

Hematologic Cancer Care

The region's elite resource for the treatment of hematologic malignancies and disorders.



Roswell Park is the only National Cancer Institute (NCI) designated comprehensive cancer center in the state outside of NYC.



WHAT SETS US APART

- Experienced, nationally and internationally recognized experts dedicated to treating patients with hematologic malignancies and disorders.
- Rapid integrated diagnosis from a dedicated team of hematopathologists, cytogeneticists and flow cytometry and molecular biology experts.
- **Cellular therapies** such as chimeric antigen receptor (CAR) T-cell therapies for relapsed or refractory disease.
- Novel targeted therapies or intensified regimens based on the cancer's genetic and molecular profile.
- Clinical trials that offer access to the most promising emerging options.
- Gene therapy. We will soon offer Casgevy[™] (exagamglogene autotemcel) and Lyfgenia[™] (lovotibeglogene autotemcel) for sickle cell disease.

Partners In Practice medical information for physicians by physicians



Conditions we treat

We provide specialty care for any malignant hematologic disease or associated condition, including:

+ LEUKEMIAS

- Acute myeloid leukemia
- Acute lymphocytic leukemia
- Chronic myeloid leukemia (CML)
- Chronic Lymphocytic leukemia (CLL)
- Hairy cell leukemia
- Myelodysplastic syndromes
- Myeloproliferative neoplasms
- Bone marrow failure disorders

+ LYMPHOMAS

- Hodgkin lymphoma
- Non-Hodgkin lymphoma
- B-cell and T-cell lymphomas
- Mantle cell lymphoma
- Small lymphocytic lymphoma (SLL)
- Cutaneous T-cell lymphoma

+ PLASMA CELL DISORDERS

- Multiple myeloma
- Smoldering multiple myeloma
- AL amyloidosis
- Plasma cell leukemia

Our patient-centered approach brings the expertise of a deep and highly specialized team, including leading hematologic oncologists, hematopathologists, transplant specialists and more to create a personalized treatment plan.

HEMATOPATHOLOGY at **ROSWELL PARK** Taking Diagnosis to a **NEW LEVEL**



Leukemias, lymphomas, and myeloma are a diverse and heterogeneous group of malignancies, with many subtypes and variations, and each with distinct pathophysiology, clinical behavior, response to treatment and prognosis.

Our board-certified hematopathologists ensure precise and thorough diagnosis integrating a complex array of diagnostics from the following support laboratories:

BONE MARROW LABORATORY

IMMUNOHISTOCHEMISTRY LABORATORY

FLOW & IMAGE CYTOMETRY LABORATORY

CYTOGENETIC LABORATORY



MOLECULAR DIAGNOSTIC Laboratory

Non-malignant blood disorders

We have the specialists your patient needs, backed by the resources of a nationally recognized center, to provide comprehensive and streamlined hematology care for these conditions:

- + Amyloidosis, including ATTR, AA
- + Aplastic anemia
- + Autoimmune hemolytic anemia
- + Blastic plasmacytoid dendritic cell neoplasm
- + Bone marrow failure disorders
- + Coagulation disorders
- + Deep vein thrombosis
- + Disseminated intravascular coagulation
- + Hemochromatosis
- + Hypercoagulable state or thrombophilia
- + Ideopathicthrombocytic purpura
- + Iron-deficiency anemia
- Monoclonal gammopathy of undetermined significance (MGCS, MGUS)
- + Myelofibrosis
- + Myelodysplastic syndromes
- + Myeloproliferative neoplasms
- + Paroxysmal nocturnal hemoglobinuria
- + Pernicious anemia
- + Platelet aggregation abnormalities
- + POEMS syndrome
- + Polycythemia vera
- Systemic mastocytosis and mast cell disorders
- + Thalassemia syndromes
- Thrombocythemia and thrombocytosis
- + Thrombotic thrombocytopenic purpura
- + Von Willebrand disease

PERSONALIZED Care for **EVERY PATIENT**

While chemotherapy remains a component of treatment, the latest approaches using targeted agents and/or immunotherapies to target critical molecular, genetic or biologic aberrations unique to blood cancers allow us to further personalize and optimize care.



These cutting-edge options — a potentially more effective and less toxic treatment — may include:

- FLT3 inhibitors for FIT3-mutated disease
- Antibody drug conjugates
- Bispecific antibodies
- BCL2 inhibitors
- Next-generation monoclonal antibodies
- Immunomodulatory agents such as interferon, lenalidomide, pomalidomide
- Epigenetic therapies such as panobinostat



RADIOTHERAPY APPROACHES

INVOLVED FIELD RADIATION THERAPY (IF-XRT) External beam radiation therapy Total skin radiation Gamma knife

While functional imaging helps us to identify which patients could omit radiation therapy, a significant number of Hodgkin's lymphoma and DLBCL patients may require consolidation therapy following front-line or second-line chemotherapy. Roswell Park uses the following radiotherapy techniques for patients with lymphomas:

+ Involved field radiation therapy (IF-XRT) is used for consolidation therapy to target the site of any involved organs or lymph nodes.

Because these nodes have generally been removed, determining the appropriate treatment field requires CT-based simulation and planning capabilities, PET and MRI.

- External beam radiation therapy for selected patients with central nervous system (CNS) lymphoma who are not suitable for intense chemotherapy
- + Total skin radiation for patients with cutaneous T-cell lymphoma
- + Gamma Knife for selected patients with primary CNS lymphoma

CLINICAL TRIALS

Patients with hematologic

malignancies can't wait

for months for final FDA

they need them now.

approval of the latest options;

We currently have more than 30 clinical trials open and include early phase agents such as:

- 'Armored' CAR T-cell therapy engineered to secrete interleukin 12
- Next generation CAR T-cell therapies for new targets such as CD-19, CD-20, CD-22, CD-123
- Novel agents including tyrosine kinase inhibitors, small molecule inhibitors, FLT3 inhibitors, monoclonal antibodies and menin inhibitors
- Conditionally-activated IL-12 prodrug
- Anti-PD-1/CD3 bispecific antibody
- New options for patients with rare disease variants



Scan for a list of all currently available clinical trials at Roswell Park. New trials open every day. Roswell Park is designated a Blue Distinction Center® by BlueCross BlueShield for Transplant, based on superior measures for patient safety and outcomes.

TRANSPLANT & CELLULAR Therapy Center



Roswell Park's high-volume **Transplant & Cellular Therapy Center** provides hematopoietic cell transplantation to patients of any age with lymphoma, multiple myeloma, acute and chronic leukemia, selected solid tumors and other malignant and non-malignant hematologic disorders.

We offer customized transplant and cellular therapies, including:

- · Autologous transplant
- Chimeric Antigen T-cell (CAR T) Therapy for relapsed/refractory B cell malignancies.
- Allogeneic transplant with expertise in HLA-mismatched transplant
- Haplo-identical transplant
- Gene therapy

- Reduced intensity and non-myeloablative transplant
- Tumor-infiltrating lymphocyte (TIL) therapy
- On-site blood and marrow collection and processing in dedicated apheresis unit and hematopoietic stem cell processing laboratory

IMPROVED OUTCOMES for Stem Cell Transplant

We use the latest strategies for optimizing cure rates and decreasing complications and relapse, including:

- + **Prioritizing age <40 for donor selection,** even if it means going to an unrelated matched or mismatched donor.
- + **GVHD prophylaxis** with post-transplant cyclophosphamide-based regimens.
- Reduced duration of immune suppression, initiating taper of systemic immune suppression by day +60.
- + Early discharge post-transplant

CHIMERIC ANTIGEN RECEPTOR (CAR) T-CELL Therapy

CAR T-cell therapies, made from a patient's own T cell lymphocytes, offer new hope and potentially curative options for patients with relapsed or refractory disease, including:

- Large B cell lymphoma
- Mantle cell lymphoma
- Follicular lymphoma
- Acute lymphoblastic leukemia
- Multiple myeloma

ROSWELL PARK IS AN AUTHORIZED TREATMENT CENTER FOR ALL FDA-APPROVED CAR T-CELL THERAPIES:

⊘ Abecma [™]	Ø Kymriah™
Ø Breyanzi™	⊘ Tecartus™
⊘ Carvykti™	⊘ Yescarta™

With CAR T-cell therapies, the patient's T cells are collected, genetically modified to recognize and attack cancer cells, multiplied into the millions, and infused back into the patient.



DELIVERING THE NEXT GENERATION OF CELL & GENE THERAPY

NEW YORK STATE'S FIRST CELL and GENE

to develop life-saving technologies and innovative engineered cell treatments.

THFRAPY **hub**

Cell therapy requires the ability to engineer and manufacture therapeutic cells in a sophisticated, dedicated facility built for that purpose. Few centers across the country were involved in cell-based cancer treatments at any level when we opened our Therapeutic Cell Production Facility with one GMP cell production "clean room" in 2010.

Today, our facility includes six cell production clean rooms — and 14 more are under construction now!

Our in-house cell production eliminates the need to rely on external manufacturing partners and helps us to open more clinical trials faster. Patients who need these treatments don't have time to wait.

RoswellPark.org/GMP

Yeong "Christopher" Choi, PhD, MBA, led the first iteration of cell therapy production at Roswell Park with a focus on dendritic cell vaccines and engineered T cell receptors (TCRs). Today, he is expanding the facility to manufacture and test new and emerging cellular therapies.



AT ROSWELL PARK, **WE TREAT THE WHOLE PATIENT,** NOT JUST THE CANCER.



Clinical PHARMACY Support

Clinical pharmacy specialists play a key role in a patient's cancer care in both inpatient and outpatient settings. Two clinical pharmacists dedicated to the hematology services work closely with the physicians, nurse practitioners and physician assistants to optimize each patient's pharmacological treatments.

OUR PHARMACY SPECIALISTS PROVIDE:

- · Monitoring of all therapeutic drugs for the patient
- One-on-one education for patients starting chemotherapy
 or changing drugs in their regimen
- Recommendations for growth factor support, antiemetics, pain control, renal and hepatic insufficiencies, and other supportive care issues
- Medication review and patient discharge counseling

Supportive **CARE**

Most patients and families don't have the knowledge or time to prepare for the demands of a cancer journey, which may involve a hospital stay or home care needs. While the services provided through the departments of **Social Work** and **Supportive & Palliative Care** are beneficial to many cancer patients, they are often essential for those with hematological diagnoses, and include:

- · Educational programs about the cancer and its treatment
- · Assistance with FMLA, sick leave and disability processes
- · Arrangement of lodging, transportation or language/interpreter needs
- · Linkage with programs and other community resources
- · Counseling and support groups for patients and caregivers
- Assistance with advance care planning, palliative care, and/or hospice referrals as needed
- · Nutrition counseling and tobacco cessation program
- Home care needs
- Young Adult program offering workshops, social events and supportive care to address unique needs of patients in their 20s and 30s.



Our Rehabilitation Center helps patients regain strength and mobility and relieve symptoms such as pain and neuropathy.



Meet the Team



Leukemia

- Eunice Wang, MD, Chief
 - Leukemia/Benign Hematology Service
- Elizabeth Griffiths, MD
- James Thompson, MD
- 4 Steven Green, MD
- 9 Pamela Sung, MD

Lymphoma and CLL

- Ehsan Malek, MD,
 - Interim Chief, Lymphoma Service
- Matthew Cortese, MD, MPH
- 8 Francisco Hernandez-Ilizaliturri, MD
- Alex Niu, MD
- Grant Schofield, MD

Multiple Myeloma

- Jens Hillengass, MD, PhD Chief, Myeloma Service
- Hamza Hassan, MD

Transplant & Cellular Therapy

- Shernan Holtan, MD, Chief, Blood and Marrow Transplantation Service
- Renier Brentjens, MD, PhD
- Marco Davila, MD
- Brian Betts, MD
- Philip McCarthy, MD
- Maureen Ross, MD, PhD
- Dorothy Pan, MD
- Orant Schofield, MD

We offer this 24/7 hotline to provide consultations, facilitate transfer, and assist physicians in helping their patients get specialty care sooner.

(833) 353-1390



Call us today to discuss a case, confirm a diagnosis or refer a patient.





Your patient may prefer to receive cancer care closer to home at one of our Roswell Park Care Network practices. Visit **RoswellPark.org/CareNetwork** for a list of locations, providers and the services they offer.



Elm & Carlton Streets | Buffalo, NY 14263 | RoswellPark.org/RPMD | 716-845-RPMD (716-845-7763)

National Cancer Institute-Designated Comprehensive Cancer Center | National Comprehensive Cancer Network Member Blue Distinction® Center for Cellular Immunotherapy - CAR-T | Blue Distinction® Center for Cancer Care | Blue Distinction® Center for Transplants