NewYork-Presbyterian

ONCOLOGY in FOCUS

Bone Marrow and Stem Cell Transplantation at NewYork-Presbyterian Hospital

Bone marrow and stem cell transplantation have become part of the standard of care for patients with hematologic malignancies and as well as benign disorders like aplastic anemia. Today these therapies are safer and available to more patients, including older individuals and patients lacking fully matched donors. NewYork-Presbyterian Hospital has been a leader in bone marrow and stem cell transplantation and is expanding our program with innovative services based on the latest advances.

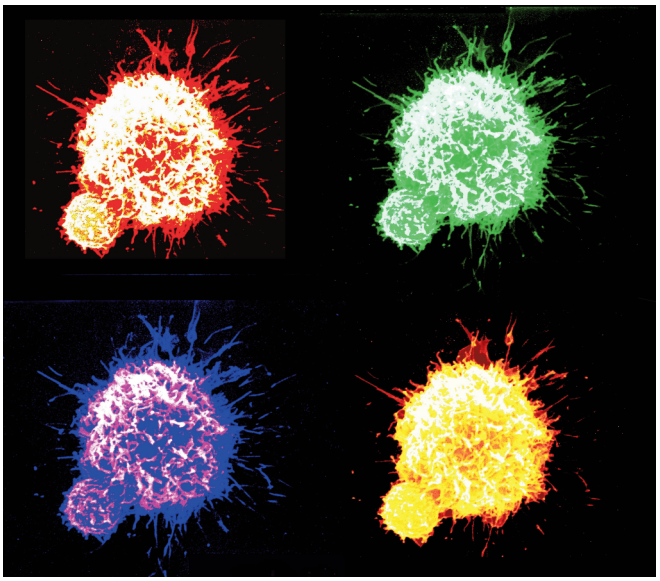
Care is delivered at our two campuses: through the Bone Marrow and Peripheral Blood Stem Cell Transplantation Program at Weill Cornell Cancer Center, and (starting in March 2012) through the Blood and Marrow Transplant Program at the National Cancer Institute-designated Herbert Irving Comprehensive Cancer Center at Columbia University.

Types of Transplantation

NewYork-Presbyterian Hospital offers the following types of hematopoietic transplants:

- **Autologous stem cell transplantation (via bone marrow harvest or peripheral blood stem cell removal):** This technique is commonly used to rebuild the blood-forming systems of patients who receive intensive chemotherapy, including select patients with lymphoma or multiple myeloma.
- **Allogeneic bone marrow and stem cell transplantation (including matched unrelated donor stem cell transplantation):** Transplantation of bone marrow or stem cells from a healthy donor is a standard of care for certain leukemias as well as non-cancerous hematologic disorders. More than half of our current transplants are allogeneic.
- **Cord blood transplantation:** Umbilical cord blood is a rich source of stem cells, which can be used to repopulate the hematopoietic system in select patients without a matched stem cell donor.
- **Reduced intensity ("mini") transplantation:** This approach uses lower doses of chemotherapy and little or no radiation therapy to eradicate cancer cells prior to transplant. This safer alternative is an option for older patients with chronic leukemia, lymphoma, or multiple myeloma who may not be able to tolerate a traditional transplant.

NewYork-Presbyterian/Weill Cornell has a long history with the National Marrow Donor Program and is one of the nation's largest centers for collecting bone marrow and stem cell donations. We also have an excellent working relationship with organizations such as Gift of Life and the German Bone Marrow Donor Center (DKMS). The program is accredited by the Foundation for the Accreditation of Cellular Therapy (FACT).



ADVANCES IN IMMUNOLOGY ARE IMPROVING TRANSPLANTATION OUTCOMES. SHOWN HERE: DENDRITIC CELL INTERACTING WITH A T CELL (SOURCE: PAWEL KALINSKI, MD, PHD)

What We Treat

We treat multiple myeloma, acute and chronic leukemia, Hodgkin and non-Hodgkin lymphoma, solid tumors, severe autoimmune disorders and AIDS, aplastic anemia, sickle cell disease, myelodysplastic syndromes, and thalassemia. The strength and reputation of our hematologic malignancy programs are exceptional assets for both campuses.

We also recognize that bone marrow and stem cell transplantation can require a lengthy period of treatment and affect all facets of the lives of our patients and their families. Our team therefore includes dedicated specialists to assist with psychosocial support, nutritional support, financial guidance,

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NewYork-Presbyterian
525 East 68th Street
New York, NY 10065

Offering allogeneic and autologous bone marrow and stem cell transplantation for malignant and benign hematologic disorders

Bone Marrow Program and Stem Cell Transplantation continued from front

and coordination of care. Our hematologic oncologists and oncology nurses are also well-versed in the management of complications such as graft-versus-host disease (GVHD), infections, and graft failure.

Research Opportunities

Our investigators collaborate with basic science researchers, including cell and molecular biologists and transplant immunologists, to enhance our understanding of immunology and apply new discoveries to patient care. A particular focus at NewYork-Presbyterian/Columbia, in close collaboration with the Columbia Center for Translational Immunology (CCTI), is the development of novel approaches to reduce the risk of allogeneic transplantation-induced complications like GVHD while preventing disease recurrence, especially in the setting of mismatched donor transplants.

Clinical research opportunities for patients include:

- **Autologous transplantation:** Several studies investigate novel medications to improve autologous stem cell transplantation outcomes for myeloma patients. Working with our lymphoma and myeloma specialists, we also provide autologous transplants for patients with refractory lymphoma who have otherwise limited options.
- **Related and unrelated donor transplantation:** We are one of the few centers offering chemotherapy induction as a "bridge to transplant" for patients with refractory leukemia with limited options. Our transplant conditioning regimens minimize acute and chronic GVHD, reducing the late side effects of transplant.
- **Haplo-cord transplantation:** NewYork-Presbyterian/Weill Cornell is the only center in our area evaluating haplo-identical cord transplantation, in which patients receive stem cells from a partially matched family member in addition to umbilical cord blood. Haplo-cord transplantation is associated with faster engraftment, durable remission, and low GHVD risk. It is being assessed primarily in patients with leukemia, lymphoma, or multiple myeloma without a matched donor. About half of patients with leukemia in remission and 30 percent of those with refractory disease obtain prolonged remissions.
- **Combination bone marrow/solid organ transplantation:** NewYork-Presbyterian/Columbia will be evaluating the combined transplantation of bone marrow and a solid organ from the same donor to treat certain patients with hematologic disorders and kidney failure. Pioneered by CCTI investigators, a combined bone marrow/kidney transplant can lead to long-term control of the cancer and acceptance of the kidney without the need for lifelong immunosuppression (due to the development of immune tolerance) in patients with multiple myeloma who had developed end-stage renal disease and required a new kidney. Because the new organ and the bone marrow come from the same donor, they "peacefully co-exist." This approach has also been successfully used in patients without underlying malignancies.

To refer a patient for bone marrow or stem cell transplantation, please call:
NewYork-Presbyterian/Columbia University Medical Center, 212-305-5098
NewYork-Presbyterian/Weill Cornell Medical Center, 212-746-2048
For more information, visit nyp.org/cancer

BEST HOSPITALS USNews HONOR ROLL 2011-12

For 11 consecutive years, NewYork-Presbyterian Hospital has been listed on the prestigious "Honor Roll" of the U.S. News & World Report "Best Hospitals" survey, and is ranked #1 in the New York metro area. NewYork-Presbyterian has the most physicians listed in New York Magazine's "Best Doctors" issue and is recognized by Castle Connolly for having more top doctors than any other hospital in the nation.