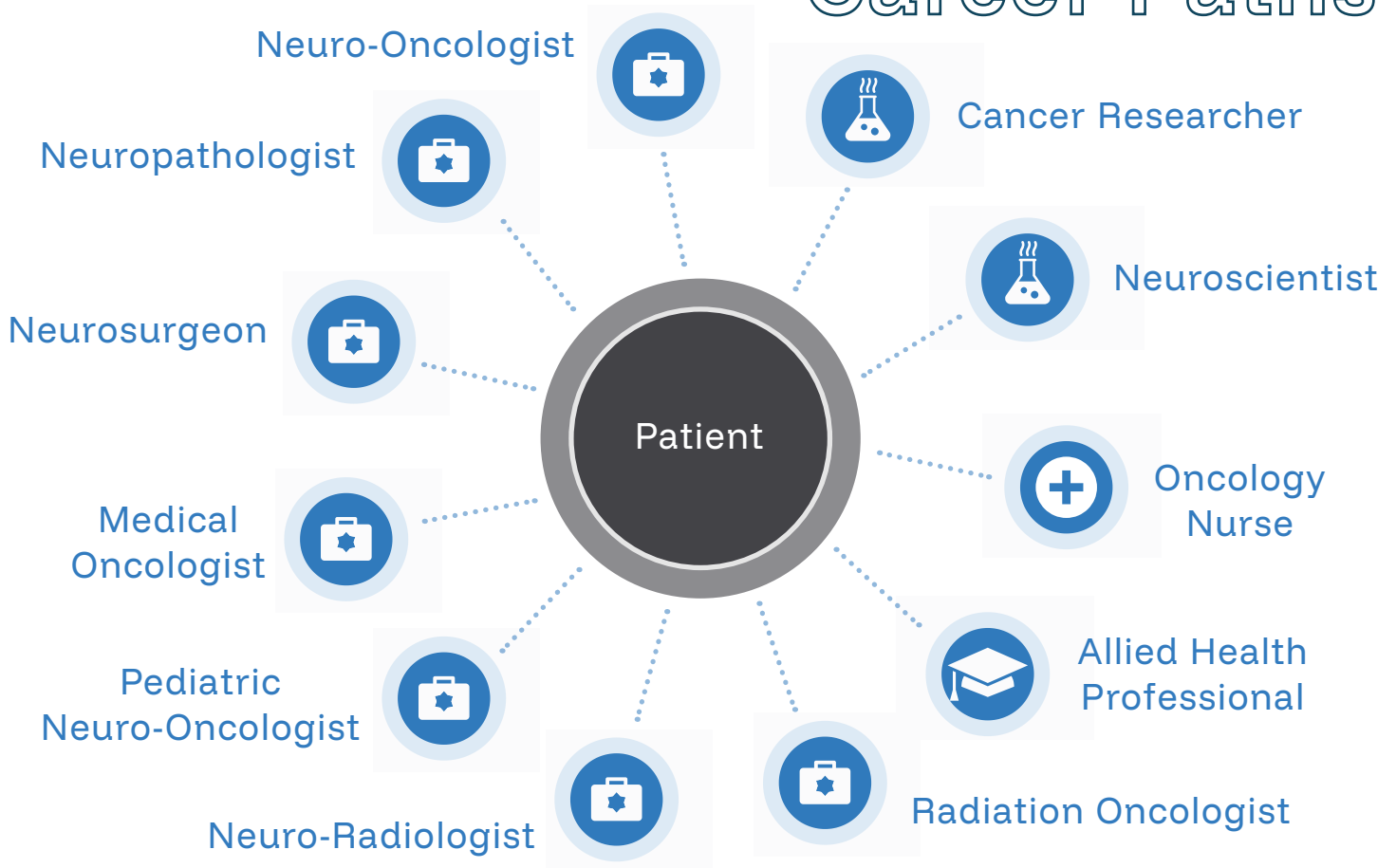


Brain cancer affects children and adults of all ages. These are rare tumors that make up only 1.4% of all cancers and include many distinct tumor types. **Neuro-oncology includes medical and scientific professionals from a variety of disciplines** all dedicated to caring for patients with brain and spine tumors, enhancing our understanding of these cancers, and discovering new treatments.

Career Paths



Why?

- Make a difference in the lives of people with brain tumors
- Think creatively, compassionately, and scientifically about each individual patient
- Work in multidisciplinary teams
- Make cutting-edge scientific discoveries
- Advance treatments for patients with limited options

- Medical School to Residency (MD/DO)
- Graduate School (PhD)
- Nursing School (RN/OCN)
- Other Scholarly Paths (PT, OT, SLP, LCSW, APRN, PA, PharmD)

Physician Pathways



Neuro-Oncologist

Doctor specializing in the diagnosis and treatment of brain and spinal cord tumors, both primary and metastatic. They oversee the comprehensive care plan, including prescribing and managing chemotherapy, managing neurological symptoms, coordinating with other specialists (neurosurgery, radiation oncology), and monitoring the disease.

Pathway: Medical School --> Neurology Residency (4 years)--> Fellowship in Neuro-Oncology (usually 2 years)

Neurosurgeon

Surgeon specializing in brain and spine. Involved in biopsy and resection (removal) of benign and malignant tumors.

Pathway: Medical school--> Neurosurgery Residency (7 years) +/- Neurosurgical Oncology Fellowship (1 year)

Neuropathologist

Doctor who analyzes tumor tissue and makes a molecular and histological diagnosis of brain tumors. Works closely with the team of doctors but does not directly see patients.

Pathway: Medical school--> Pathology Residency (4 years)--> Fellowship in Neuro-Pathology (2 years)

Medical Oncologist

Doctor who treats and cares for patient with cancer. Medical oncologists treat all different types of cancer, including cancer that metastasizes to the brain and primary brain tumors. They oversee the comprehensive care plan, including prescribing and managing chemotherapy, managing symptoms, coordinating with other specialists, and monitoring the disease.

Pathway: Medical School--> Internal Medicine Residency (3 years)--> Fellowship in Hematology/Oncology (3 years)

Pediatric Neuro-Oncologist

Doctor specializing in the diagnosis and treatment of brain and spinal cord tumors in children. They oversee the comprehensive care plan, including prescribing and managing chemotherapy, managing neurological symptoms, coordinating with other specialists, and monitoring the disease.

Pathway: Medical School-->Residency in Child Neurology (5 years) or Pediatrics (3 years)--> Fellowship in Pediatric Oncology (3 years) and/or Neuro-Oncology (1 year)

Neuro-Radiologist

Doctor who diagnoses brain and spine cord tumors based on imaging review of MRI and CT scans. Works with multidisciplinary teams but does not directly see patients most of the time, though may do procedures (such as lumbar punctures) with patients.

Pathway: Medical School--> Residency in Radiology (5 years)--> Fellowship in Neuro-Radiology (1 year)

Radiation Oncologist

Doctor who treats cancer with radiation. Oversees and develops the radiation plan. Manage radiation, manage symptoms, and coordinate with other specialists.

Pathway: Medical School--> Residency in Radiation Oncology (5 years)

Graduate School Pathways



A number of pathways through graduate school can lead to a career in brain cancer and brain tumors. This may include initial training in cell and molecular biology, biochemistry, cancer biology, neuroscience, epidemiology, pharmacology, genetics, biostatistics, and biomedical engineering. Many neuro-oncology researchers have a PhD degree in their field followed by post-doctoral training. Others have masters' degrees. Some physician-scientists have dual degrees and contribute to patient care and fundamental science.

Nursing Pathways

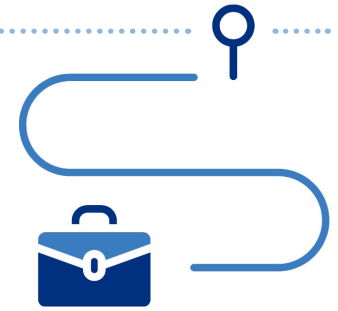


Nurses are essential to the clinical care of neuro-oncology patients. Nursing pathways including multiple degree types including Registered Nurse (RN), Advanced Practice Registered Nurse (APRN) and Doctor of Nursing Practice (DNP). Nurses can also receive specialty certification in oncology (OCN) Oncology Nurse Oncology Nurse Practitioner.

Allied Health Pathways



The comprehensive care for neuro-oncology patients includes physician assistants and nurse practitioners, pharmacists, social workers and case managers, therapists and psychologists, physical therapists, occupational therapists, speech and language pathologists, nutritionists—all of whom have their own training pathway.



Opportunities to Get Involved

- Society of Neuro-Oncology
- Clinical shadowing
- Research internships and experiences
- Student organizations and conferences
- Mentorship programs

Learn More

Interested? Scan here to connect with resources, opportunities, and mentors.

