MDS Clinical Trials at Einstein and Montefiore

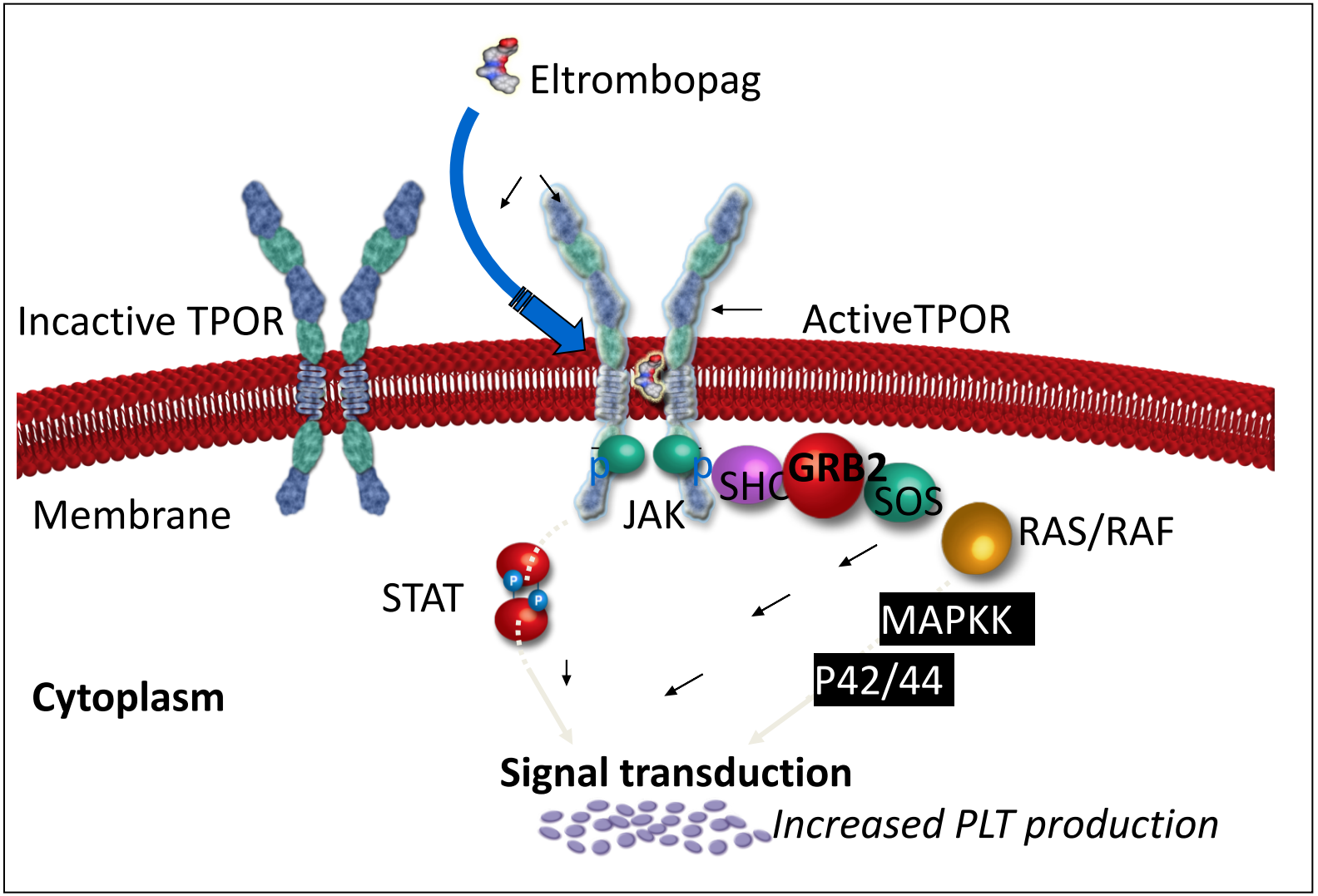
www.mdstreatment.com

LEUKEMIA & LYMPHOMA SOCIETY®
fighting blood cancers

mds foundation
the myelodysplastic syndromes foundation, inc.
MDS - A bone marrow failure disorder
CENTER OF EXCELLENCE

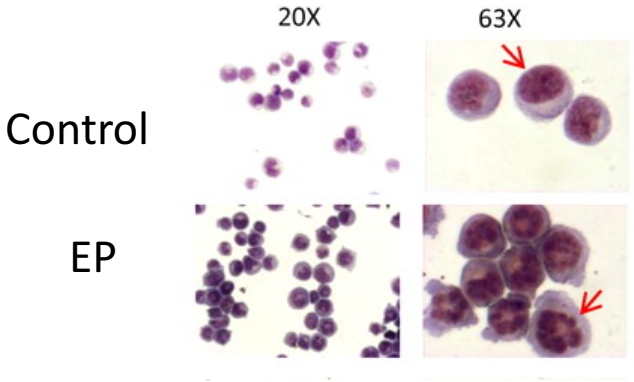
Low Platelets are a problem in MDS

Eltrombopag can stimulate platelet production in MDS and AML



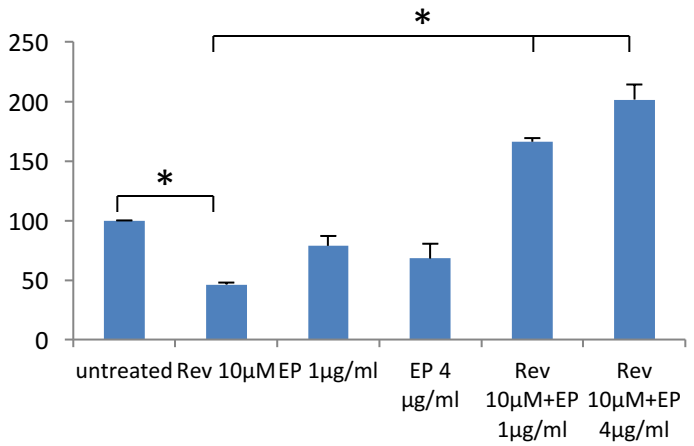
Eltrombopag in MDS and AML

Eltrombopag can have anti-leukemic activity: Can induce differentiation



Roth et al, Blood 2013

Eltrombopag can reverse Revlimid induced thrombocytopenia



Tamari et al, Leuk Lymp 2014

PHASE II STUDY OF LENALIDOMIDE AND ELTROMBOPAG IN PATIENTS WITH SYMPTOMATIC ANEMIA IN LOW OR INTERMEDIATE I MYELODYSPLASTIC SYNDROME (MDS)

Results

27 patients accrued so far

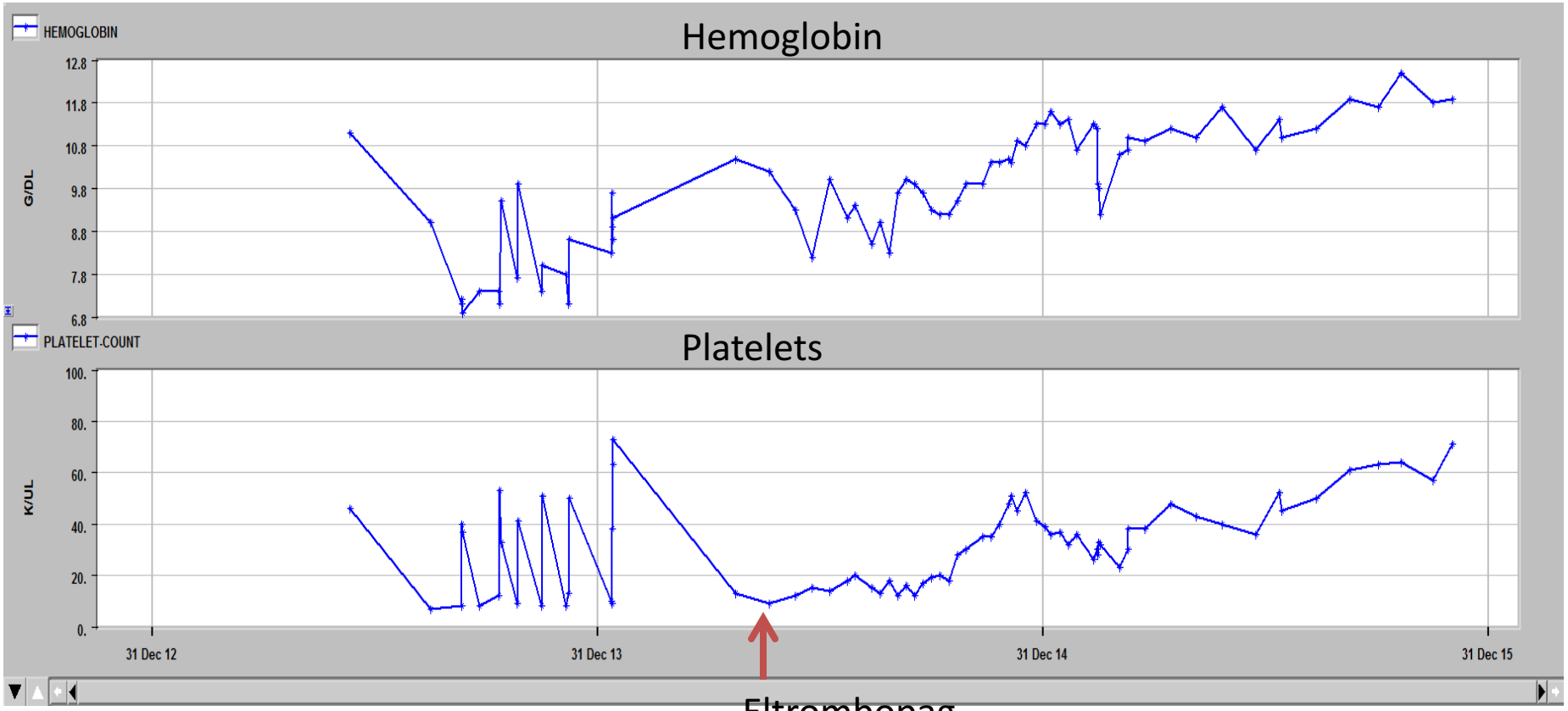
15 Patients evaluable

Response Rate: 8/15 (55%)

6 patients achieved Red cell transfusion independence

2 Patients achieved Platelet transfusion independance

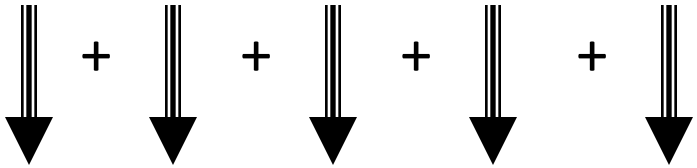
Response to Eltrombopag



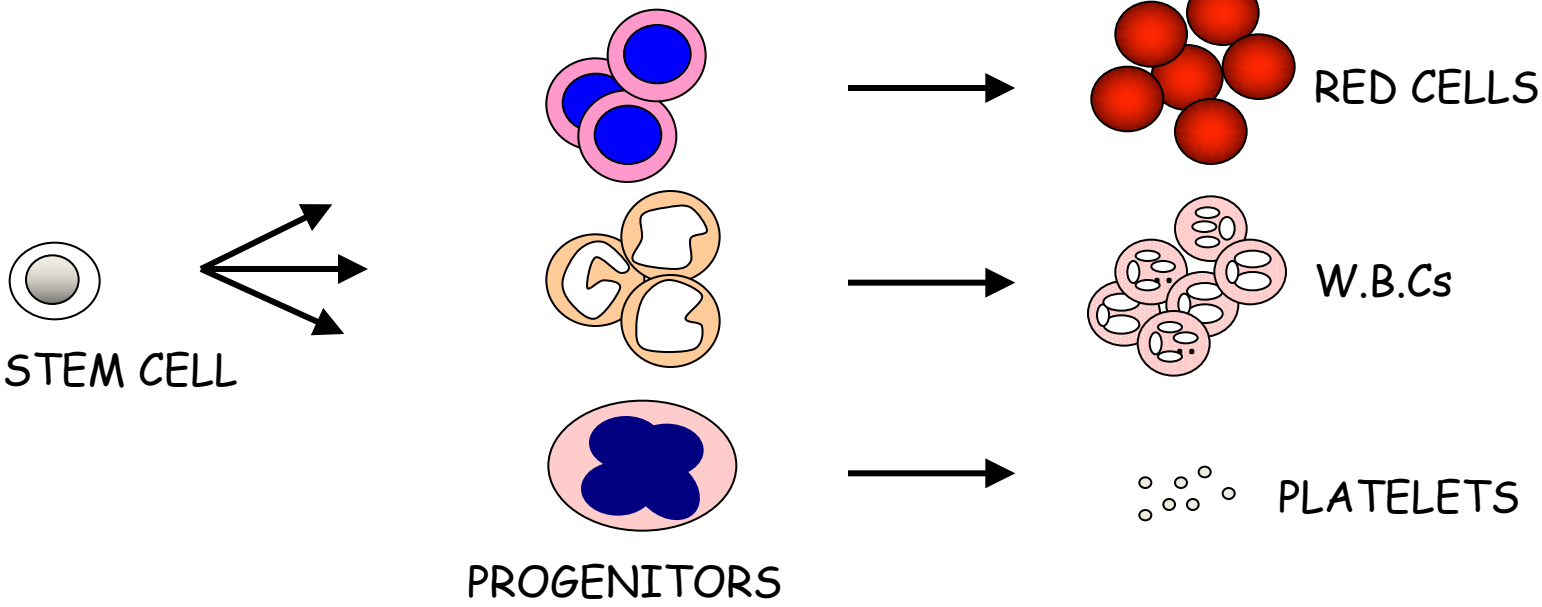
MDS patient with ASXL1 mutation

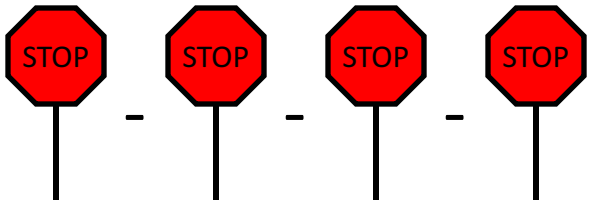
STIMULATORY GROWTH FACTORS

Erythropoietin (EPO), GCSF, GMCSF, TPO, IL-3, SCF



HEMATOPOIESIS





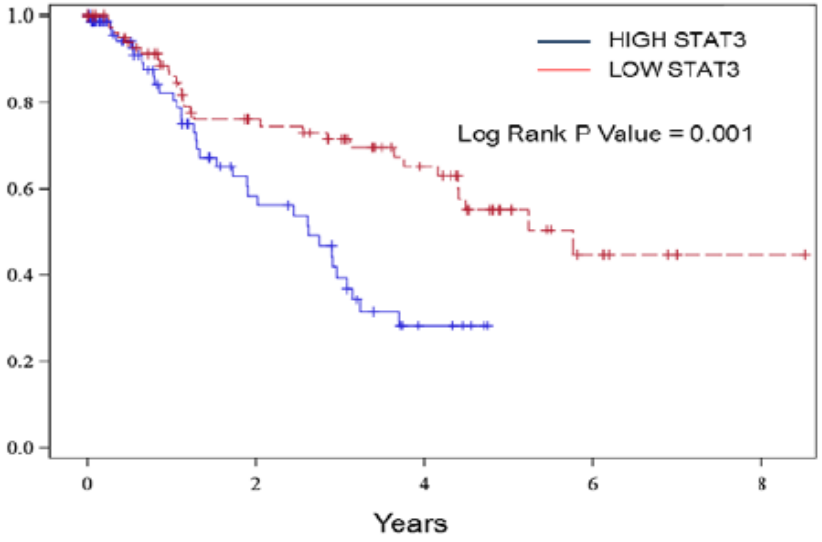
INHIBITORY CYTOKINES

TGF-beta

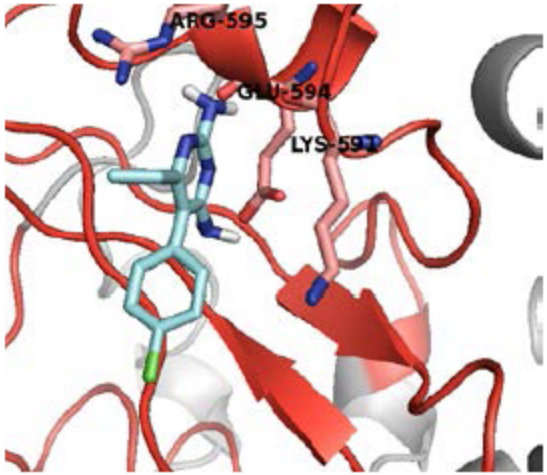
Phase II trial of TGF inhibitor in MDS

STAT3 INHIBITION IN MDS

STAT3 is overexpressed in MDS stem cells
High STAT3 levels are predictive of adverse prognosis



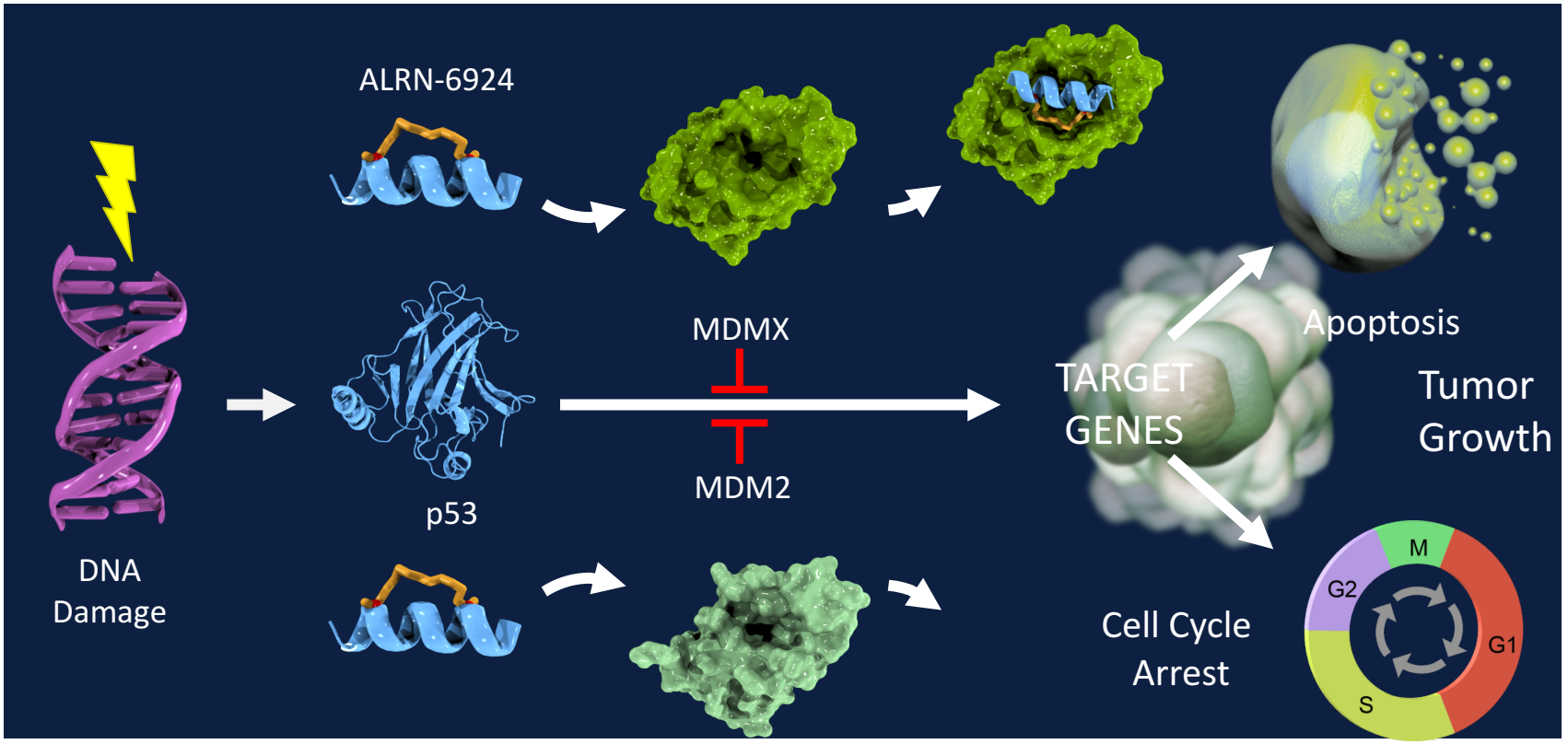
Pyrimethamine is a STAT3 inhibitor!



A Phase II Study of Pyrimethamine, a STAT3 Inhibitor, for the Treatment of Intermediate/ High-risk MDS that has Relapsed or is Refractory to Azanucleosides

Trials for patients that have failed azacytidine

ALRN-6924: First Dual Inhibitor of MDM2 & MDMX
Activates p53 and kills tumor cells



Phase II trial of ALRN 6924 in patients with MDS and AML

Trials for patients that have failed azacytidine

Phase II trial of LSD1 inhibitor and Retinoic acid in MDS and AML

Causes leukemic blast cells to die
Open at Cornell and Montefiore

Combination of Aza with PD1 antibody

Stimulates the immune system to attack the cancer cells

Questions?