



Research and Treatment Options for **HEMATOLOGIC CANCERS**

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Section of Hematology

Lymphoma

Multiple Myeloma

Leukemia

Myelodysplastic Syndrome

Clinical Spectrum of B-cell Dyscrasias

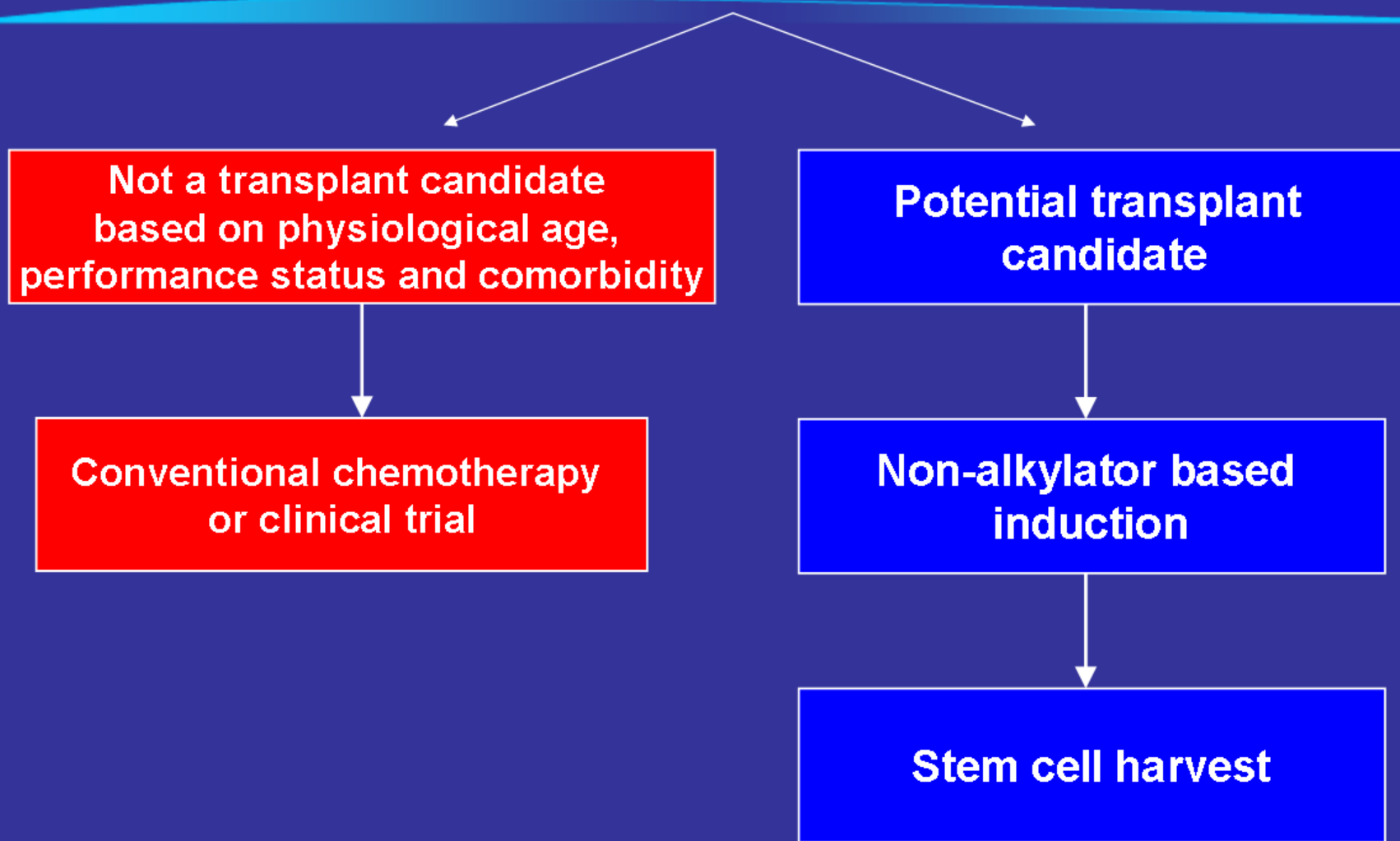
- MM
- Solitary plasmacytoma
- MGUS
- Waldenström's macroglobulinemia
- Non-Hodgkin's lymphoma
- Lymphoplasmacytic lymphoma
- Primary amyloidosis
- Cryoglobulinemia
- Heavy chain disease
- Other B-cell immunoproliferative disorders

Multiple Myeloma

Multiple Myeloma

- **Malignancy of plasma cells**
- **Hallmarks:**
 - Anemia
 - Renal failure
 - Bone destruction (lytic bone lesions)
 - Hypercalcemia
 - Presence of monoclonal protein
 - Increased risk of infection

Initial Approach to Treatment of Symptomatic Multiple Myeloma



Leukemia

Acute:

Acute Lymphoblastic Leukemia

Acute Myeloid Leukemia

Chronic:

Chronic Lymphocytic Leukemia

Chronic Myeloid Leukemia

Acute Lymphoblastic Leukemia in children

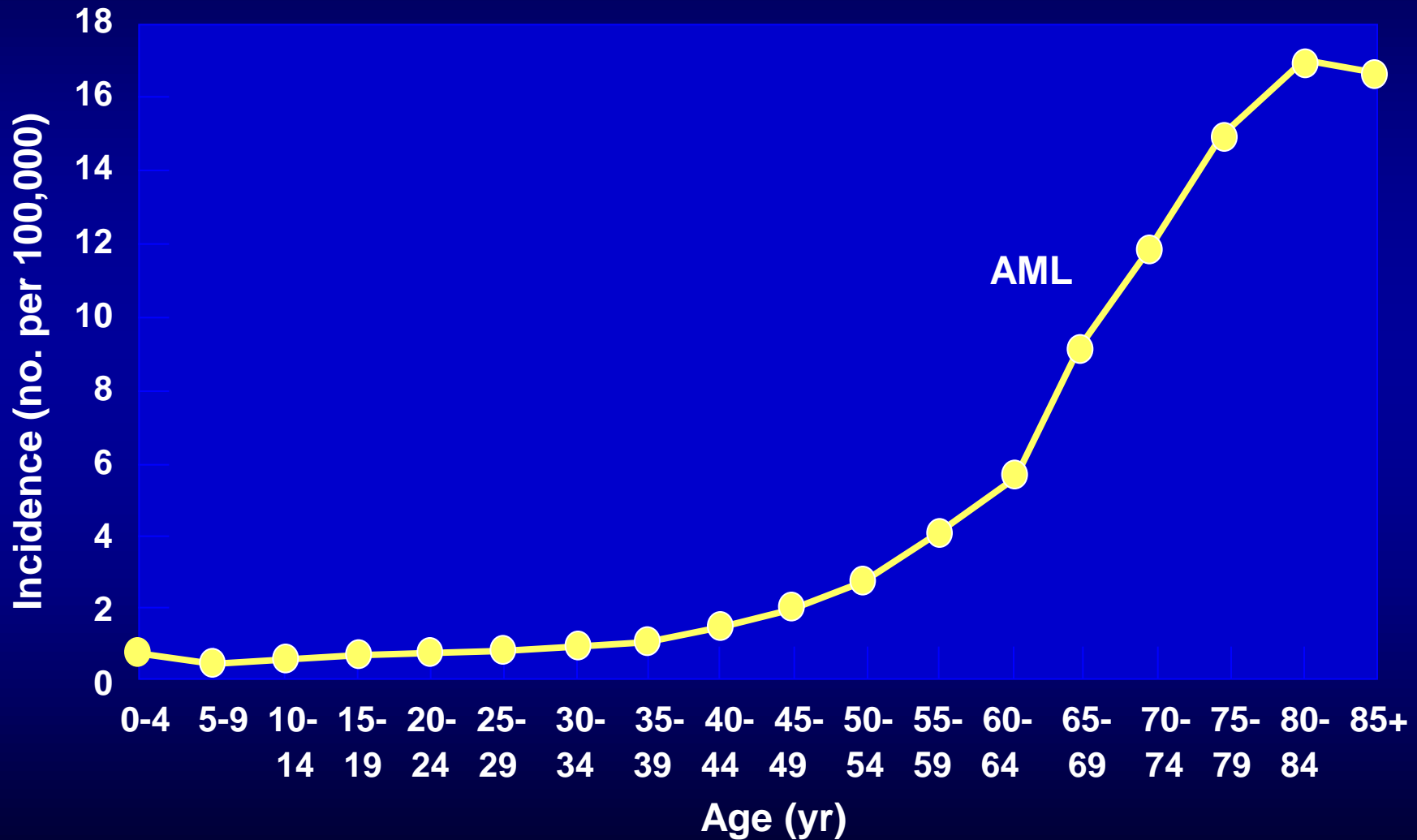
Remission 97%

Cure 85%

Study in Adolescents and Young Adults

Melissa L. Larson, MD

Age-Specific Incidence Rates: 1988-1992

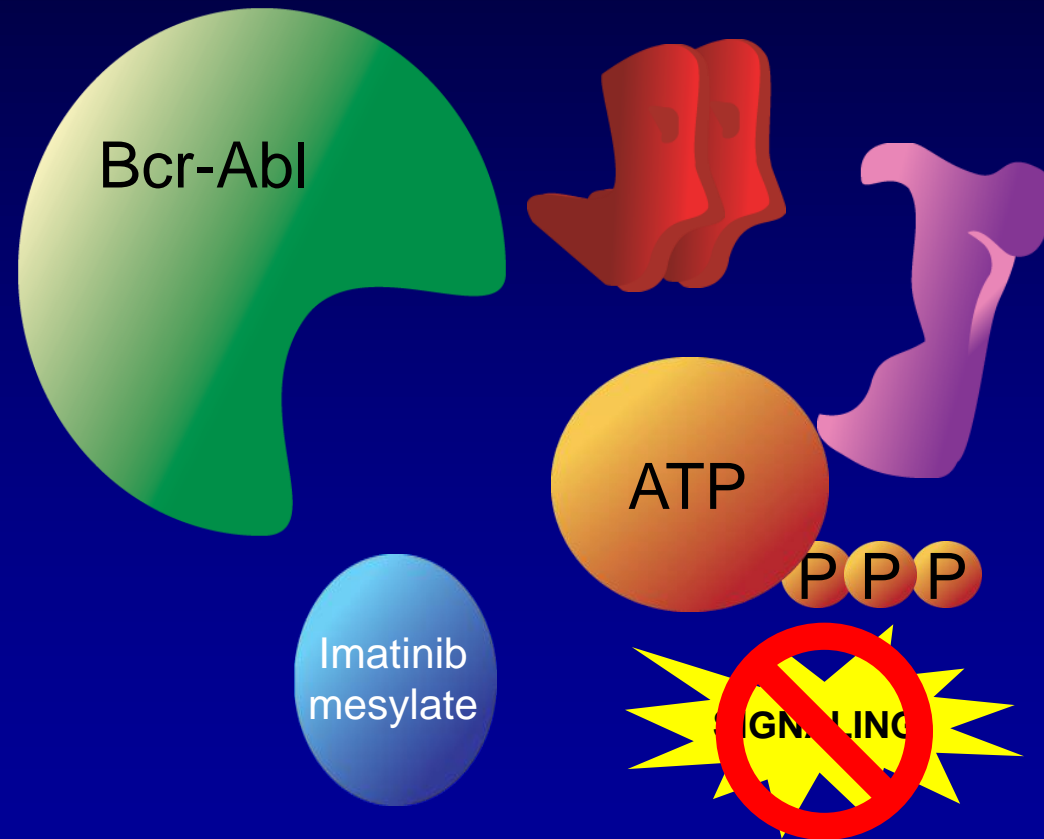


Imatinib Mesylate: Mechanism of Action

Imatinib mesylate occupies the ATP binding pocket of the Abl kinase domain

This prevents substrate phosphorylation and signaling

A lack of signaling inhibits proliferation and survival

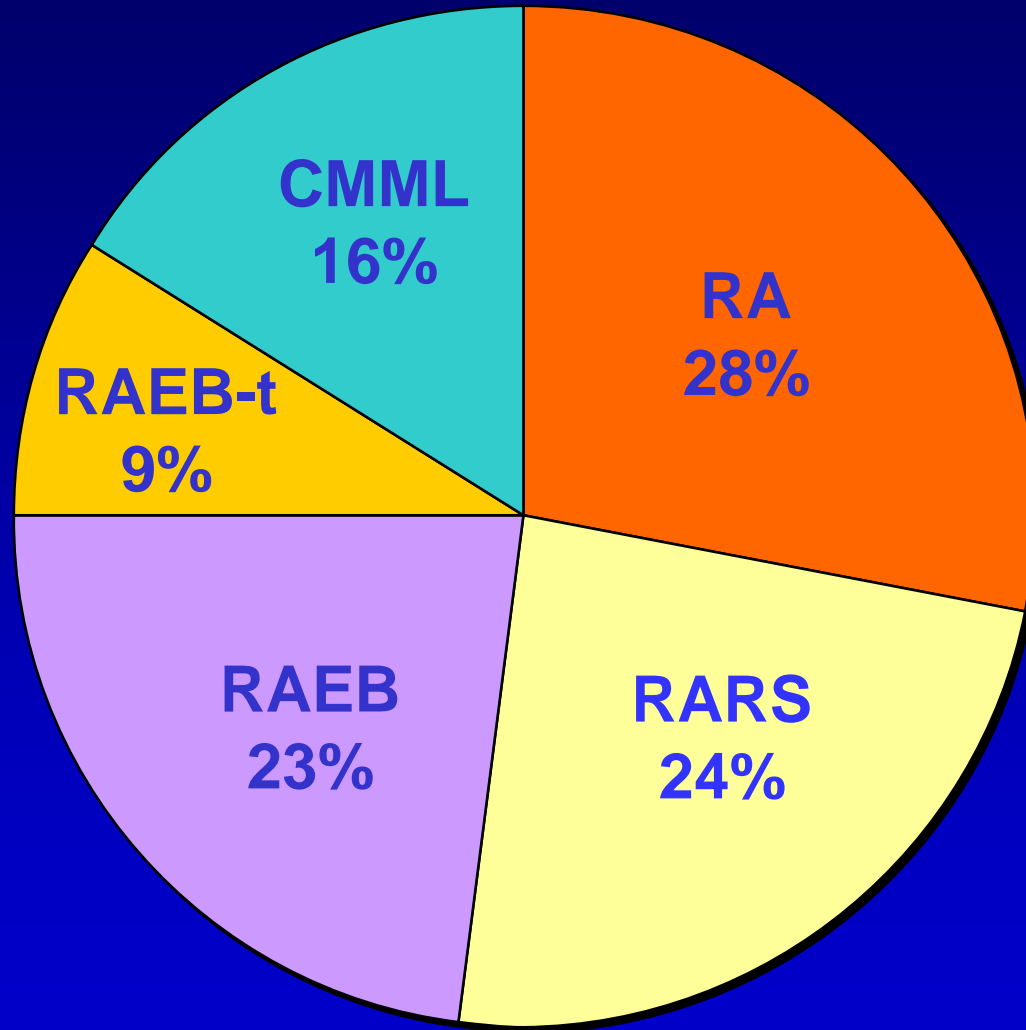


Myelodysplastic Syndrome (MDS)

Myelodysplastic Syndromes

- A group of malignant blood disorders sharing an ineffective production of one or more cell lines with a variable % of leukemic blasts
- Median age is 70
- 25 - 35% progress to AML

FAB Categories: Patient Distribution



MDS: Treatment

Supportive Care:

Blood and platelet transfusion

FDA-Approved Drugs:

5-azacitidine

Decitabine

Lenalidomide

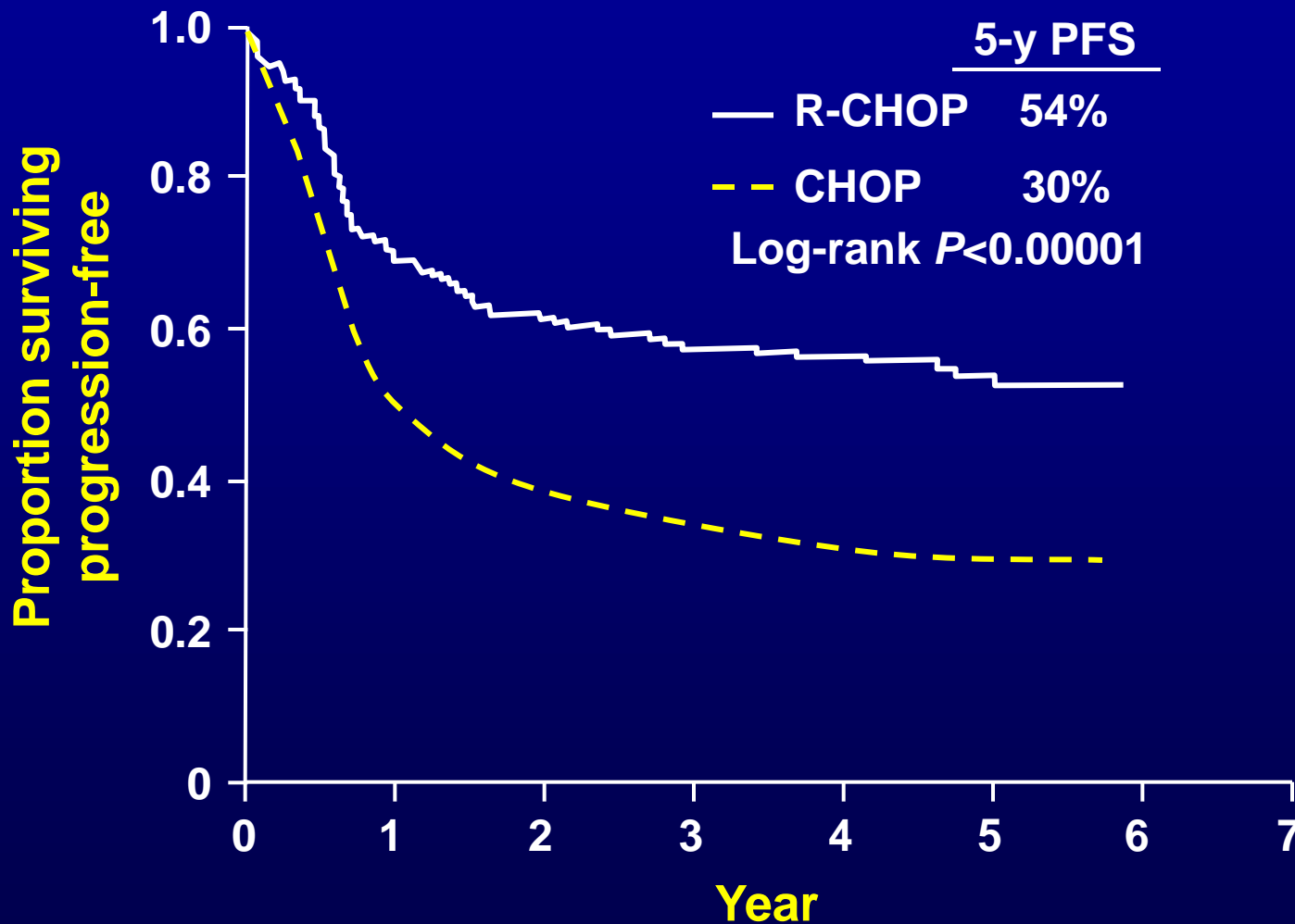
RUSH Clinical Trials:

5-azacitidine+Lenalidomide

(Jamile Shammo, MD)

Research at RUSH

5-Year PFS R-CHOP vs CHOP: GELA Study Update



A randomized, double-blind, placebo-controlled, multi-center phase III study of RAD001 adjuvant therapy in poor risk patients with Diffuse Large B-Cell Lymphoma (DLBCL) of RAD001 versus matching placebo after patients have achieved complete response with first-line rituximab-chemotherapy

**Principal Investigator:
Stephanie A. Gregory, MD**

Phase II Trial of Non-Myeloablative Allogeneic Hematopoietic Cell Transplantation for Patients with Relapsed Follicular Non-Hodgkin's Lymphoma Beyond First Complete Response

BLOOD AND MARROW
TRANSPLANT
CLINICAL TRIALS NETWORK

- ¹ Stanford University Medical Center
- ² The EMMES Corporation
- ³ National Heart, Lung, and Blood Institute
- ⁴ City of Hope National Medical Center
- ⁵ University of Texas/MD Anderson Cancer Center
- ⁶ University Hospitals of Cleveland/ Case Western

- ⁷ Center for International Blood and Marrow Transplant Research (CIBMTR), Medical College of Wisconsin
- ⁸ National Cancer Institute
- ⁹ H. Lee Moffitt Cancer Center
- ¹⁰ University of North Carolina/ Chapel Hill

Principal Investigator:
Sunita Nathan, MD

**A Phase III Randomized, Multicenter Trial
Testing Whether Exercise or Stress Management Improves
Functional Status and Symptoms of Autologous and Allogeneic
Recipients**

**Principal Investigator:
John Maciejewski, MD, PhD.**

Comprehensive Cancer Clinic

Kathleen Ellis, MMS, PA-C



- Approximate Square Footage: 49,000
- Exam Rooms: 41
- Consult Rooms: 13
- Infusion Stations: 56
- Procedure Rooms: 3
- Triage Area
- Integrated Medicine
- Palliative Care/Chronic Pain Management
- Laboratory
- Pharmacy
- Clinical Research Unit
- Urgent Care Unit

Sharon Manson, RN, ACNP



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