PIONEERING Emerging Treatments

Roswell Park places strong emphasis on translational research — accelerating the transfer of discoveries from the laboratory to the clinic, so patients benefit faster. Our team focuses research on:

- **Development of new agents and new ways** to use existing cancer drugs or therapies.
- **Discovery of new targets or pathways** to attack the cancer.
- **Innovative uses of radiosurgery** for tumors that had previously not been treatable
- **Novel noninvasive imaging studies** to distinguish true tumor progression from radiation treatment effect
- **Expanding radiosurgery** treatment options

## SuRVaxM treatment vaccine for glioblastoma

Developed in the Neuro-oncology Laboratory at Roswell Park by neurosurgeon Robert Fenstermaker, MD and scientist Michael Ciesielski, PhD, SuRVaxM is a cancer vaccine to target survivin protein, present in glioblastoma cells. Based on positive results of phase I and phase IIa studies, large, multicenter randomized phase IIb studies of this immunotherapy are poised to begin.





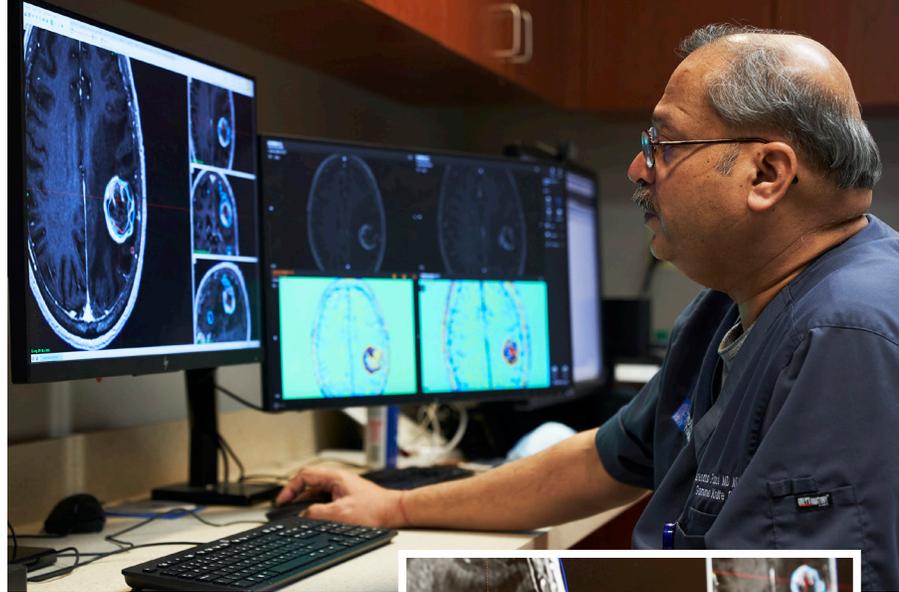
# GAMMA KNIFE RADIOSURGERY

## Offers Minimally Invasive Treatment

A safer, cognition-sparing treatment that improves medical outcomes and quality of life.

Gamma Knife radiosurgery is now a first-line treatment for multiple brain tumor types, a new standard-of-care for multiple brain metastases, and an important option for recurrent disease and deep-seated tumors not accessible with conventional neurosurgery. Gamma Knife has minimal side effects and generally does not delay or interrupt systemic treatment. An outpatient procedure, patients usually return to normal activities within 24 hours.

Roswell Park is the only center in the region to offer cranial radiosurgery with Gamma Knife and treats more than 500 patients annually. Our neurosurgeons and radiation oncologists have performed the advanced radiosurgery on nearly 9,000 patients across the country and around the globe.



# NEUROFIBROMATOSIS CLINIC

## Streamlines Complex Care



Roswell Park's comprehensive Neurofibromatosis Clinic offers multispecialty care to adults with any form of neurofibromatosis, including NF1, NF2 and schwannomatosis. Our multidisciplinary approach includes:

Providing surveillance, supportive services, and access to the latest treatments in one location by the experts who know tumors best. Care is consolidated into one visit to save time and resources for adult patients with neurofibromatosis.

- **Clinical geneticist** to confirm diagnosis and guide testing of family members
- **Experienced diagnostic radiologists** to provide consistent, high-quality imaging studies including whole body, brain and spine MRI.
- **Neurosurgeon, neuro-oncologist, soft tissue medical and surgical oncologists** for expert tumor surveillance and treatment
- **Plastic & reconstructive surgeon** for tumor removal options when skin tumors cause pain or impact function or cosmesis.
- **Pain medicine physician** for management of complex pain problems that can be associated with the condition.
- **Supportive care services** from experts in pain management, social work, and our Young Adult cancer program to address impact of the genetic condition and provide referrals to community support networks.

## COMPREHENSIVE Supportive Care

At Roswell Park, we care for the whole person, not just their cancer. Patients are surrounded by a range of clinical and supportive services to address their physical, emotional, spiritual and practical needs.



### Some of the services most beneficial to patients with neurological tumors or conditions include:

- Rehabilitation medicine, including physical, occupational, and speech and language therapy
- Skin and wound care
- Nutrition counseling and services
- Financial counseling
- Psychosocial support
- Palliative care, including pain and symptom management, spiritual care
- Survivorship care

At Roswell Park, we do more than follow the National Comprehensive Cancer Network clinical practice guidelines; we write them.

# Meet the Team

Andrew J. Fabiano, MD, FAANS, sits on the NCCN panel that creates the national treatment guidelines for glioma and central nervous system cancers.



## Neurosurgery

- 1 Andrew J. Fabiano, MD, FAANS
- 2 Robert Fenstermaker, MD, FACS, FAANS
- 3 Lindsay Lipinski, MD, FAANS
- 4 Robert Plunkett, MD, FAANS

## Neuro-Oncology

- 5 Ajay Abad, MD
- 6 Chinazom Ibegbu, MD
- 7 Laszlo L. Mechtler, MD, FAAN, FASN

## Radiation Oncology

- 8 Dheerendra Prasad, MD, MCh, FACRO

## Neuroradiology

- 9 Ronald Alberico, MD
- 10 Ahmed Belal, MD

## Pathology

- 11 Jingxin Qiu, MD, PhD

## Contact Us

To consult with one of our physicians, seek an opinion or refer a patient, call **716-845-RPMD** (716-845-7763).



Your patient may prefer to receive cancer care closer to home at one of our Roswell Park Care Network practices, in these convenient locations:

**ROSWELL PARK NORTHTOWNS**  
Williamsville, NY

**ROSWELL PARK SOUTHTOWNS**  
Orchard Park, NY

**ROSWELL PARK JAMESTOWN**  
Jamestown, NY

**ROSWELL PARK BREAST SURGERY & MAMMOGRAPHY**  
Williamsville, NY

**ROSWELL PARK DERMATOLOGY**  
Depew, NY

**ROSWELL PARK UROLOGY**  
Niagara Falls, NY

Learn more about the services offered at each location at [RoswellPark.org/CareNetwork](http://RoswellPark.org/CareNetwork)



Elm & Carlton Streets | Buffalo, NY 14263

[www.RoswellPark.org/rpmd](http://www.RoswellPark.org/rpmd) | 716-845-RPMD (716-845-7763)