

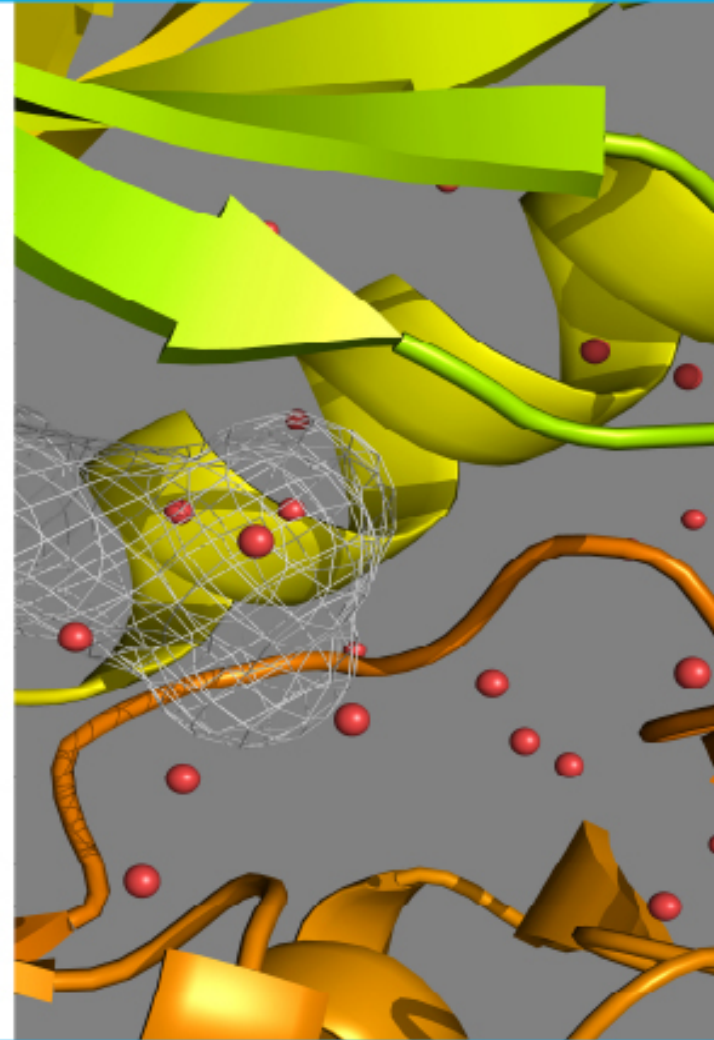


THE DRIVE TO DISCOVER.
THE EXPERIENCE TO DELIVER.

Review of Phase I/II Study of INCB18424 in Patients with Myelofibrosis

INCYTE

June 2, 2008



Safe Harbor Statement

Except for the historical information set forth herein, the matters set forth in this presentation, including without limitation statements regarding our plans and expectations with respect to advancing our JAK inhibitor drug candidates through clinical trials and the potential efficacy and therapeutic and commercial value of our JAK inhibitor drug candidates, contain predictions, estimates and other forward-looking statements.

These forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially, including the high degree of risk associated with drug development and clinical trials, the uncertainty of the FDA approval process, results of further research and development, the risk that results of clinical trials may be unsuccessful or insufficient to meet applicable regulatory standards, the ability to enroll sufficient numbers of subjects in Incyte's clinical trials, the impact of competition and technological advances, unanticipated delays, the ability of Incyte to compete against parties with greater financial or other resources, greater than expected expenses, economic factors, and other risks detailed from time to time in Incyte's reports filed with the Securities and Exchange Commission, including our Form 10-Q for the quarter ended March 31, 2008 and our filings with the SEC.

Incyte disclaims any intent or obligation to update these forward-looking statements.

Agenda

Welcome / Introductions

Pam Murphy, Vice President, Corporate Communications/IR

Richard Levy, M.D. , Senior Vice President, Development

Presentation

Srdan Verstovsek, M.D., Ph.D.

Associate Professor Leukemia Department, Myeloproliferative Disorders Program Leader, University of Texas M.D. Anderson Cancer Center

Principal Investigator INCB18424 Study 251

**A phase I/II study of INCB018424, an oral,
selective JAK inhibitor, in patients with
primary myelofibrosis (PMF) and post
polycythemia vera/essential
thrombocythemia myelofibrosis
(Post-PV/ET MF)**

**Srdan Verstovsek, MD, PhD,¹ Hagop Kantarjian, MD,¹ Animesh Pardanani,
MD, PhD,² Deborah Thomas, MD,¹ Jorge Cortes, MD,¹ Ruben Mesa, MD,²
William Hogan, MD,² John Redman, MD,³ Richard Levy MD,³ Jordan
Fridman, PhD,³ Kris Vaddi, PhD,³ and Ayalew Tefferi, MD²**

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Disclosure

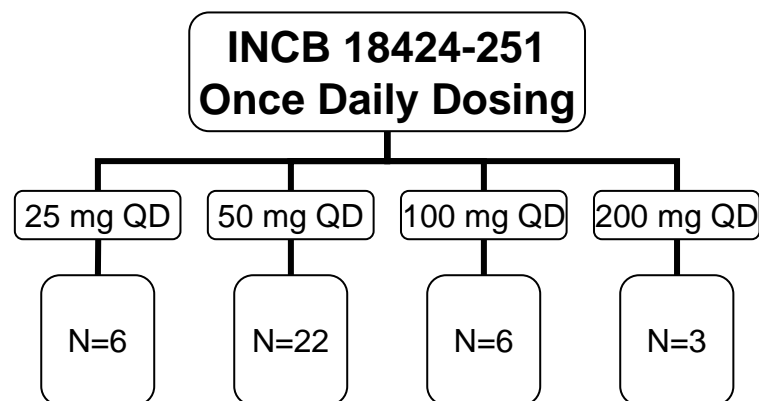
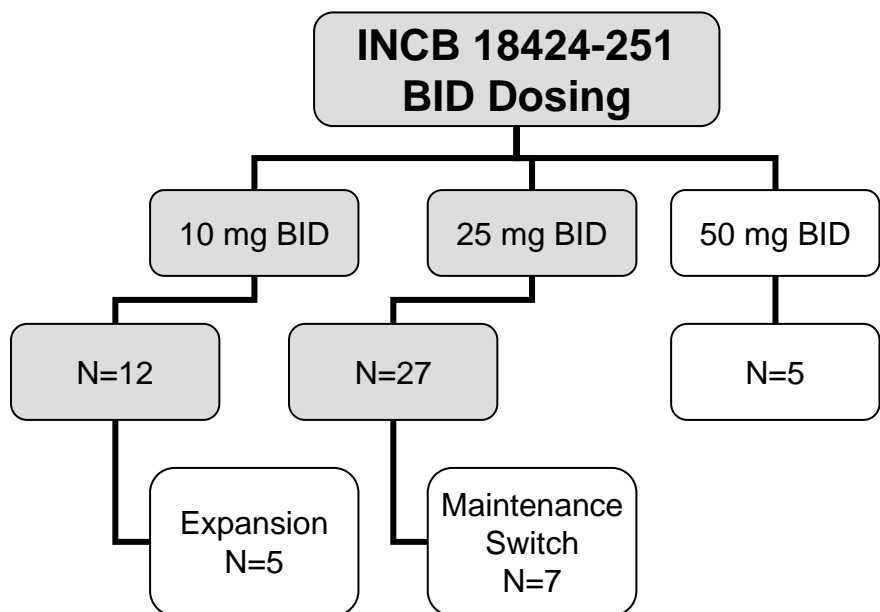
Author	Disclosure
Srdan Verstovsek	Advisor - Incyte Corporation
Hagop Kantarjian	Advisor - Incyte Corporation
Animesh Pardanani	Advisor – Incyte Corporation
Deborah Thomas	None
Jorge Cortes	None
Ruben Mesa	Advisor – Incyte Corporation
William Hogan	None
John Redman	Employee – Incyte Corporation
Richard Levy	Employee – Incyte Corporation
Jordan Fridman	Employee – Incyte Corporation
Kris Vaddi	Employee – Incyte Corporation
Ayalew Tefferi	Advisor – Incyte Corporation

INCB018424 Background

- **INCB018424 is a potent and selective inhibitor of JAK1 and JAK2**
 - >80-fold selectivity against JAK3 and non-JAK family kinases
 - Preclinical toxicology findings restricted to myelosuppression and reduced lymphoid organ cellularity at high doses
- **Phase I dose escalation study (ASH 2007)**
 - Identified the starting dose of 25 mg BID as a highly effective dose in reducing splenomegaly and constitutional symptoms
 - Identified 25 mg BID as MTD, with reversible thrombocytopenia as the dose-limiting toxicity

Study INCB 18424-251: Current Enrollment Status

93 patients enrolled as of May 31, 2008

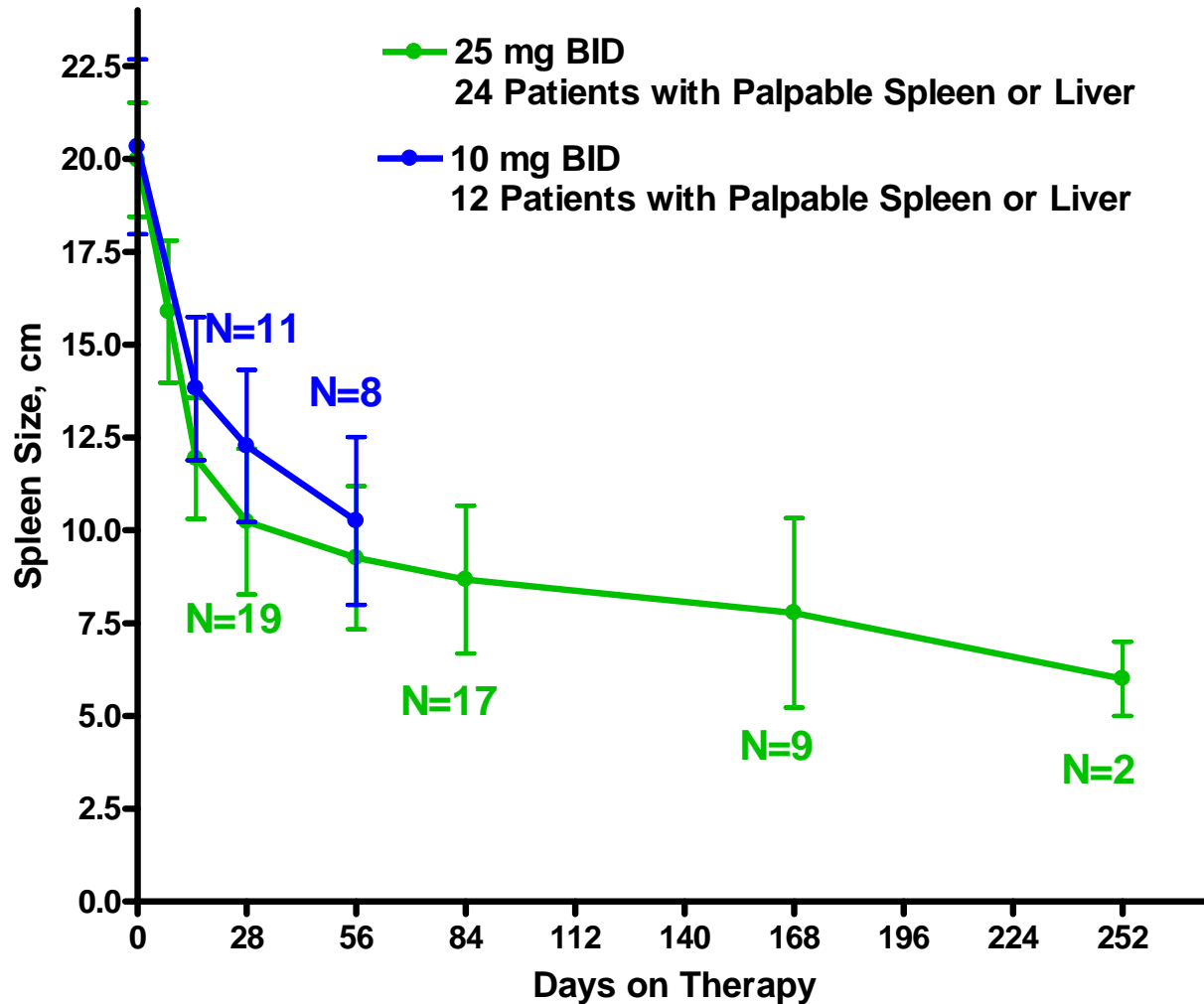


Current presentation will focus on patients on 10 and 25 mg BID regimens with up to 9 months follow up

Patient Baseline Characteristics

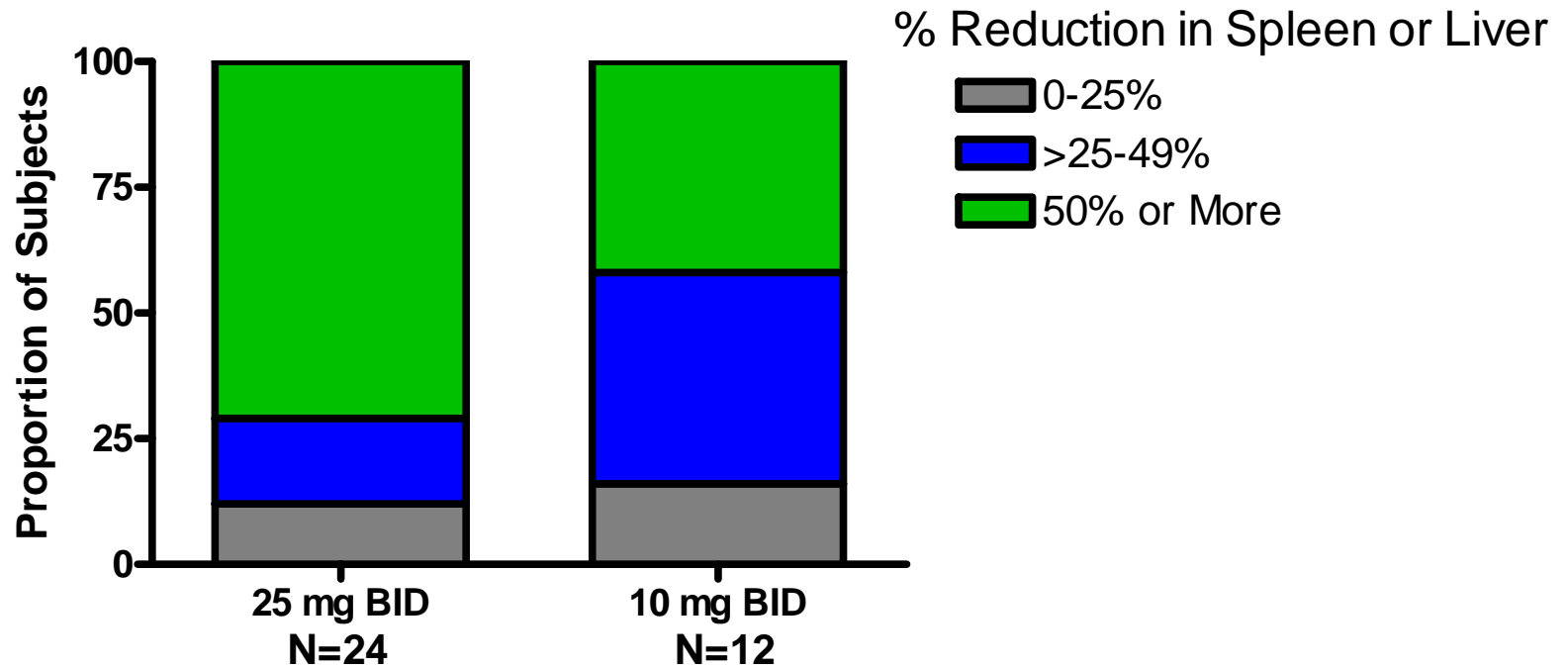
Parameter	25 mg BID	10 mg BID
N	27	12
Median Age (range)	64 (40-80)	63 (50-77)
Male/Female	19/8	5/7
PMF	12 (44.5%)	6 (50.0%)
Post-PVMF	10 (37.0%)	4 (33.3%)
Post-ETMF	5 (18.5%)	2 (16.7%)
Median Time on Drug	190 days	85 days
% With JAK2 Mutation	89%	100%
Baseline Spleen/Liver Size, cm Median, (N with splenomegaly/hepatomegaly)	20.0 (N=24)	21.0 (N=12)
Baseline Platelet Count, K/ μ L (mean \pm SEM)	303 \pm 37	321 \pm 61
% Transfusion Dependent	48%	46%

INCB18424 Results in Rapid and Profound Reduction in Spleen Size

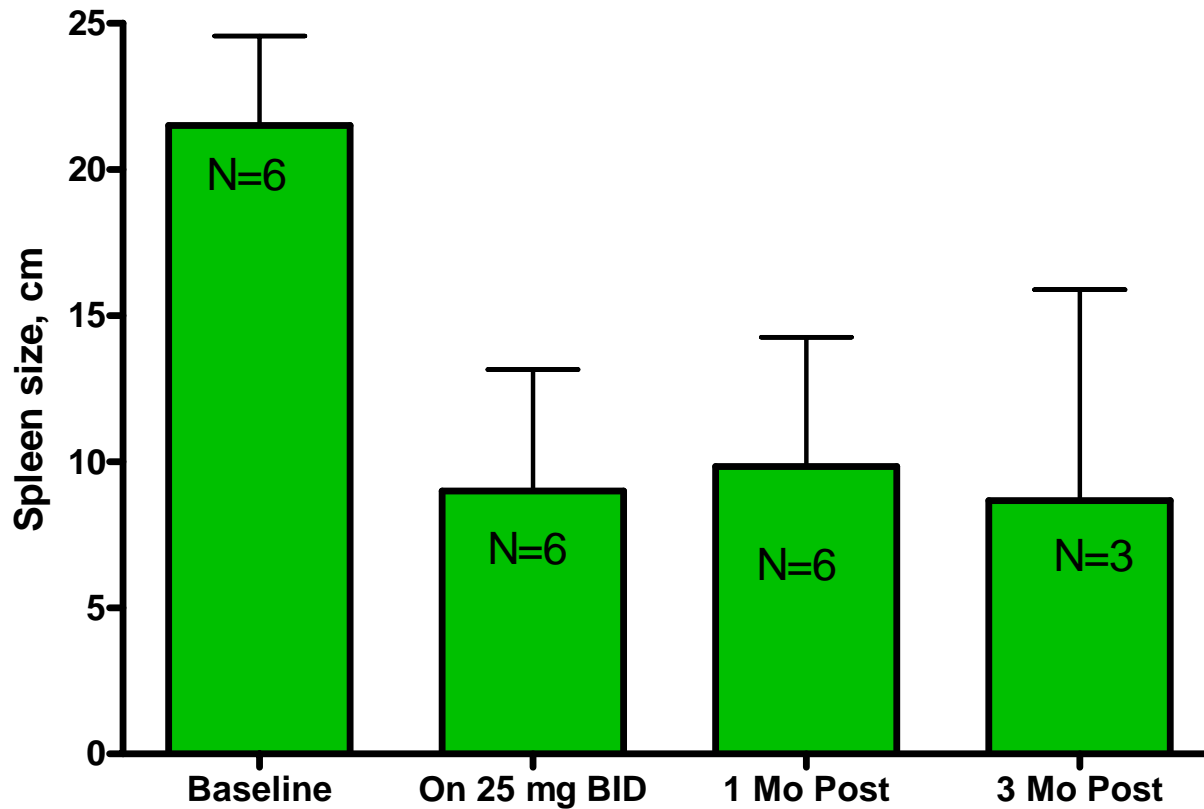


NOTE: Data is censored after a dose change or dose interruption

Responder Analysis - Spleen or Liver Size

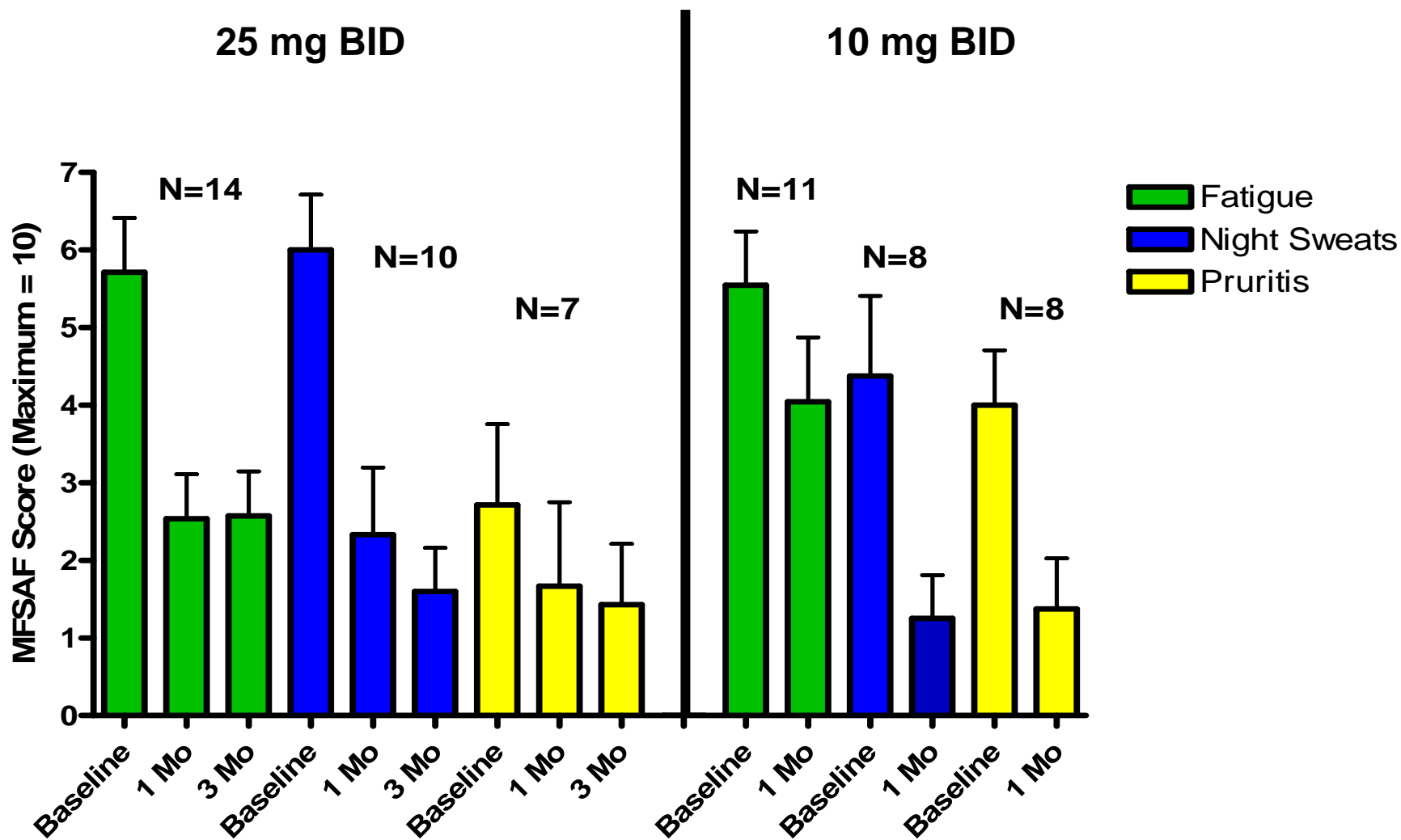


Effect of Dose Reductions on Maintenance of Spleen Size Reduction



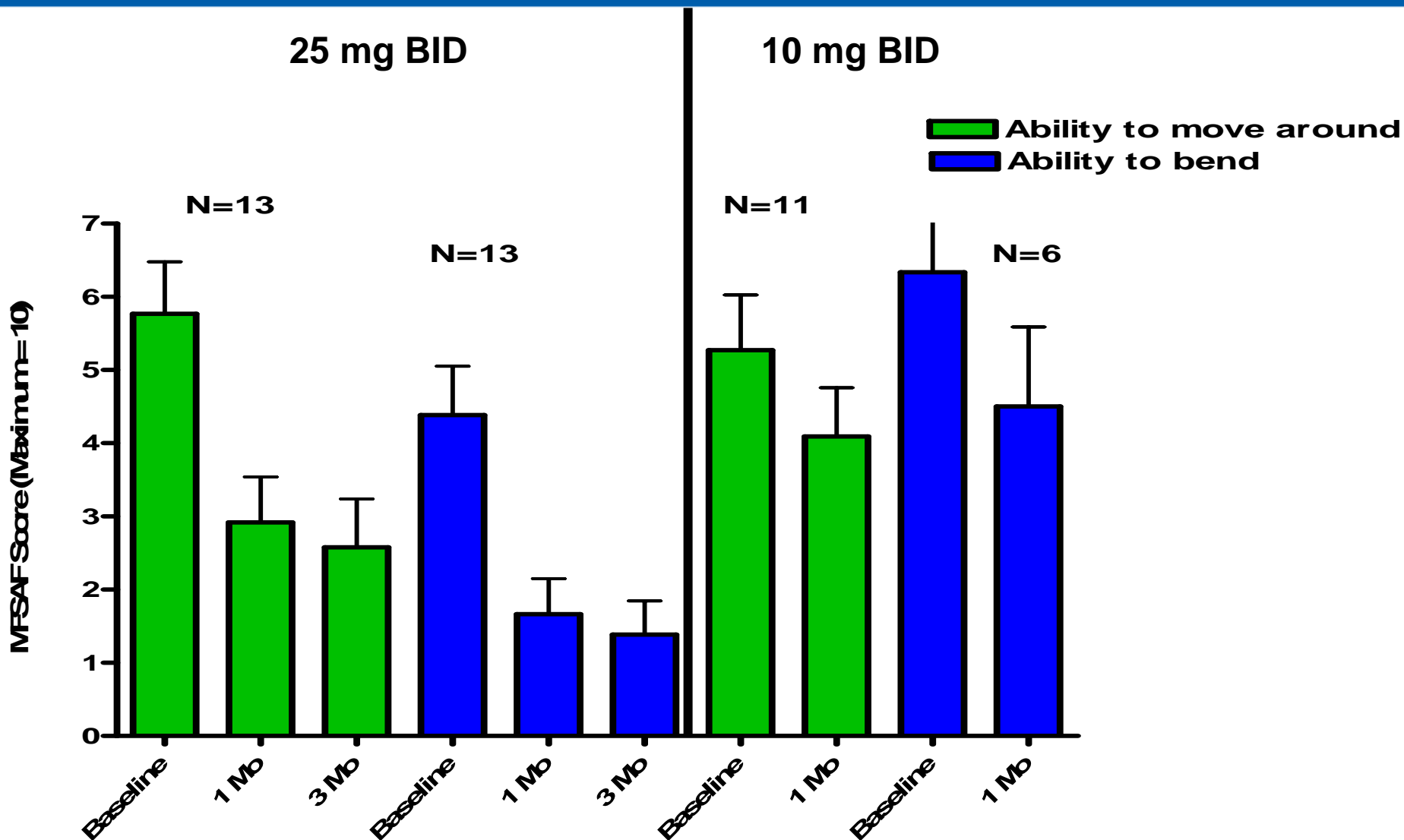
Mean \pm SEM for N=6
Changing dose to 25 mg QD

Improvement in Constitutional Symptoms - 1



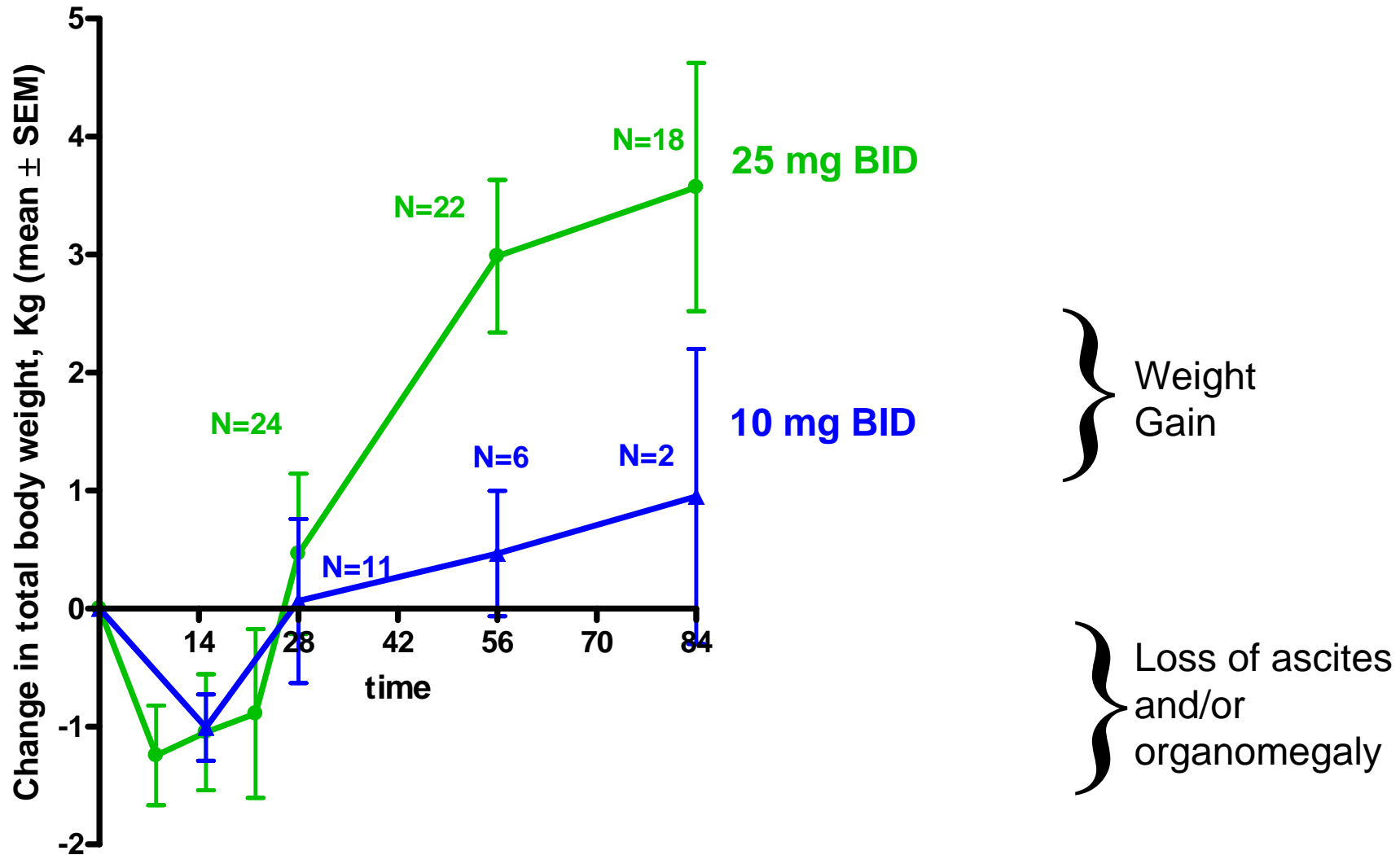
Includes only patients with assessment for all time points

Improvement in Constitutional Symptoms - 2



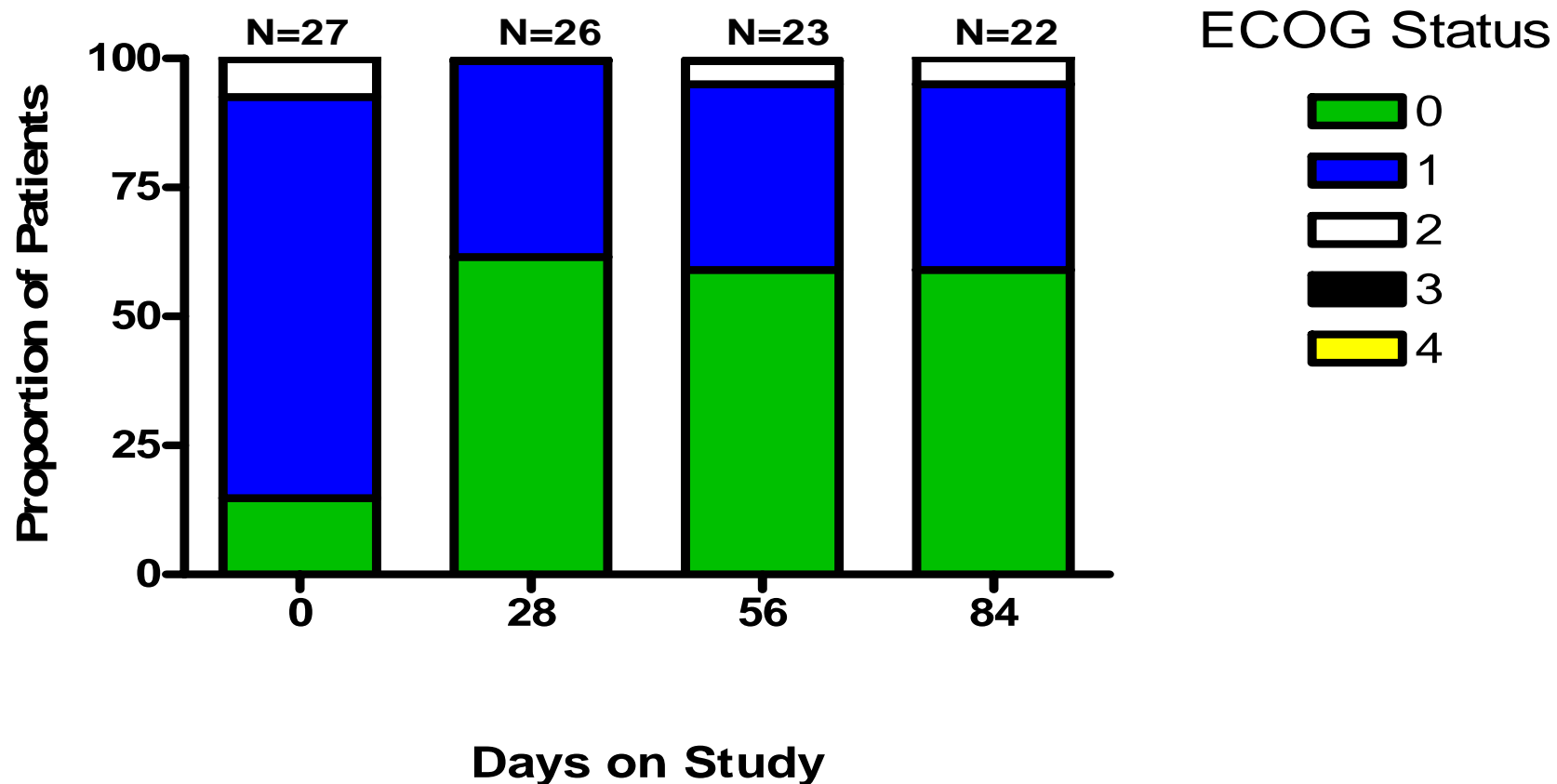
Includes only patients with assessment for all time points

Improvement in Body Weight



NOTE: Data is censored after a dose change or dose interruption

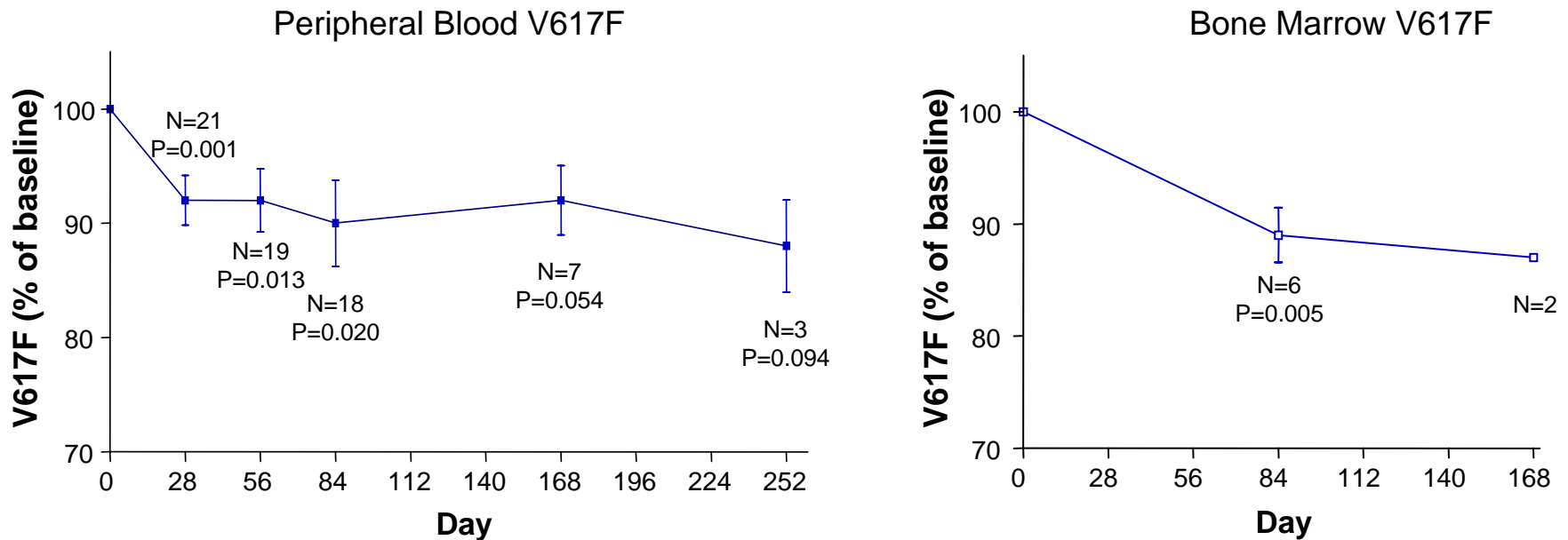
Improvement of ECOG Performance Status of Patients on INCB018424 Therapy (25 mg BID)



Note: Subjects with ECOG scores of 3 or 4 were not eligible to enroll

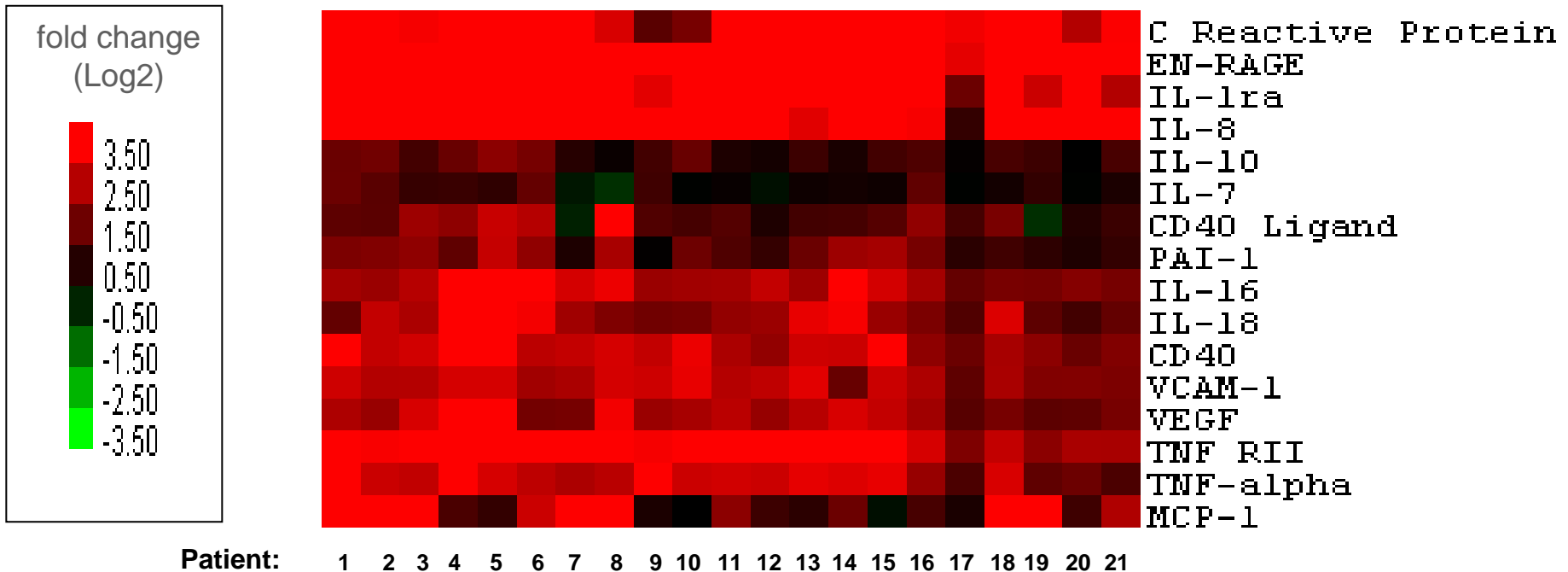
Effect of INCB018424 Treatment on the Percentage of V617F JAK2

Ratio of V617F to WT JAK2 assessed by quantitative genotypic analysis



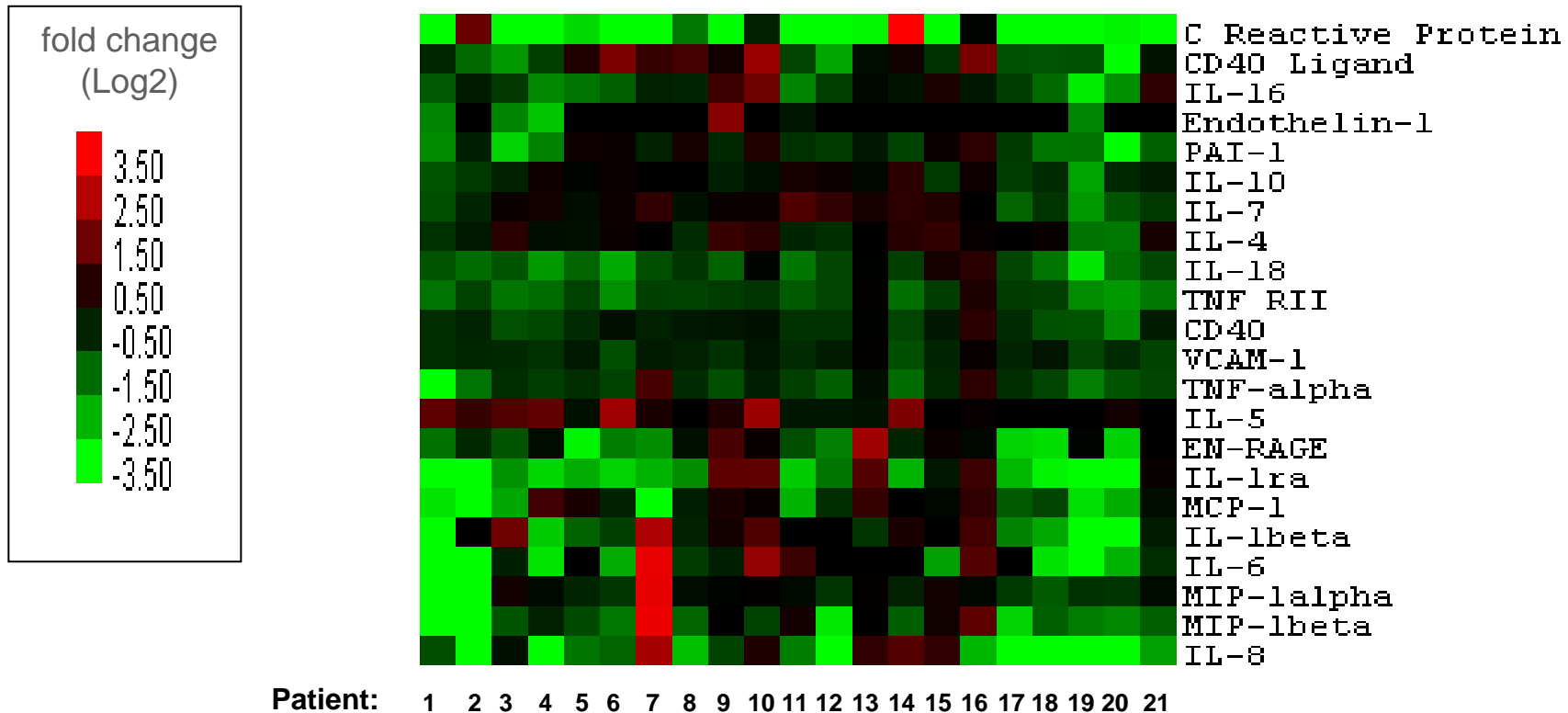
Statistically significant but minor reduction of V617F:WT JAK2 ratio was noted in both peripheral blood and bone marrow

Inflammatory Cytokines are Elevated in MF Patients



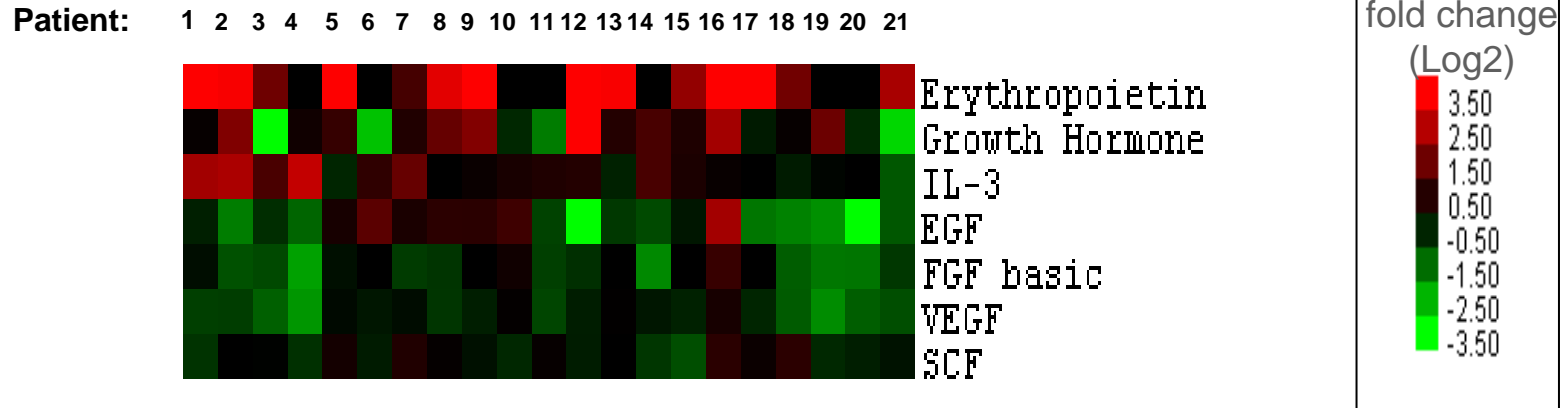
- Levels of inflammatory cytokines and markers are increased in MF patients
- Plasma from MF patients compared to plasma from healthy volunteers using unbiased proteomics analysis

INCB018424 Treatment (25 mg BID X 28 Days) Reduces Inflammatory Cytokines



- Baseline patient samples were compared to Day 28 plasma samples using unbiased proteomics approach
- INCB018424 modulated cytokine levels in a manner consistent with clinical improvement

INCB018424 Treatment (25 mg BID X 28 Days) Modulates Growth Factors



- Baseline patient samples were compared to Day 28 plasma samples using unbiased proteomics approach
- 18424 treatment resulted in
 - Increased EPO
 - Decreased VEGF, EGF and FGF
 - G-CSF and GM-CSF were below the limit of detection in most patients

INCB018424 Treatment (25 mg BID): Other Aspects of Myelofibrosis

- **Bone Marrow**
 - No significant changes in fibrosis score or cellularity
 - No significant change in blasts
- **Peripheral Blood**
 - No significant change in LDH
 - No significant change in CD34+ cells

INCB018424: Clinical Adverse Events

INCB18424 is well tolerated

Adverse events (all causalities) occurring in more than one patient (all AEs mild to moderate in severity)

MedDRA Term	25 mg BID	10 mg BID
N	27	12
Diarrhea	2	0
Edema	2	0
Dyspnea	2	0
Rash	2	0
Urinary tract infection	2	1

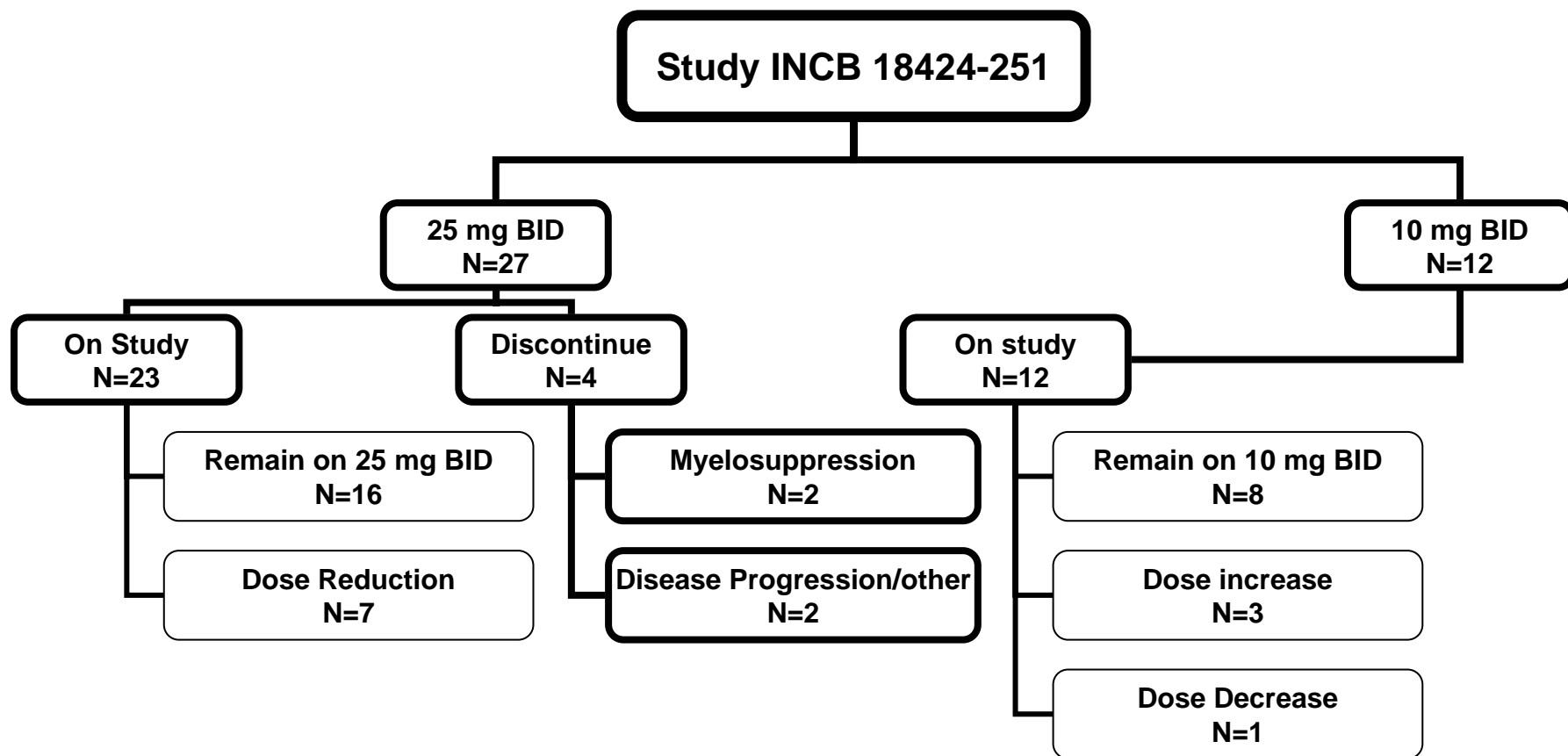
INCB01842: Hematologic Abnormalities

Parameter	25 mg BID N=27			10 mg BID N=12		
	Hgb* N=13	ANC	Platelets	Hgb* N=4	ANC	Platelets
3	2	1	6	0	0	0
4	0	0	2	1	0	0

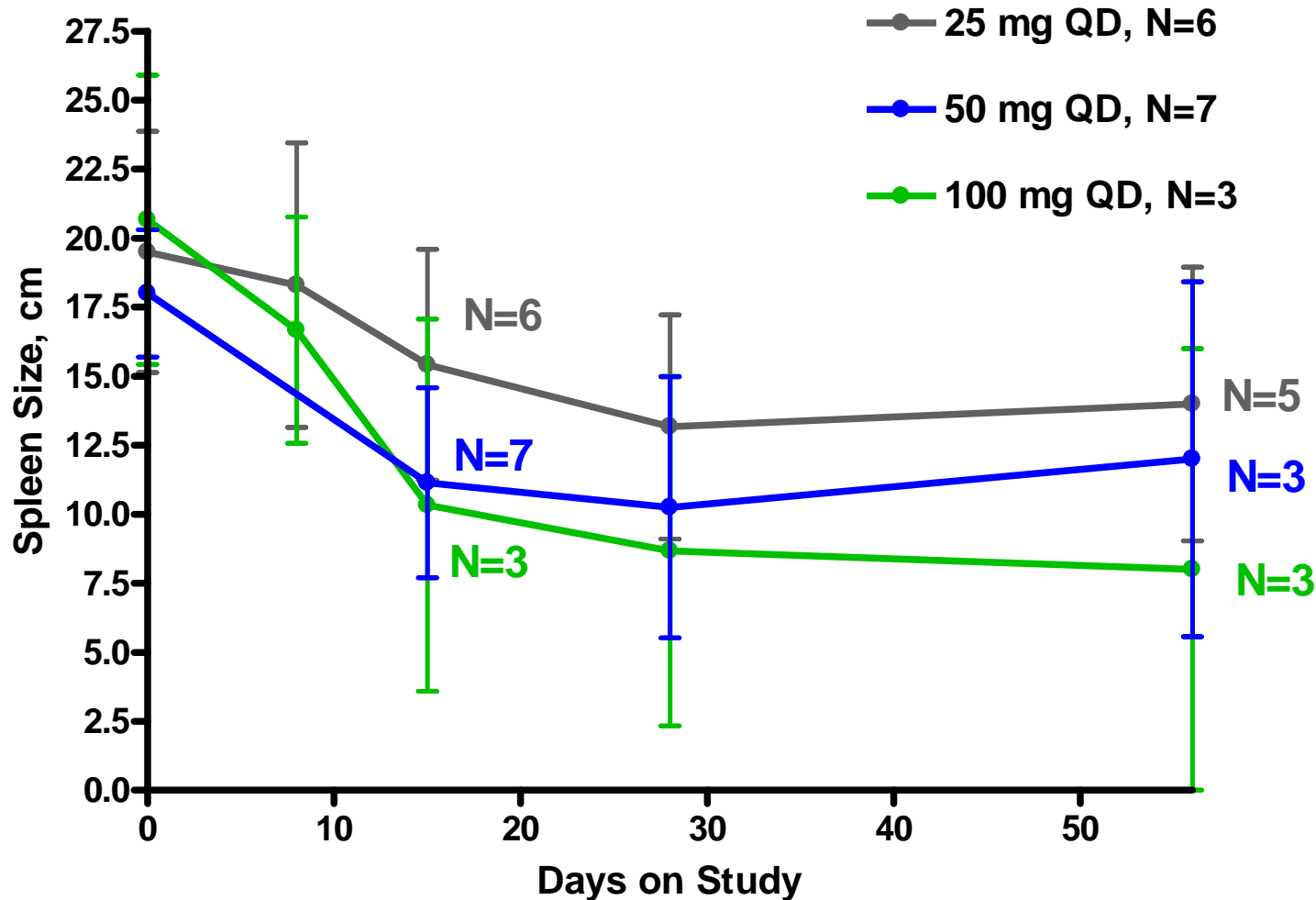
9 patients had grade 3 or 4 hematological abnormalities

*Includes only subjects who were transfusion independent at entry

Current Status of BID Cohorts: Dose Modifications and Discontinuations



Spleen Size Reduction with Once Daily Doses: Preliminary Data



Summary

INCB018424:

- Is well tolerated at clinically active doses
 - Reversible thrombocytopenia is the dose limiting toxicity
 - Manageable with dose reduction (or if necessary, dose interruption) in most patients
- Is associated with marked and durable improvement in spleen size
- Is associated with marked and durable improvement in constitutional symptoms
- Results in striking reduction in systemic cytokine levels

INCB018424-251: Ongoing Cohorts

- Assessment of QD regimens
- Individual dose titrations between 10 mg BID and 25 mg BID
- Exploration of functional and symptomatic end points of clinical efficacy