Welcome to the 2019 Patient & Family Conference
Albuquerque, New Mexico
March 30, 2019
Welcome

George Atweh, MD
Chief of Hematology/Oncology
UNM Comprehensive Cancer Center
Albuquerque, New Mexico
Welcome to the Patient and Family Conference on Bone Marrow Failure Diseases

Albuquerque, New Mexico
March 30, 2019
UNM Comprehensive Cancer Center

- Official Cancer Center of the State of New Mexico
- Awarded the National Cancer Institute’s Comprehensive Cancer Center designation
- One of only 49 cancer centers in the country to hold this designation.
- The only National Cancer Institute-designated Cancer Center in a 500-mile radius
We Serve the People of New Mexico

- **Full services** for cancer diagnosis, treatment and survivorship
- 125 board-certified **oncology physicians** in every specialty
- More than 175 **clinical trials** offered through a statewide network
- 130 **cancer research** scientists working on the cancers that affect New Mexicans the most
- **Training** the next generation of cancer healthcare professionals
Introduction to Bone Marrow Failure Disease

Ronald Paquette, MD
Director, Cedars-Sinai Blood and Marrow Transplant Program
Cedars-Sinai Medical Center
Los Angeles, California
Understanding Blood Cell Formation - “hematopoiesis

Blood stem cell

“Multipotential”

Myeloid stem cell

Myeloblast

Red blood cells

Platelets

Lymphoid stem cell

Lymphoblast

White blood cells

(Neutrophils most common)
Bone marrow failure syndromes

AA, aplastic anemia; AID, autoimmune disease; AML, acute myelogenous leukemia; DKC, dyskeratosis congenita; IBD, inflammatory bowel disease; LGL, large granular lymphocyte leukemia; GATA2, Gata2 deficiency; FA, Fanconi anemia; SDS, Shwachman–Diamond syndrome; MDS, myelodysplastic syndrome; MS, multiple sclerosis; DM, diabetes mellitus; PNH, paroxysmal nocturnal hemoglobinuria

Bone Marrow Failure: Overlapping Diseases

- Aplastic Anemia (AA) (acquired)
- Paroxysmal Nocturnal Hemoglobinuria (PNH)
- Inherited Bone Marrow Failure syndromes (IBMFS)
- Myelodysplastic syndrome (MDS)
  - Hypoplastic MDS (hMDS)
- Pure Red Cell Aplasia (PRCA)
- Myeloproliferative Neoplasms (MPN) – myelofibrosis
- Acute Myeloid Leukemia (AML)
- Chronic Myelomonocytic Leukemia (CMML) + JMML

Adapted from Shimamura A Blood Rev. 2010 May;24(3):101-22
Bone Marrow Failure: Overlapping Diseases

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- Large Granular lymphocyte leukemia (LGL)
- Pure Red Cell Aplasia
- Myeloproliferative Neoplasms (MPN) – Primarily myelofibrosis
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- Chronic Myelomonocytic Leukemia (CMML) + JMML

Adapted from Shimamura A Blood Rev. 2010 May;24(3):101-22
MDS overlap disorders and diagnostic boundaries
by Tiffany N. Tanaka, M.D.
and Rafael Bejar, M.D.
Division of Hematology and Oncology, Moores Cancer Center, University of California, San Diego, La Jolla, CA
Blood Journal (www.bloodjournal.org), January 2019

Figure 1. Diagram depicting myeloid disorders with clinical and genetic features shared with MDS and the degree to which they are driven by proliferative and immunologic mechanisms.
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Support is also provided by individual donors including patients, families, caregivers and health care professionals as well as through local fundraising events like March for Marrow!