



Corporate Presentation

July 2024



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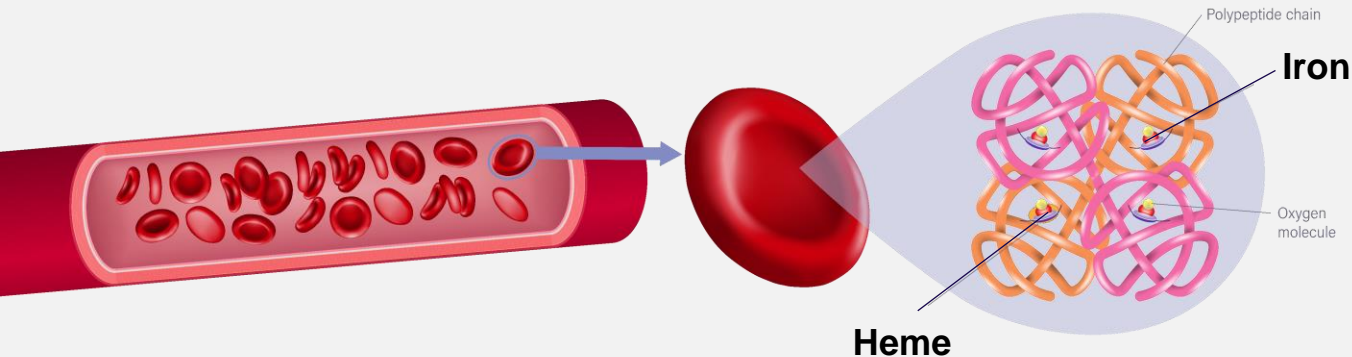
This presentation contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, including, but not limited to, express or implied statements regarding Disc’s expectations with respect to its AURORA Phase 2 and BEACON Phase 2 clinical trials of bitopertin and the results thereof, its Phase 1b/2 clinical trial of DISC-0974 in patients with MF and NDD-CKD patients with anemia, its initial SAD data in its Phase 1 clinical trial of DISC-3405 in healthy volunteers; and projected timelines for the initiation and completion of its clinical trials, anticipated timing of release of data, and other clinical activities. The use of words such as, but not limited to, “believe,” “expect,” “estimate,” “project,” “intend,” “future,” “potential,” “continue,” “may,” “might,” “plan,” “will,” “should,” “seek,” “anticipate,” or “could” or the negative of these terms and other similar words or expressions that are intended to identify forward-looking statements. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on Disc’s current beliefs, expectations and assumptions regarding the future of Disc’s business, future plans and strategies, clinical results and other future conditions. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. No representations or warranties (expressed or implied) are made about the accuracy of any such forward-looking statements.

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Bitopertin, DISC-0974, and DISC-3405 are investigational agents and are not approved for use as therapies in any jurisdiction worldwide

Targeting Fundamental Pathways of Red Blood Cell Biology using Validated Mechanisms



Iron and heme metabolism are critical pathways in hematology with genetically-validated targets

Key points of intervention across a wide range of diseases

Spectrum of Hematologic Diseases Addressable by Disc Portfolio

Severe Rare (000s)

Moderate Prevalence (100K+)

Widely Prevalent (MMs)

Diamond-Blackfan Anemia

Erythropoietic Porphyrrias

Beta-Thalassemia

Anemia of Myelofibrosis

Myelodysplastic Syndromes

Sickle Cell Disease

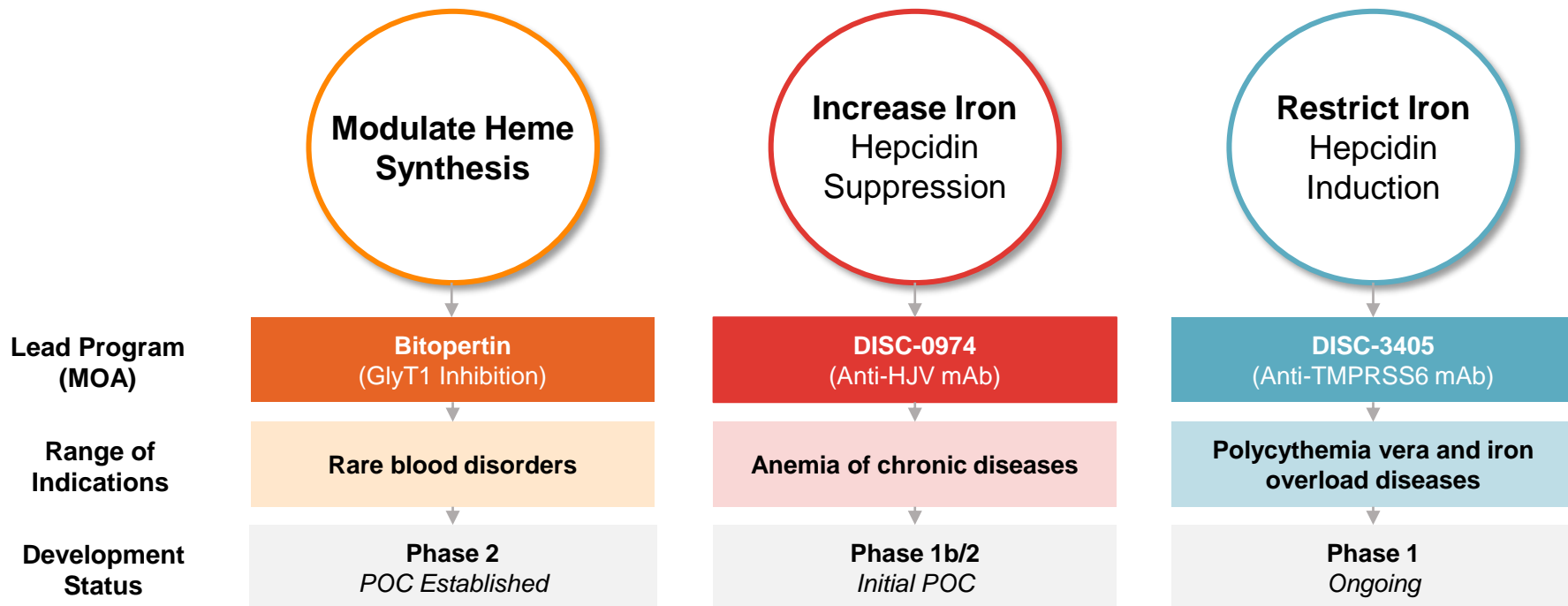
Polycythemia Vera

Hereditary Hemochromatosis

IBD Anemia

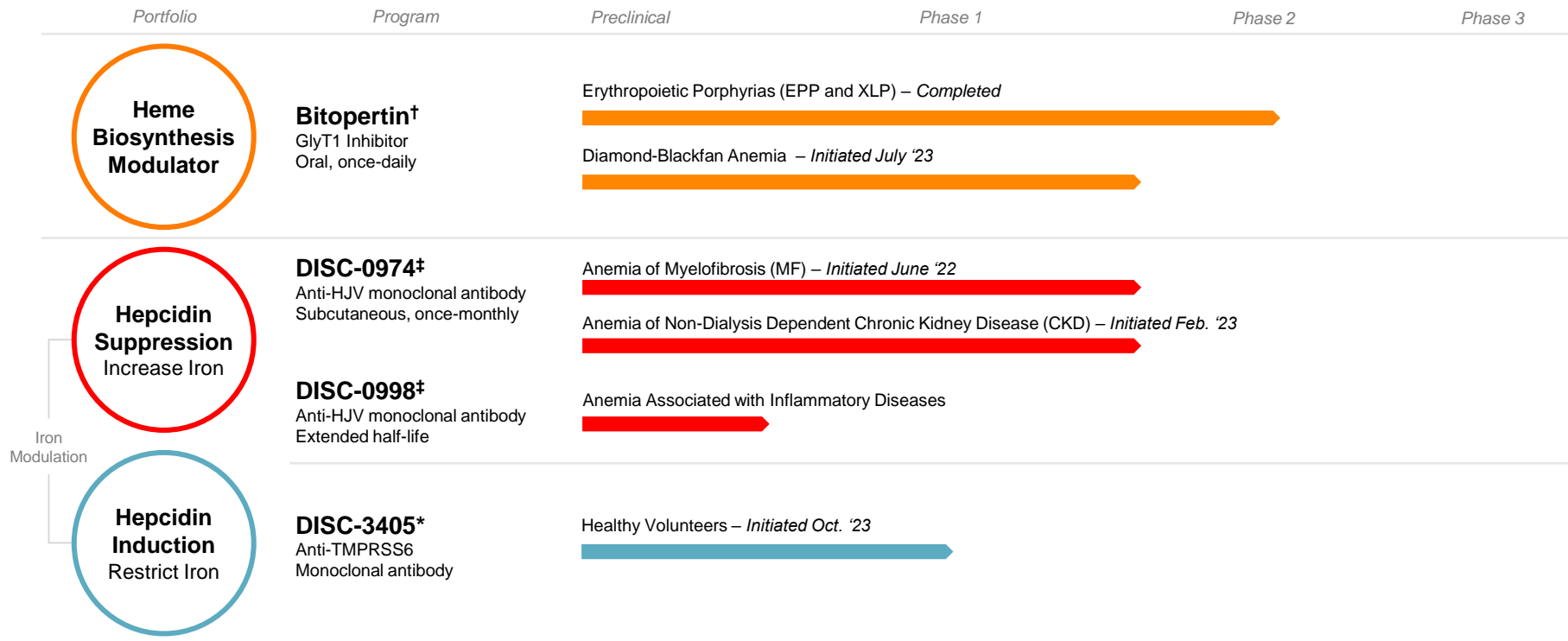
CKD Anemia

By Targeting Heme and Iron, Disc's Portfolio Can Address a Wide Range of Hematologic Disorders



Disc's Hematology-Focused Pipeline




Multiple programs in development with pipeline-in-a-product potential



†Bitopertin in-licensed from Roche; ‡ DISC-0974 and DISC-0998 in-licensed from AbbVie; *in-licensed from Mabwell; formerly MWTX-003

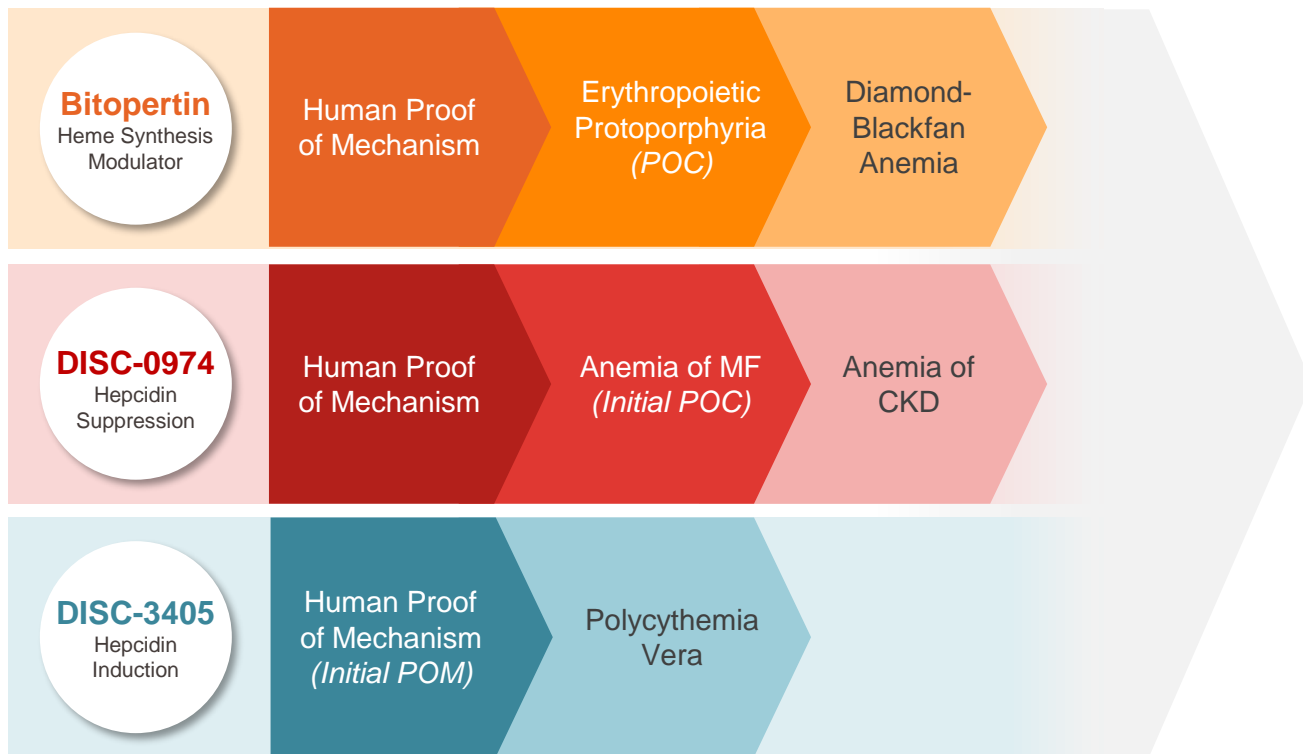
Projected Upcoming Milestones and Events

Multiple additional data catalysts anticipated in the next 18 months

Program	Indication	H1 2024	H2 2024	2025
 <p>Bitopertin Heme Synthesis Modulator</p>	Erythropoietic Porphyrias (EPP and XLP)	<ul style="list-style-type: none"> Phase 2 AURORA Data (March-April) 	<ul style="list-style-type: none"> End of Ph 2 Meeting / Other Regulatory Interaction 	<ul style="list-style-type: none"> Phase 3 Initiation Pending Regulatory Feedback
	Diamond-Blackfan Anemia (DBA)		<ul style="list-style-type: none"> Initial Phase 2 Data 	
 <p>DISC-0974 Hepcidin Suppression</p>	Anemia of Myelofibrosis (MF)	<ul style="list-style-type: none"> Updated Phase 1b Data 	<ul style="list-style-type: none"> Final Phase 1b Data Initiate Phase 2 Study 	<ul style="list-style-type: none"> Phase 2 Topline Data
	Anemia of Chronic Kidney Disease (CKD)		<ul style="list-style-type: none"> Phase 1b Data (hemoglobin) 	<ul style="list-style-type: none"> Phase 2a Topline Data
 <p>DISC-3405 Hepcidin Induction</p>	Polycythemia Vera and Diseases of Iron Overload/ Ineffective Erythropoiesis	<ul style="list-style-type: none"> Phase 1 SAD Data 	<ul style="list-style-type: none"> Phase 1 SAD/MAD Data 	<ul style="list-style-type: none"> Phase 2 in PV Initiation

Supported by a strong cash position with runway well into 2027

Disc Portfolio Provides Strong Foundation for Growth



Other Iron and Heme Disorders

Beta Thalassemia

Other Porphyrias

Myelodysplastic Syndromes

Sickle Cell Disease

Hereditary Hemochromatosis

Anemia of IBD

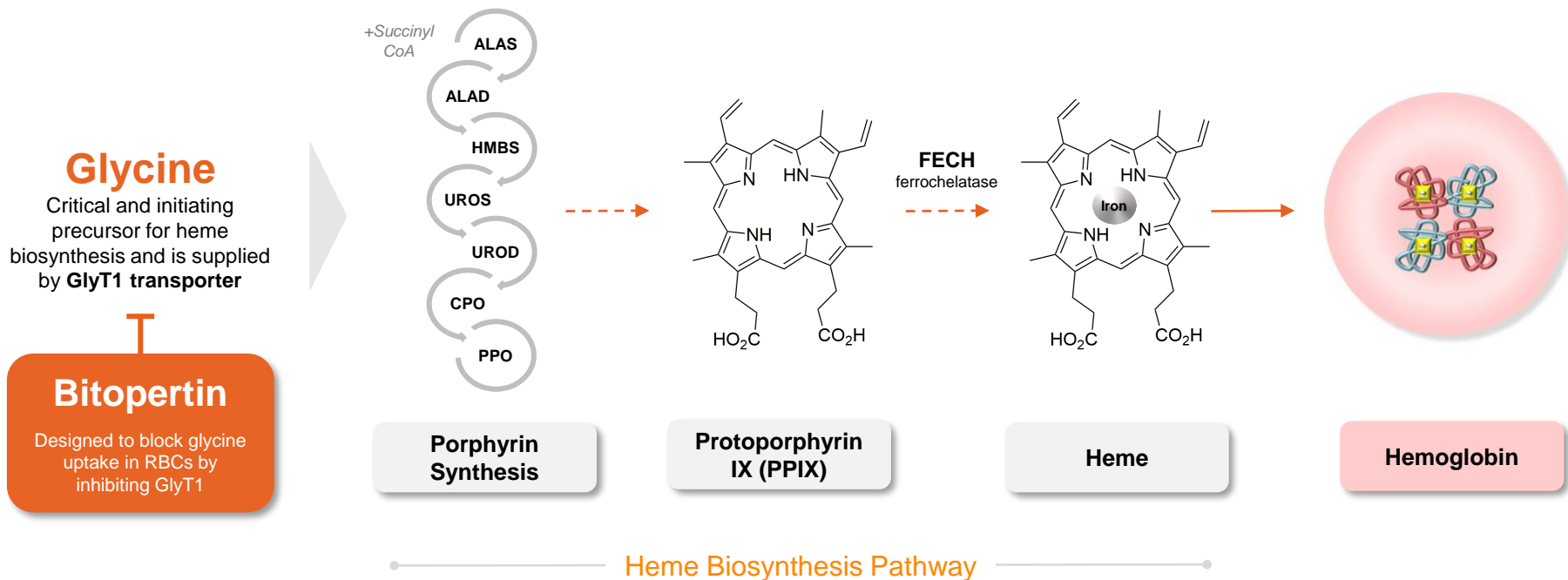
Anemia of Cancer



Bitopertin
GlyT1 Inhibitor
Heme Biosynthesis
Modulation

Bitopertin: Investigational Oral, Selective GlyT1 Inhibitor

In multiple clinical trials by Roche, bitopertin was observed to modulate heme biosynthesis by blocking uptake of glycine in erythrocytes



Erythropoietic Protoporphyrria (EPP)

Rare, debilitating and lifelong condition characterized by extreme pain and damage to skin caused by light

Genetic condition caused by defective heme biosynthesis – deficient enzyme ferrochelatase

- Lifelong and presents in early childhood
- Caused by accumulation of toxic metabolite PPIX
- XLP, mechanistically similar disease, also PPIX-related

Debilitating and potentially life-threatening

- Skin: severe, disabling pain attacks (days), edema, burning
- Hepatobiliary disease: gallstones, liver dysfunction or failure
- Psychosocial well-being (fear, anxiety) and development

No cure or disease-modifying treatment

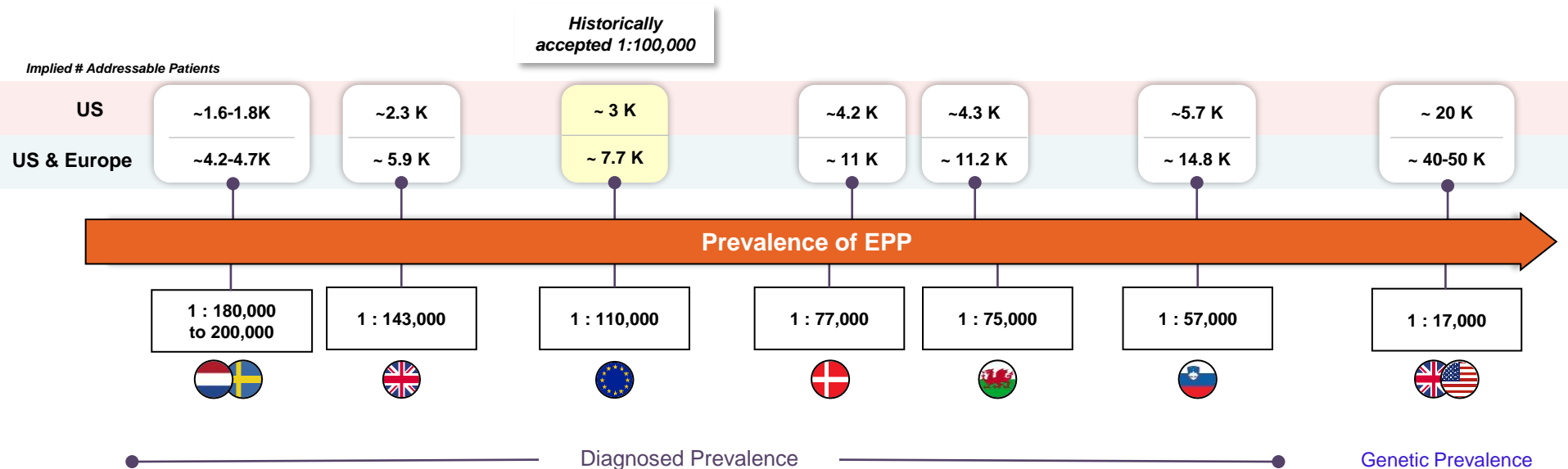
- Avoid sun / light, protective clothing, window tinting, Zn/Ti Oxide
- One FDA-approved agent, afamelanotide, a surgically-implanted tanning agent



Image sources: Daily Mail Australia (2019); FDA Scientific Workshop on EPP (2016); Buonuomo et al. (2014) Arch Dis Child

Historical EPP estimates likely underrepresent prevalence

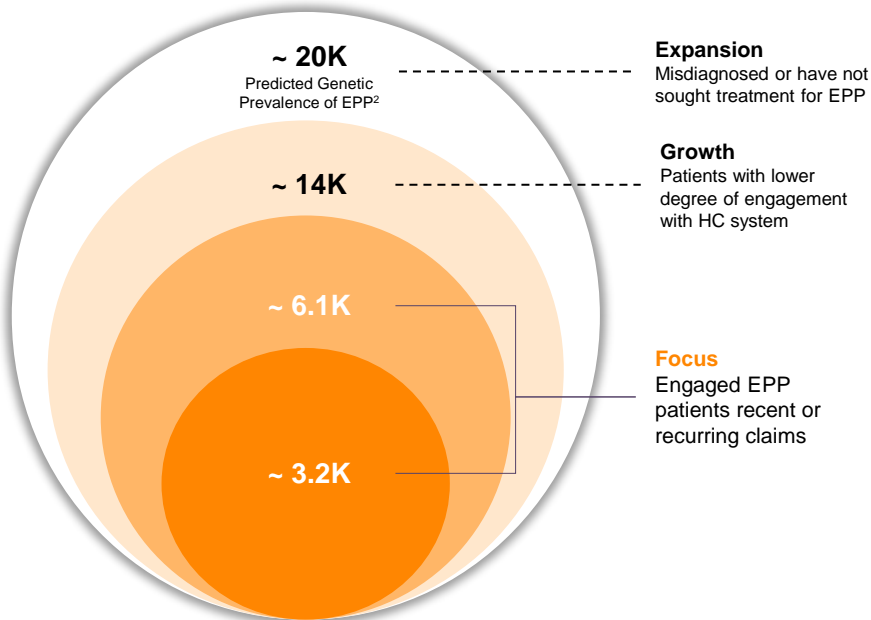
Based on methodology reported in literature and patient journey



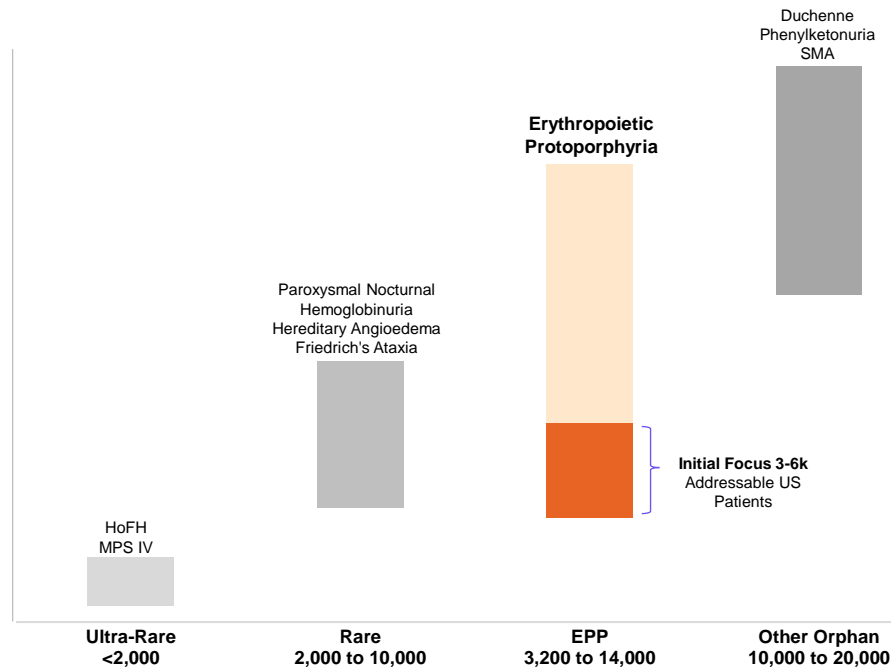
EPP Prevalence: Est. 3-6K addressable patients in the US

Based on analysis of ICD-10 codes in claims data

Prevalence of EPP Patients in the U.S.

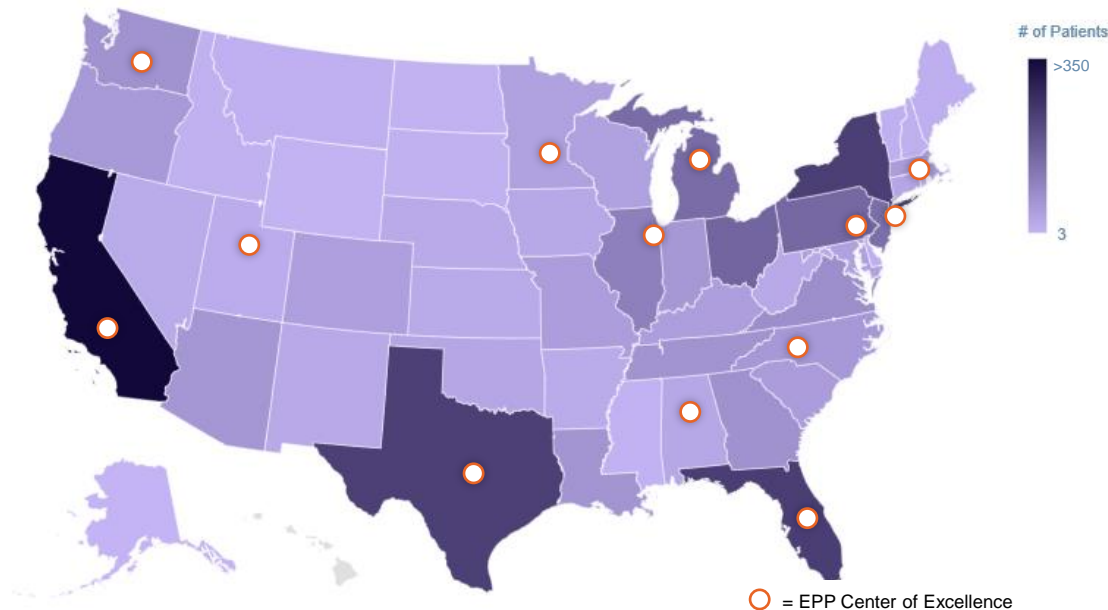


US EPP Prevalence Comparable to Major Rare Diseases



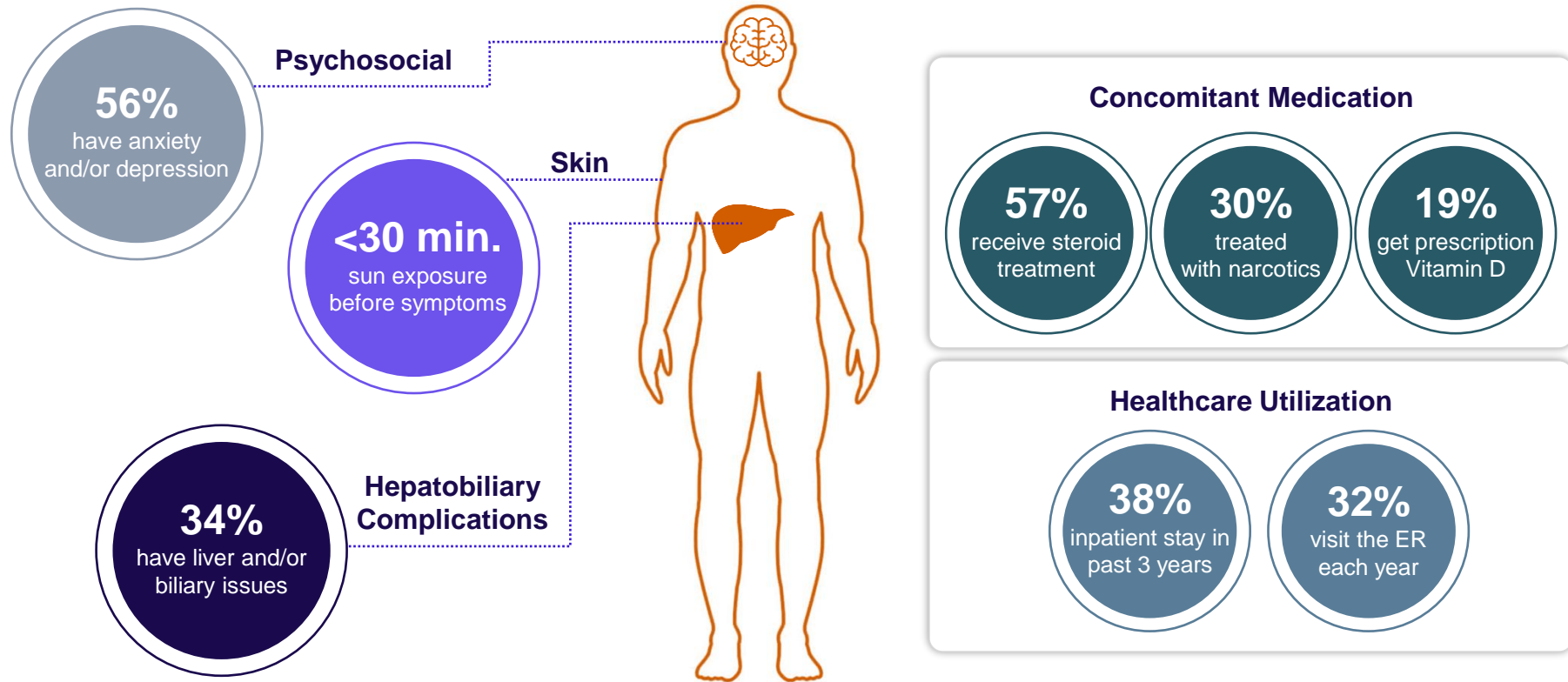
EPP patients are identifiable and can be addressed through a highly efficient operating model

Distribution of EPP Patients



Concentration of patients in key accounts enables a targeted and efficient field force

Real world data confirm EPP has a significant impact on patients' lives across multiple domains



PPIX is a Driver of Disease in EPP / XLP Patients

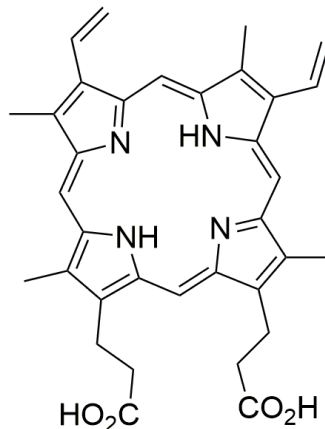
Toxic and photo-active metabolite accumulates in RBCs and is transported to skin and other organs, causing damage

Skin

- Porphyrin ring absorbs light and **emits energy and heat**
- Oxidative damage to endothelial capillaries and surrounding tissue, perivascular edema, complement activation
- Pain, burning sensation, swelling, inflammation, chronic skin lesions

Psychosocial

- Issues with focus and concentration
- Lack of sleep, physical and social isolation
- Significant lifestyle modification, fear and anxiety



Protoporphyrin IX

Hepatobiliary

- PPIX accumulation in bile canaliculae, causing oxidative damage
- Cholelithiasis requiring surgery or impaired liver function (~25%) and end-stage liver disease requiring transplant (2-5%)
- Clinical and biochemical surveillance

Other Complications

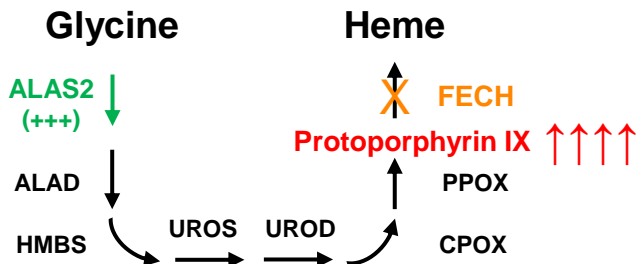
- Nutritional deficiency resulting in osteoporosis and propensity for fractures, chronic alterations to skin (e.g. fragile), mild anemia

Bitopertin: Potential Disease-Modifying Treatment

Designed to reduce disease-causing PPIX by limiting uptake of glycine into developing erythrocytes

EPP and XLP Patients

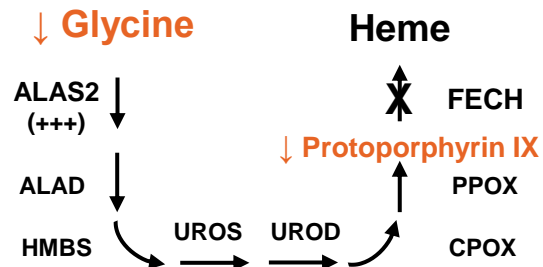
High PPIX Levels



Mutations result in reservoir of pathologically high levels of PPIX

Bitopertin Treatment

Designed to Reduce PPIX Levels



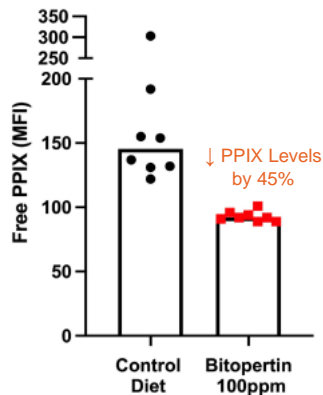
Potential first disease-modifying treatment for EPP and XLP

Bitopertin Reduced PPIX in Models of EPP / XLP

Effects on PPIX have the potential to be disease-modifying

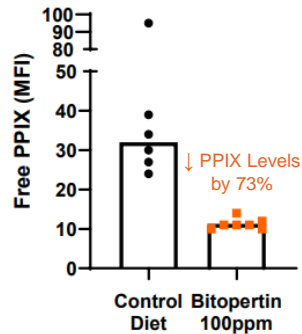
In vivo - EPP Model (Mouse)

FECH^{m1pas} Missense Mutation



In vivo - XLP Model (Mouse)

ALAS2^{Q548X} Gain-of-Function Mutation

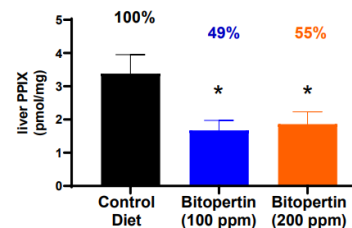


In vivo - EPP Model (Mouse)

FECH^{m1pas/m1pas} Mutation

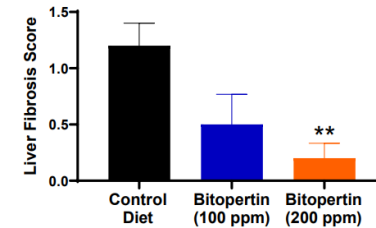
Reduced PPIX in liver

PPIX in liver at 16 weeks



Reduced liver fibrosis

Liver Fibrosis at 16 weeks

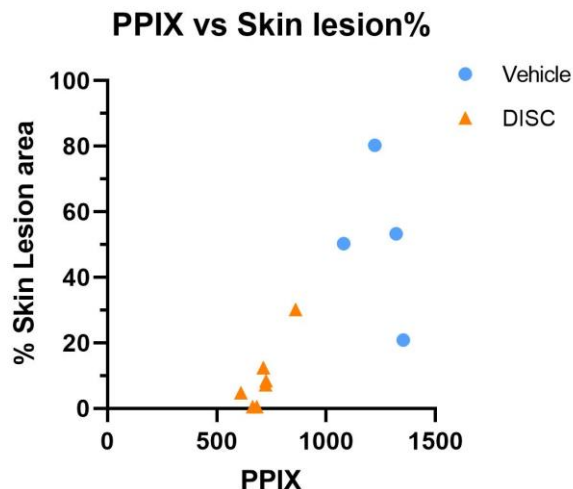
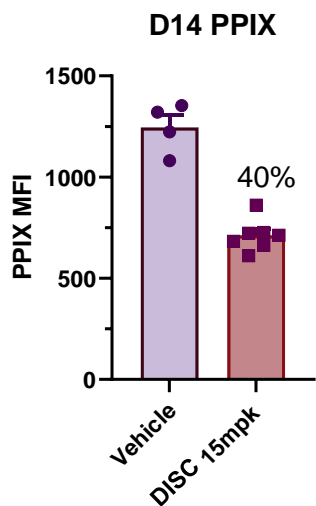


Bitopertin reduced PPIX, the driver of disease pathophysiology, and, based on the data, is expected to be disease-modifying

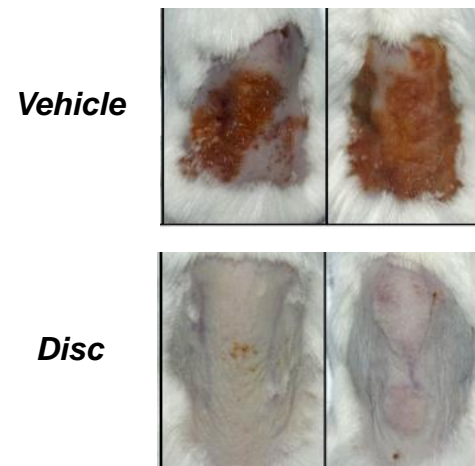
- Reductions in PPIX levels of $\geq 30\%$ reported in literature to have a major impact on photosensitivity in patients†;
- Bitopertin has been shown in an animal model of EPP (data presented at ASH 2022) to reduce liver fibrosis

PPIX in EPP: Phototoxicity in Mice

GlyT1 inhibition significantly ameliorated skin lesions after UV exposure and degree of skin lesion correlated with PPIX levels



Skin Lesions at Day 18



Bitopertin Robust Data Package

Extensive non-clinical, CMC and clinical development has already been completed

Non-Clinical

- ✓ Genetic toxicity and Safety pharmacology
- ✓ Long-term GLP toxicology
- ✓ Juvenile GLP toxicology studies supporting patients ≥ 2 y/o
- ✓ Carcinogenicity studies
- ✓ Full reproductive GLP toxicology
- ✓ Metabolites fully qualified

CMC

- ✓ Commercial-scale production
- ✓ Optimized oral formulation (tablet and capsule)
- ✓ Highly stable molecule (at least 5 years)

Clinical

- ✓ Healthy volunteer studies
- ✓ Drug-drug interaction studies
- ✓ Hepatic impairment
- ✓ Renal impairment
- ✓ TQT (heart rhythm) study
- ✓ Pharmacokinetics in patients of Asian descent
- ✓ 30+ Other clinical trials

EPP Phase 2 Development Program

BEACON and AURORA Studies



- > **EPP and XLP**; N = 26 (22 adults, 4 adolescents)
- > **Australia** (study opened July '22)
- > **Open-Label, randomized, 24-week study**



- > **EPP**; N = 75 (fully enrolled)
- > **US** (study opened October '22)
- > **Double-blind, placebo-controlled, 17-week study**

Trial endpoints: Changes in blood PPIX levels, time in daylight without pain, light tolerance, time to prodromal symptom (TTPS), QOL, safety / tolerability

Data availability: Fully enrolled; Updated data presented June 2024

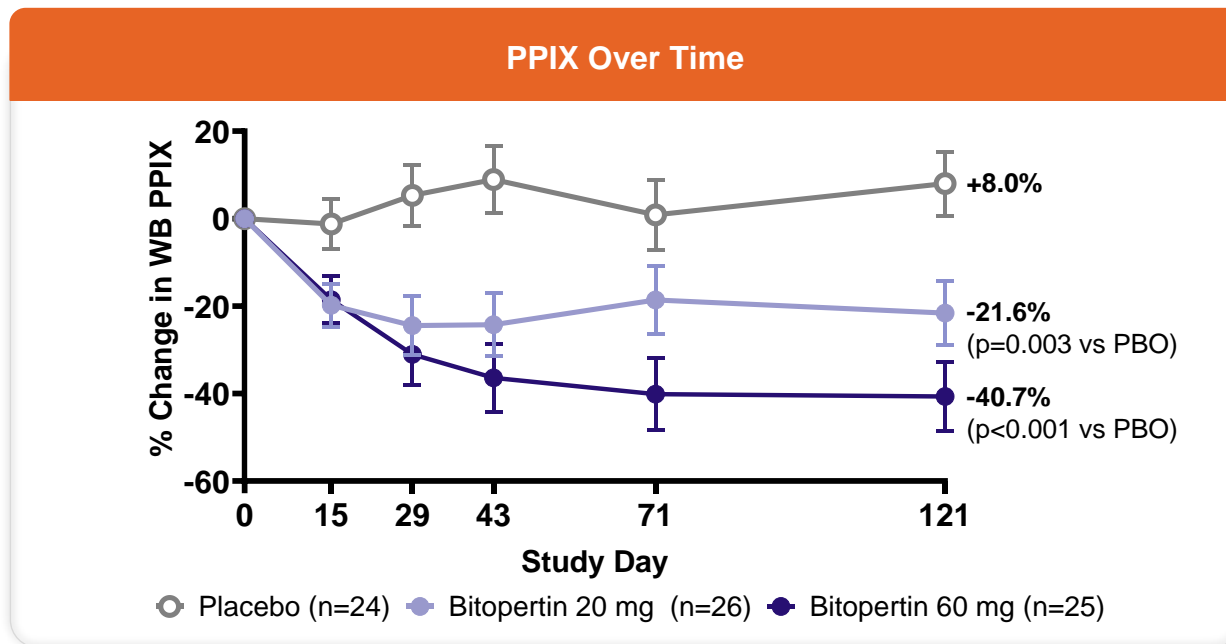
AURORA Study: Disposition and Baseline Characteristics

	Placebo (n=24)	Bitopertin 20 mg (n=26)	Bitopertin 60 mg (n=25)
Randomized	24	26	25
Completed Study	24	26	22
Discontinued Prior to Day 121	0	0	3
Characteristic			
Mean Age, years	42.3	45.0	47.8
Female, n (%)	12 (50%)	14 (54%)	12 (48%)
White, n (%)	24 (100%)	24 (92%)	24 (96%)
Baseline PPIX, Mean ± SE (ng/mL)	8,691 ± 903	8,155 ± 1,337	10,597 ± 983
Daily Sunlight Exposure (hr), Mean (range)	1.29 (0.18, 3.31)	1.17 (0.26, 4.03)	1.07 (0.04, 2.78)
Time to Prodrome, n (%)			
< 30 min	9 (38%)	9 (35%)	8 (32%)
≥ 30 min	15 (63%)	17 (65%)	17 (68%)

AURORA Met Primary Endpoint

Statistically significant reductions in whole-blood (WB) metal-free PPIX

- Bitopertin reduced PPIX levels consistent with BEACON, taking ~6-8 weeks to reach max reduction
- Significant reductions observed in both 20 mg and 60 mg doses

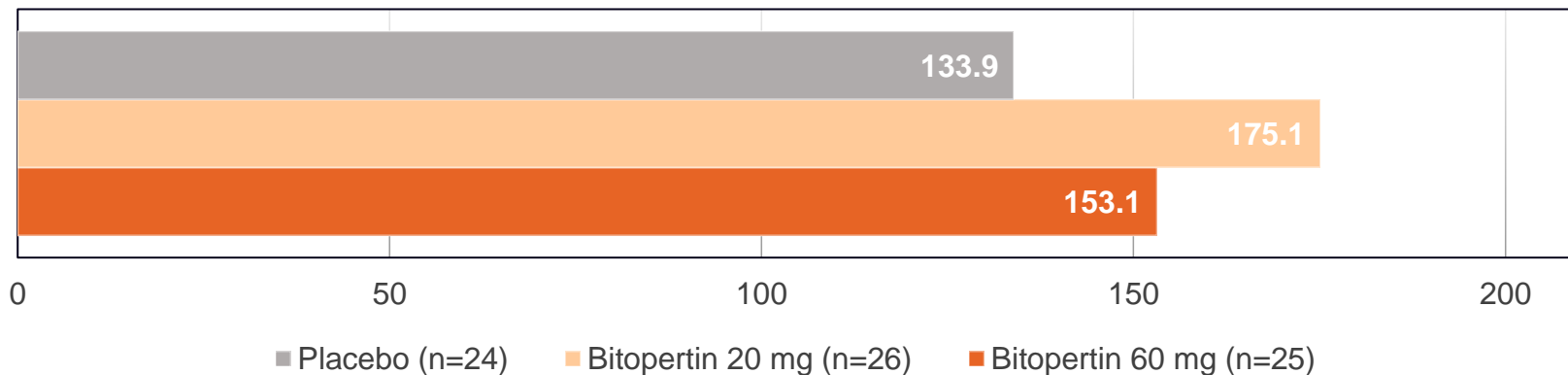


Updated AURORA Data: Key Secondary Endpoint

Cumulative time in light without pain

- ⦿ Bitopertin treatment effect similar to BEACON results
- ⦿ Did not meet statistical significance due to strong performance of placebo arm

Mean Cumulative 4-month Total Time in Light Without Pain (hr)

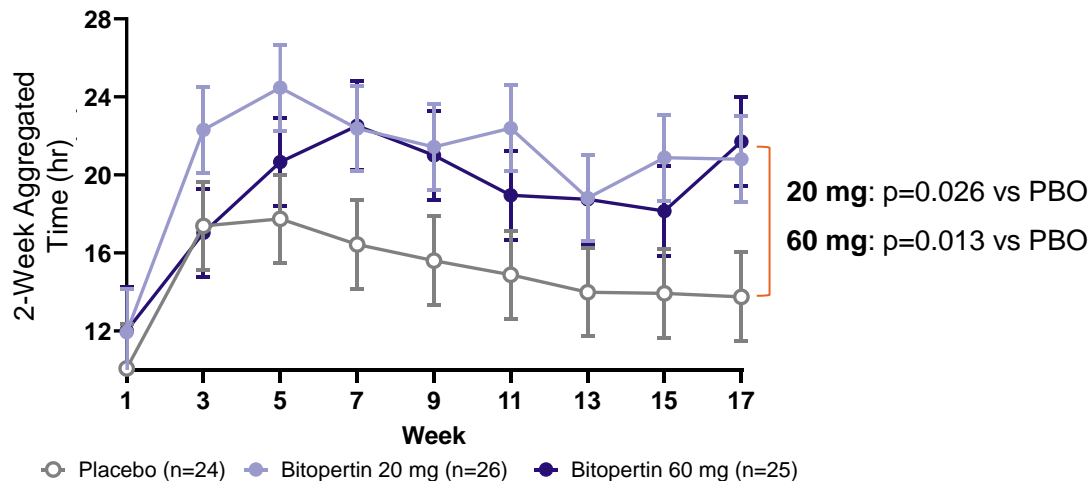


Updated AURORA Data: Time in Light Without Pain

Post-hoc longitudinal analysis adjusted for baseline

- Statistically significant improvements in daily time in light compared to placebo
- Meaningful changes in daily time in light relative to baseline

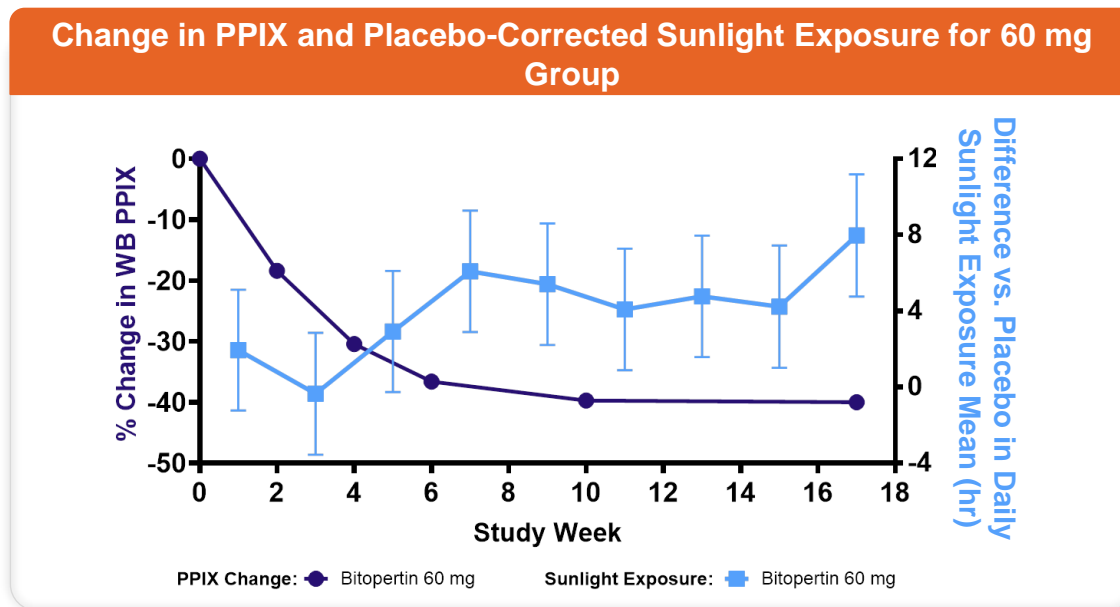
Sunlight Exposure Over 2-Week Intervals



Change from Baseline	
Bitopertin 60 mg (n=25)	2.0x
Bitopertin 20 mg (n=26)	1.9x
Placebo (n=24)	1.1x

Updated AURORA Data: Light Tolerance

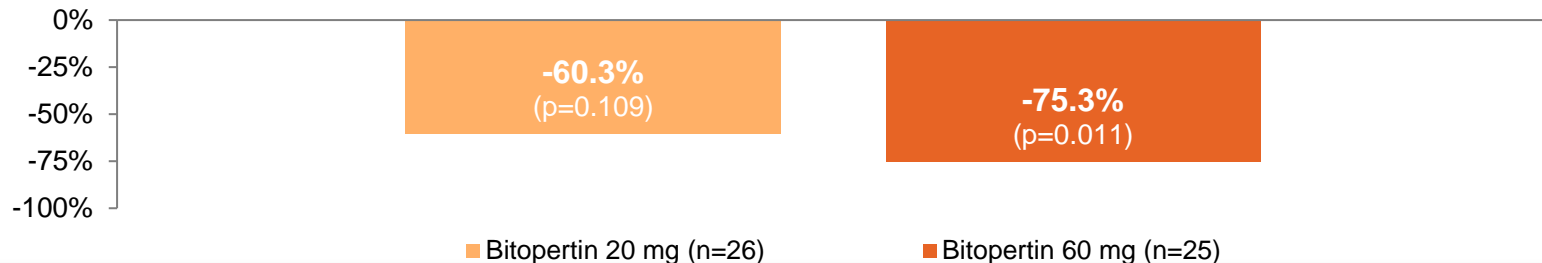
- Timing of PPIX reduction aligns with the time course of increases in sunlight tolerance



Updated AURORA Data: Phototoxic Reactions with Pain

- Dose-dependent reduction in rate of phototoxic reactions with pain, reaching statistical significance in the 60 mg dose group
- Max pain score reduced with bitopertin

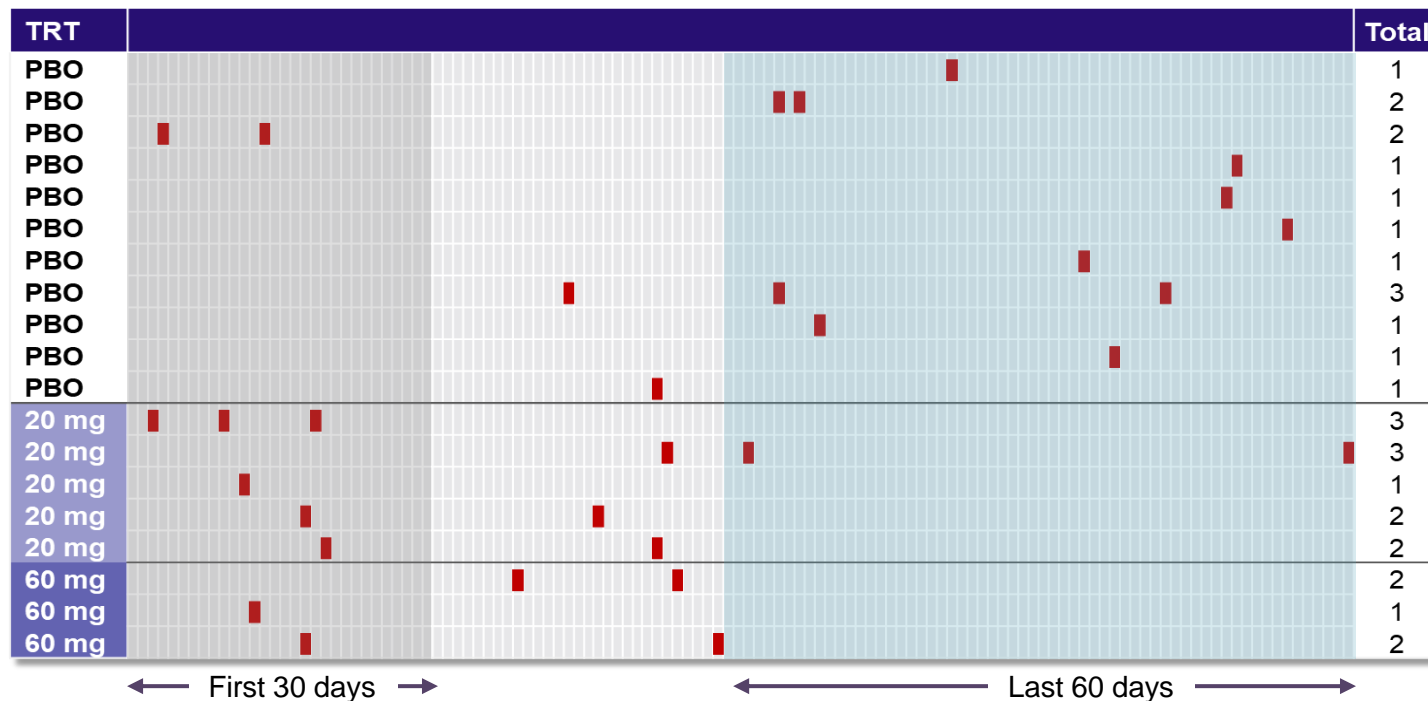
Incidence Rate Ratio of New Phototoxic Reactions with Pain vs. Placebo



	Screening (2-4 weeks)		Double-Blind Period (17 weeks)		
	# of New Reactions	# of Participants	# of New Reactions	# of Participants	Median Max Pain Score
Placebo (n=24)	4	2 (8%)	15	11 (46%)	5.0
Bitopertin 20 mg (n=26)	11	8 (31%)	11	5 (19%)	4.0
Bitopertin 60 mg (n=25)	8	6 (24%)	5	3 (12%)	3.5

Updated AURORA Data: Phototoxic Reactions with Pain

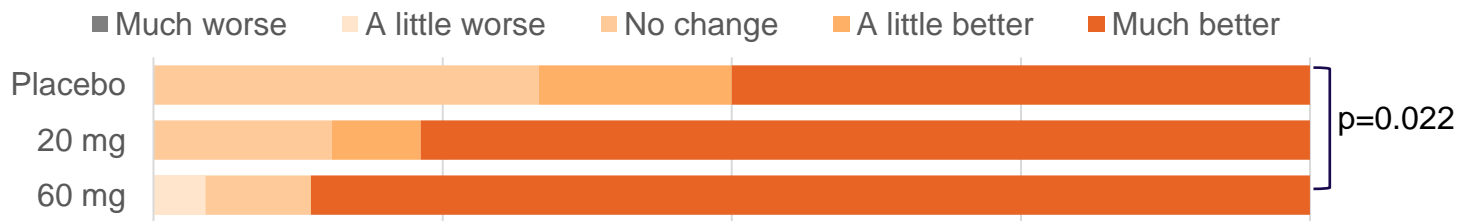
- Consistent with profile for PPIX reductions reaching a nadir, time course of phototoxic reactions showed greater bitopertin treatment effect during the last 60 days of study



Updated AURORA Data: Patient-Reported Outcomes

- Dose-dependent improvements in Patient Global Impression of Change (PGIC), reaching statistical significance in the 60 mg dose group at end of study
- Improved PGIC responses are associated with greater reductions in PPIX

PGIC: “Since the start of the study, how would you rate the change in your EPP?”



% PPIX Change	PGIC Response				
	Much worse	A little worse	No change	A little better	Much better
N	0	1	14	6	48
Mean (SD)	-	43.8	6.7 (64.9)	-0.4 (15.2)	-25.9 (31.7)

Updated AURORA Data: PPIX Change and Light Tolerance

- Greater PPIX reductions in bitopertin participants reporting no phototoxic reactions (-36.5%) vs phototoxic reactions (-4.0%)
- PPIX reductions associated with improvements in multiple measures of light tolerance

Tertiles of PPIX Change



Light Tolerance Measure (Mean ± SD)	Tertile 1 (-88% to -38%)	Tertile 2 (-38% to -7%)	Tertile 3 (-7% to 190%)
Cumulative total time in sunlight without pain (hr)	161.1 ± 142.6	124.5 ± 68.3	117.5 ± 83.2
Average time in sunlight without pain (hr)	1.61 ± 1.32	1.20 ± 0.72	1.16 ± 0.83
Change from baseline in time to prodrome (min)	117.4 ± 148.6	109.4 ± 121.1	64.1 ± 123.8

Safety and Tolerability

- No serious adverse events reported with bitopertin
- Stable hemoglobin levels
- Favorable safety profile consistent with prior studies enrolling >4000 participants

	Placebo (n=24)	Bitopertin 20 mg (n=26)	Bitopertin 60 mg (n=25)
Participants with any TEAE, n (%)	18 (75%)	20 (77%)	22 (88%)
TEAEs leading to discontinuation, n (%)	0	0	2 (8%)
SAEs, n (%)	1 (4%)	0	0
Common TEAEs			
Dizziness, n (%)	4 (17%)	4 (15%)	11 (44%)
Median Duration (days)	2.0	4.5	5.0
Nausea, n (%)	2 (8%)	1 (4%)	4 (16%)
Alanine aminotransferase increased, n (%)	3 (13%)	1 (4%)	2 (8%)

Summary of EPP Bitopertin Data

BEACON and AURORA Studies

AURORA

- Significant reductions in PPIX
40% vs placebo
- Time-dependent, 2x improvements
in pain-free time in sunlight
- Significant 75% reduction in rate
of phototoxic reactions vs placebo
- Significant improvement in PGIC
vs placebo

◆-----◆
**Targets underlying
pathophysiology of EPP**
-----◆

◆-----◆
**Significant improvement
in sunlight tolerance**
-----◆

◆-----◆
**Functional benefit by reducing
debilitating phototoxic reactions**
-----◆

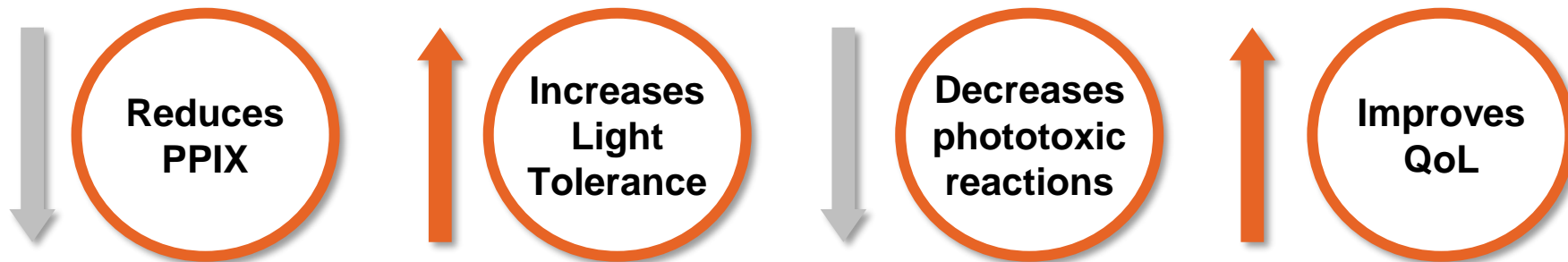
◆-----◆
**Significantly improved
how patients feel**
-----◆

BEACON

- Significant reductions in PPIX
>40% vs baseline
- Significant 3x increase in sunlight
tolerance (time to prodrome)
- 92% reduction in number of
phototoxic reactions vs baseline
- Nearly all (95%) participants reported
improvements in PGIC

Summary of Updated Bitopertin Data

Bitopertin demonstrated meaningful impact on key aspects of EPP



➤ Next Steps

- End of Phase 2 meeting in second half of 2024; initiation of a pivotal study in 1H 2025
- Range of available endpoints to bring to regulators that address the placebo effect
 - *Options include:* longitudinal analysis of time in sunlight, phototoxic pain reactions, PPIX, composites of multiple endpoints, and others

Diamond Blackfan Anemia

Genetic condition caused by defective erythropoiesis

- Mutations in ribosomal protein genes (classically RPS19)
- Heme/globin imbalance: excess heme accumulation leading to toxicity as globin synthesis is delayed

Characterized by severe anemia that presents in infancy

- Anemia, fatigue, delayed growth, cardiac or renal defects, risk of malignancy
- Patients may also have distinct physical features / congenital abnormalities (i.e., cleft palate, thumb and upper limb abnormalities, short stature, microcephaly)

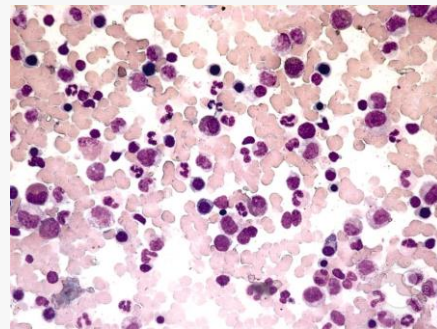
No approved treatments for DBA

- Patients receive steroids and blood transfusions to manage their condition
- Median life expectancy is 38 years, with 25% mortality by age 50

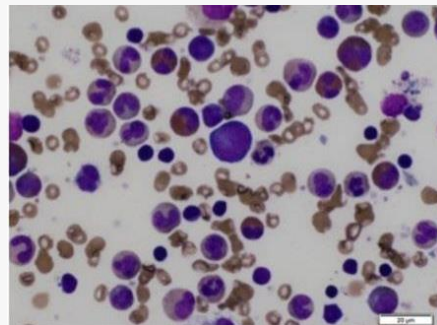
Rare disease with an incidence rate of 5-7 per 1 million live births

- Estimated worldwide prevalence of 5,000

Normal



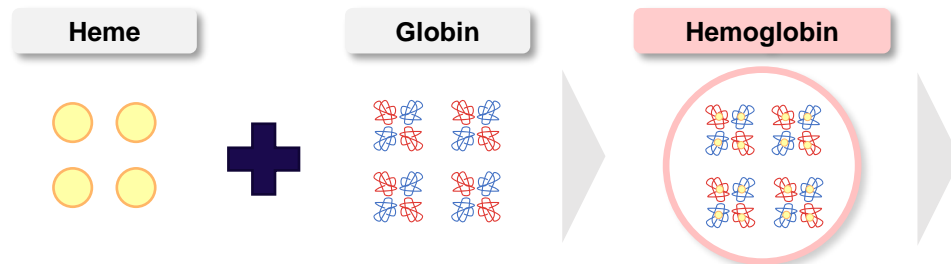
DBA



Diamond Blackfan Anemia: Heme Toxicity

Normal Erythropoiesis

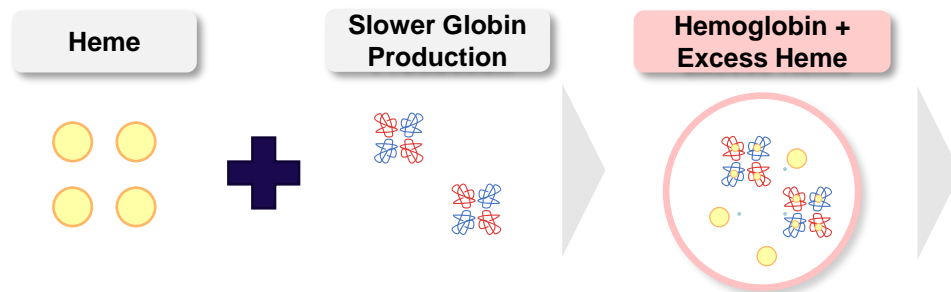
Glycine
Critical and initiating precursor
for heme biosynthesis and is
supplied by **GlyT1 transporter**



**Complete
Maturation**

DBA Erythropoiesis

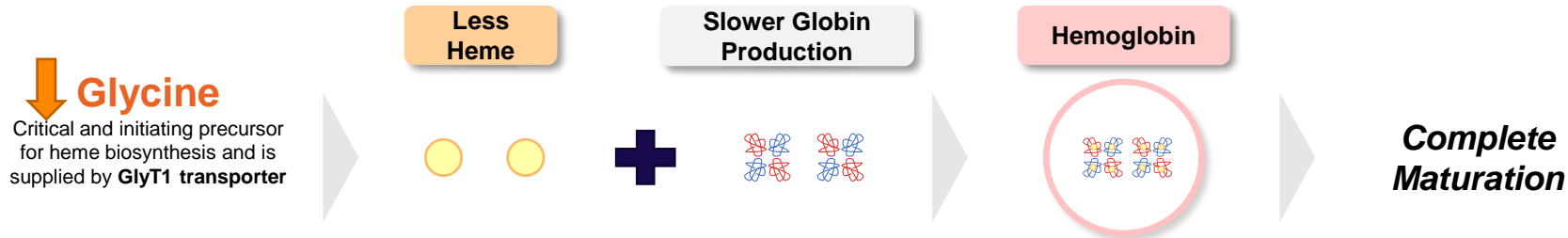
Glycine
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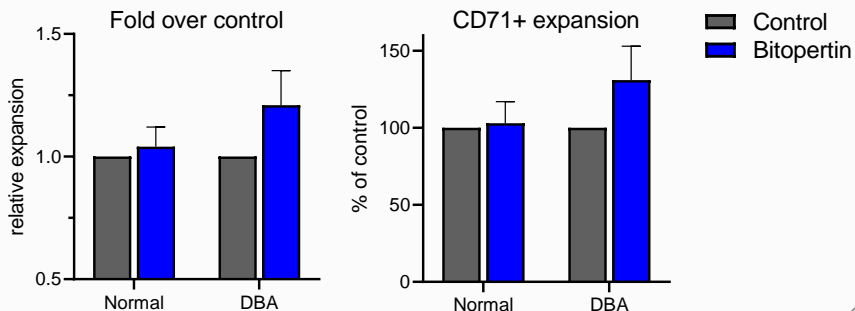
**Heme
toxicity and
cell death**

Bitopertin in Diamond Blackfan Anemia

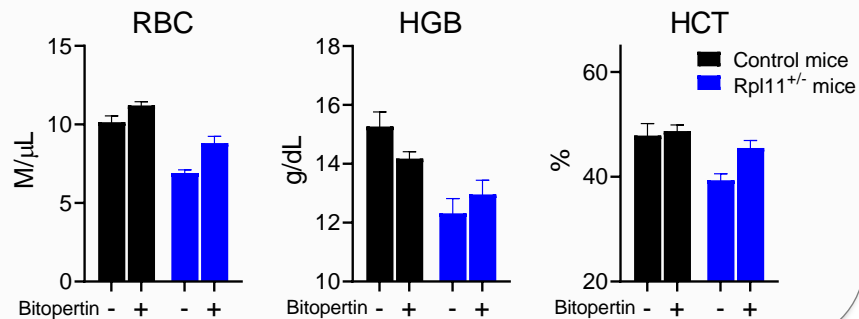
By slowing the influx of glycine, bitopertin lowers heme production, reducing the amount of excess heme and preventing cell death



Primary human marrow in erythroid differentiation cultures treated with 10 ng/ml bitopertin for 7 days



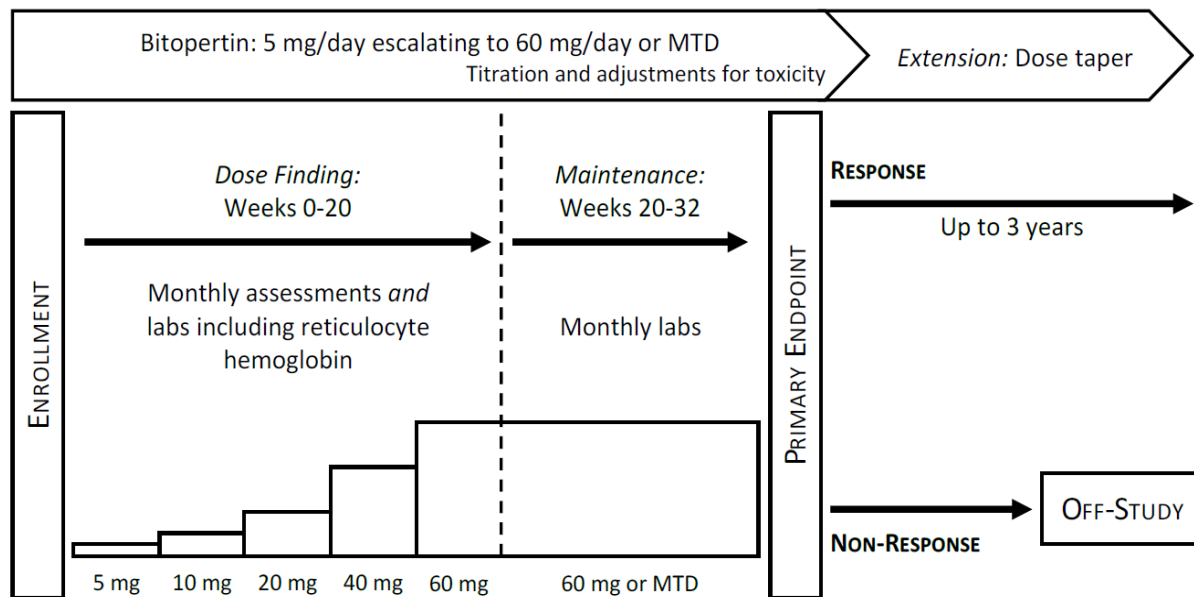
Rpl11 haploinsufficient mice were treated with 100 ppm bitopertin in chow (20 mg/kg/d) for 8 weeks



Diamond Blackfan Anemia Phase 2 Clinical Trial

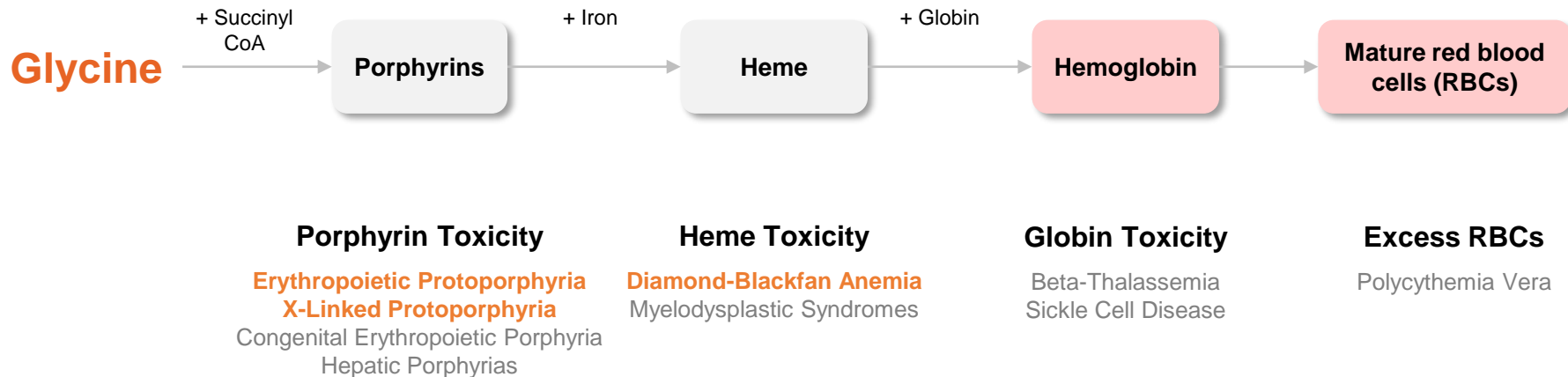
IIT conducted by the NIH under CRADA with Disc

- Single-arm, dose-escalation study with extension
- N=15-25 patients with steroid-refractory and/or relapsed disease, or steroid intolerant
- Response defined as >50% reduction in RBC transfusions over 8-week period or an increase in pre-transfusion hemoglobin of >1.5 g/dL



Multiple Additional Potential Applications of Bitopertin

Inhibiting heme synthesis with bitopertin has potential to address a wide range of hematologic diseases





Hepcidin Modulation

Iron Homeostasis

Iron is Fundamental to RBC Biology

Hepcidin is a regulatory hormone that plays a central role in iron metabolism and homeostasis

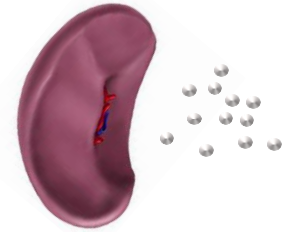
Induced by Inflammation

Hepcidin

Gatekeeper Function: Blocks iron absorption and recycling



GI Tract
Iron Intake



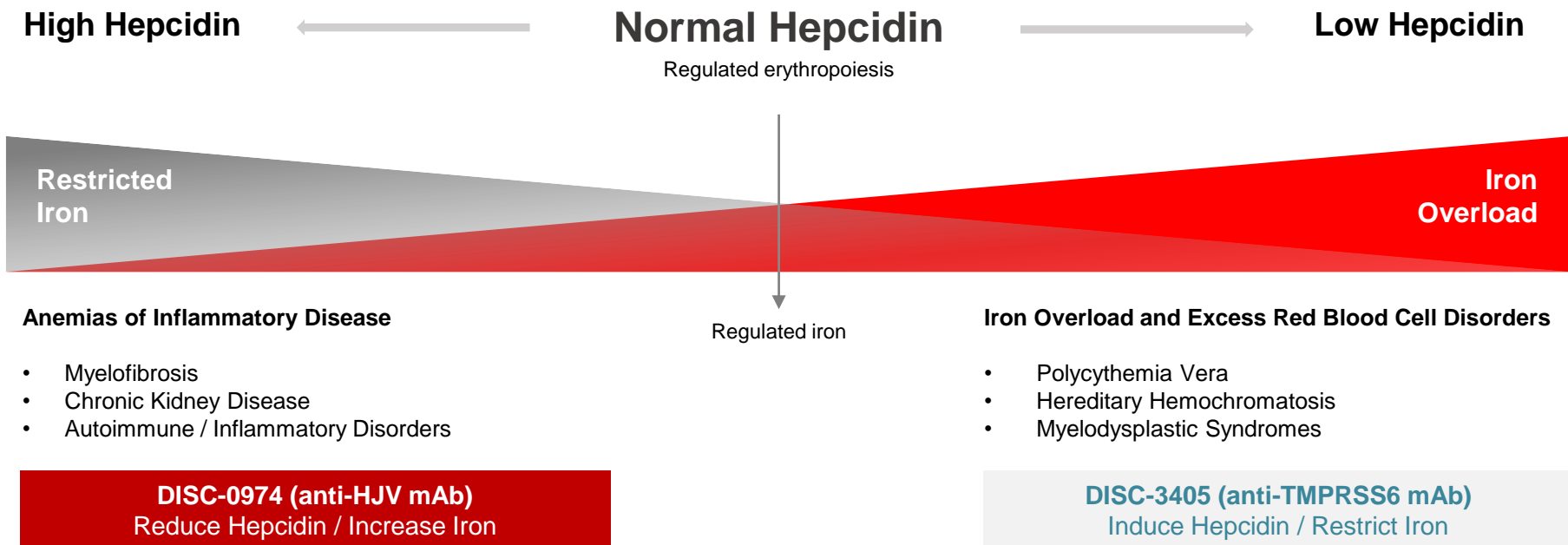
Spleen
Iron Storage



**RBC Production in
Bone Marrow**

Hepcidin is a Therapeutic Target for Diseases

Dysregulated hepcidin drives a wide range of hematologic diseases

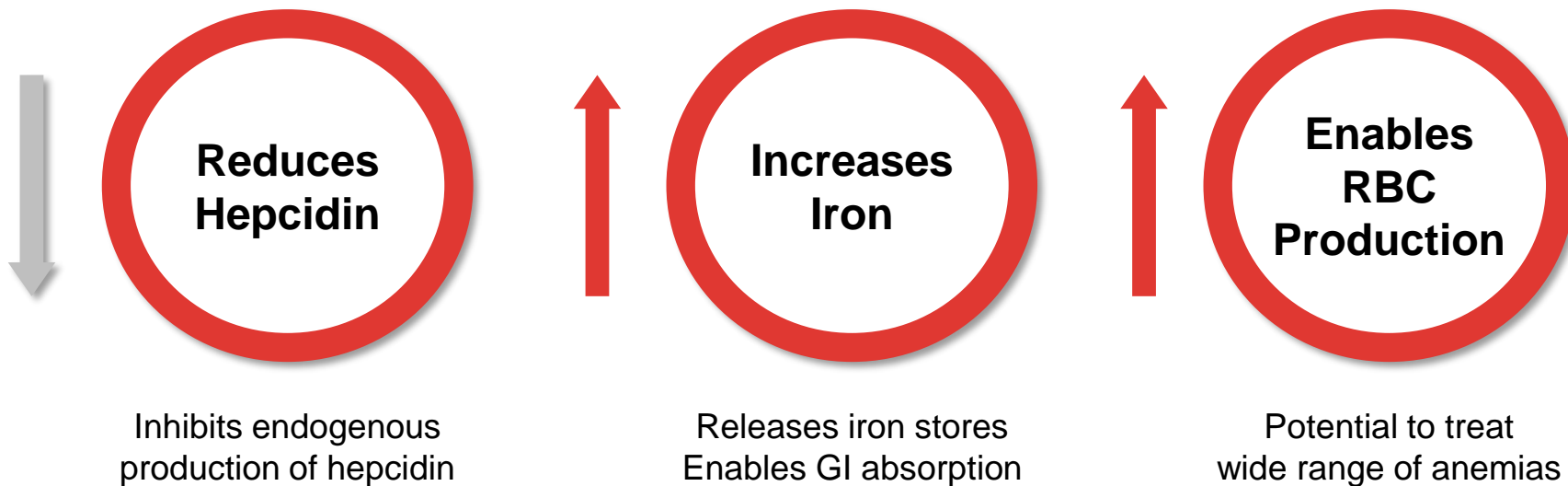




DISC-0974
Anti-HJV mAb
Hepcidin Suppression

DISC-0974: Novel Anti-HJV mAb to Suppress Hepcidin

Designed to enhance iron availability to address a wide range of hematologic disorders



Significant Opportunity in Anemia of Inflammation

Numerous chronic diseases associated with anemia from high hepcidin

Anemia Types	US Prev.	Est. % Anemic
Myelofibrosis (MF)	16-18.5K	87%
Chronic Kidney Disease (CKD)	37 MM	17-50%
Inflammatory Bowel Disease	1.6 MM	25-35%
Anemia of Cancer	17 MM	35-80%
Systemic Lupus Erythematosus	210K	50%

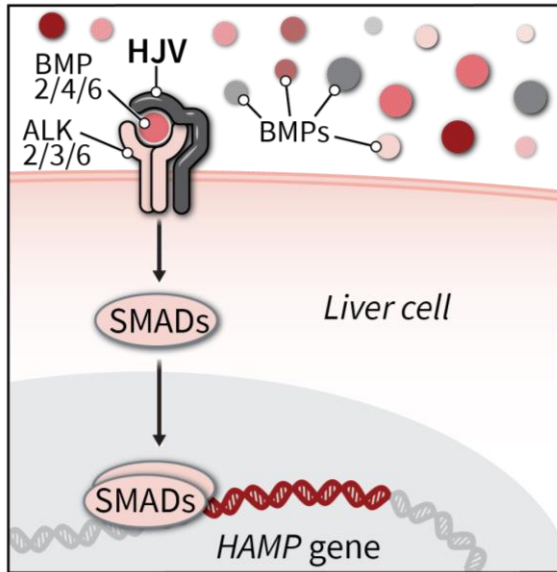
- **Anemia of inflammation** is the 2nd most common form of anemia
- **Estimated 40% of all anemias** are driven by or have an inflammatory component
- **Hepcidin is up-regulated** and correlates with anemia, driven by inflammation

Bold = ongoing Disc trial

Sources: Weiss (2019); Maccio (2014); Tefferi (2012); Lupus Foundation; Stauffer (2014); Filmann (2014); Koutroubakis (2015); Crohn's and Colitis Foundation

Targeting Hemojuvelin (HJV) to Suppress Hepcidin

Critical and specific target for hepcidin expression



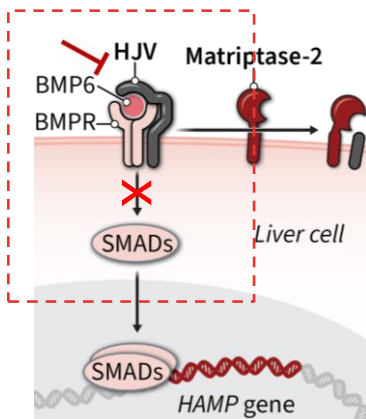
Inhibiting Hemojuvelin (HJV) Prevents Hepcidin Expression and Increases Iron

- **Genetic validation** in patients with Juvenile Hemochromatosis (lower hepcidin and elevated iron levels)
 - Loss-of-function mutations in HJV are phenotypically indistinguishable from mutations in *HAMP* (hepcidin) gene
- **Functionally specific** to hepcidin / iron
- **Tissue specific** expression primarily in the liver

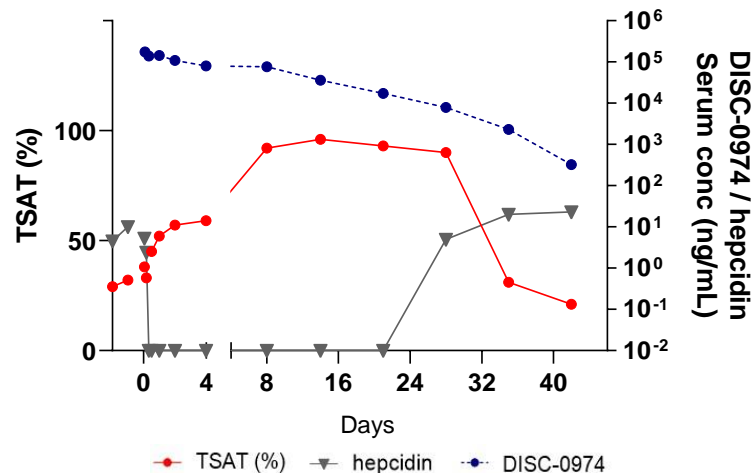
DISC-0974 Mechanism of Action

Designed to reduce hepcidin and increase serum iron levels

DISC-0974 mAb binds to and prevents signaling through hemojuvelin (HJV) co-receptor



Potent and rapid effects on hepcidin and iron with single 5 mg / kg dose (NHP)

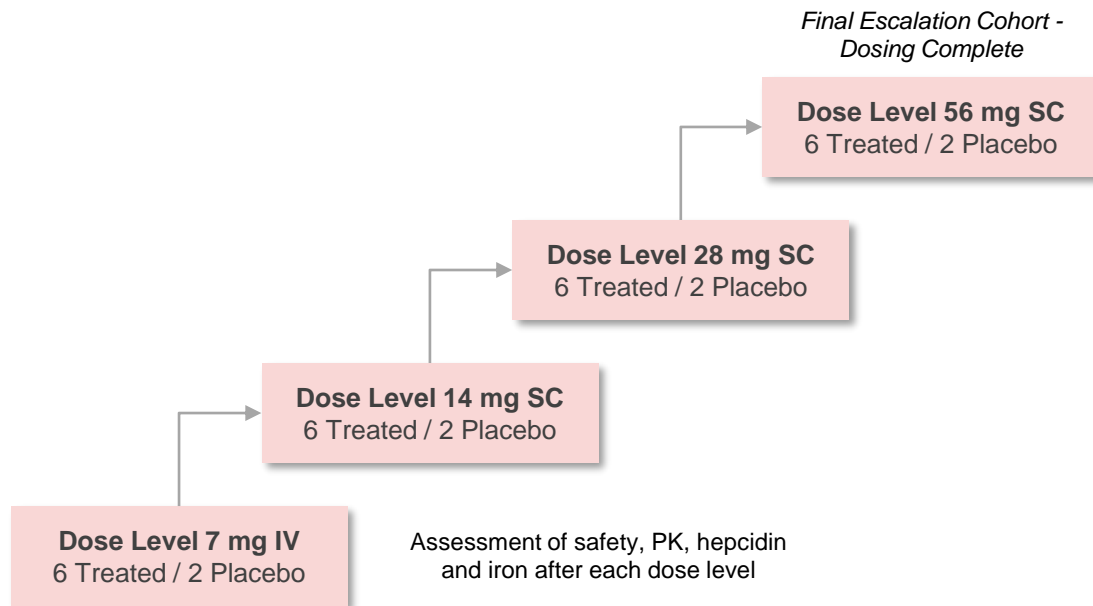


Phase 1 SAD Trial in Healthy Volunteers

Established proof-of-mechanism based on hepcidin and iron parameters

Trial Design

- Single-ascending dose in ≥ 32 healthy volunteers
- Key outcome measures:
 - Safety and PK
 - Hepcidin level, serum iron level, % TSAT
- Dose escalation until TSAT $> 40\%$ for at least 2 weeks
- Dose levels: 7 mg dose (IV); 14, 28 and 56 mg doses (SC)

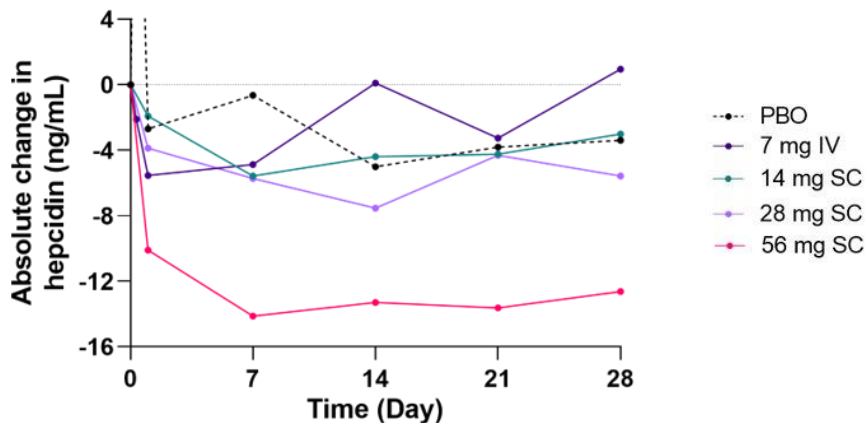


DISC-0974 Phase 1 SAD Data

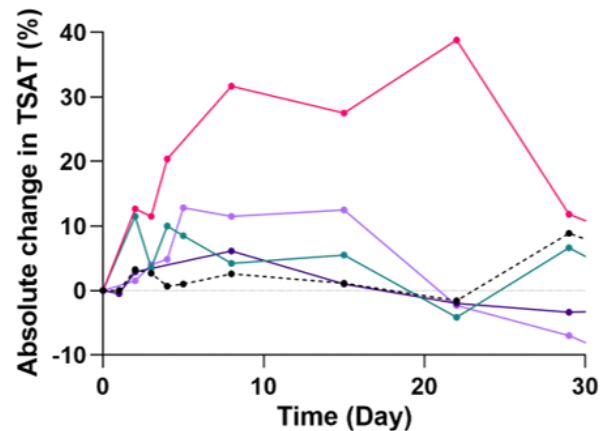
Dosing of DISC-0974 demonstrated a reduction of hepcidin and iron mobilization



DISC-0974 Reduced Hepcidin Production

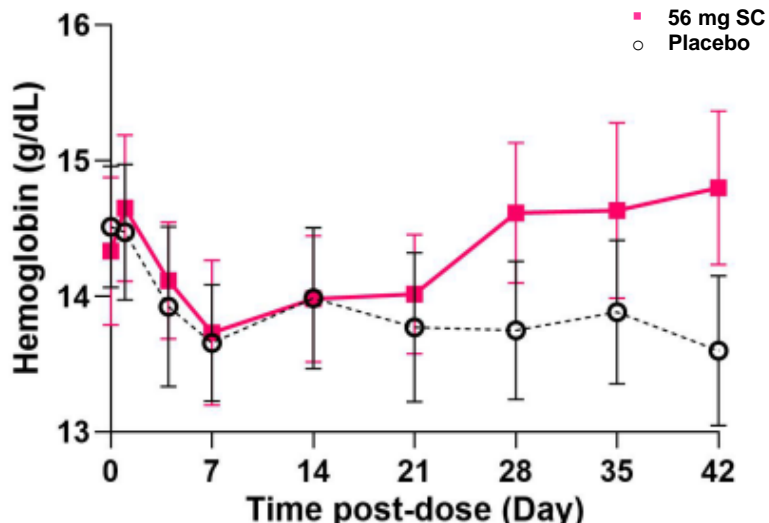
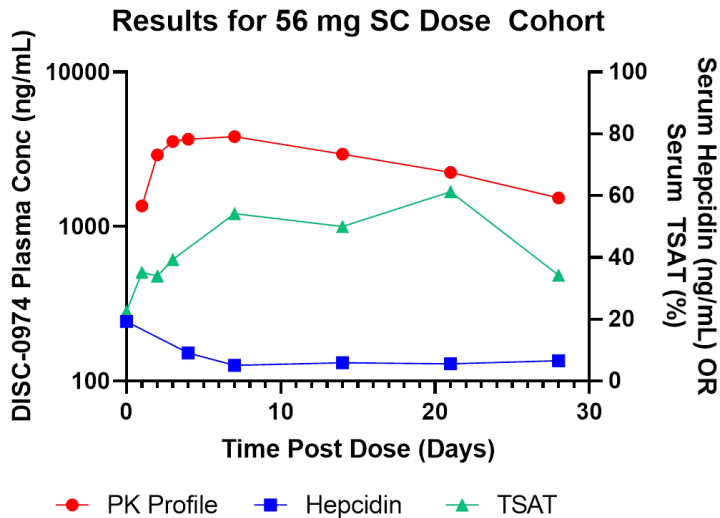


DISC-0974 Increased TSAT



DISC-0974 Phase 1 SAD Data (cont.)

Top dose (56 mg) pharmacodynamic activity improved key clinical parameters (> 1g/dL Hgb)



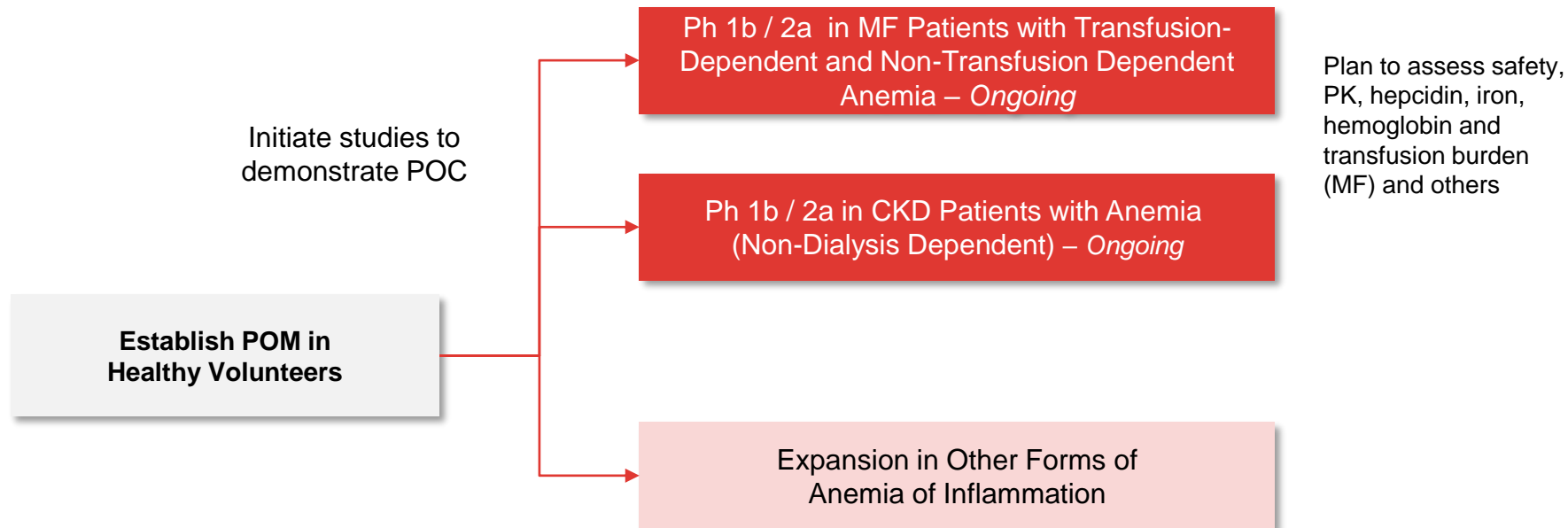
DISC-0974 Phase 1 SAD Safety

Safety profile was consistent with selective target biology and preclinical studies; no serious or AEs > Grade 1

	Total n=42	Pooled Placebo n=10	7 mg IV n=8	14 mg SC n=6	28 mg SC n=6	28 mg IV n=6	56 mg SC n=6
Diarrhea	1 (2.4)	1 (10.0)	0	0	0	0	0
Dizziness	2 (4.8)	0	0	0	0	1 (16.7)	1 (16.7)
Dyspepsia	1 (2.4)	0	0	0	0	0	1 (16.7)
Eye pruritis	1 (2.4)	0	0	0	1 (16.7)	0	0
Peripheral swelling	1 (2.4)	0	0	0	0	1 (16.7)	0
Headache	1 (2.4)	0	0	0	1 (16.7)	0	0
Myalgia	1 (2.4)	0	0	0	0	0	1 (16.7)
Nasal congestion	1 (2.4)	0	0	0	0	0	1 (16.7)
Pain in extremity	1 (2.4)	1 (10.0)	0	0	0	0	0
Seasonal allergy	1 (2.4)	0	0	0	1 (16.7)	0	0
Vessel puncture site bruise	1 (2.4)	1 (10.0)	0	0	0	0	0
Vomiting	1 (2.4)	1 (10.0)	0	0	0	0	0

DISC-0974 Development Strategy

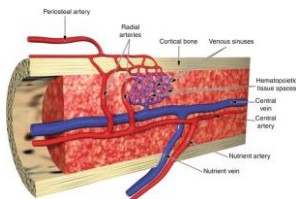
Aim to demonstrate POC in anemia of MF and CKD



Hepcidin is a Key Driver of Myelofibrosis (MF) Anemia

Anemia is severe and prevalent in MF and can limit treatment

Anemia of MF



> Est. # Patients

- 25,000 patients (US)
- ~87% are anemic; severe and require transfusion

> Etiology of Anemia

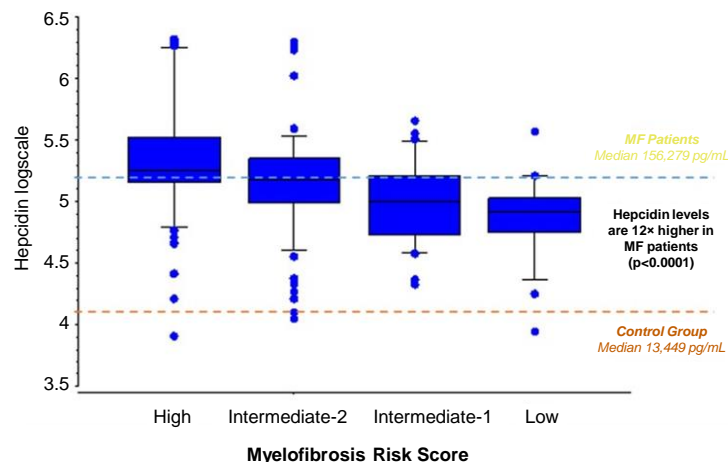
- High hepcidin from inflammation
- JAK inhibitors worsen anemia; loss of marrow function

> Unmet Medical Needs

- Severe and difficult to treat; high transfusion burden
- No approved or effective anemia therapy
- Anemia limits optimal JAK inhibitor treatment

Hepcidin Levels are Elevated in MF

~ 12× higher than control and associated with severity of anemia and transfusion burden



Updated DISC-0974 MF Data: Baseline and Demographics

Data as of April 29, 2024

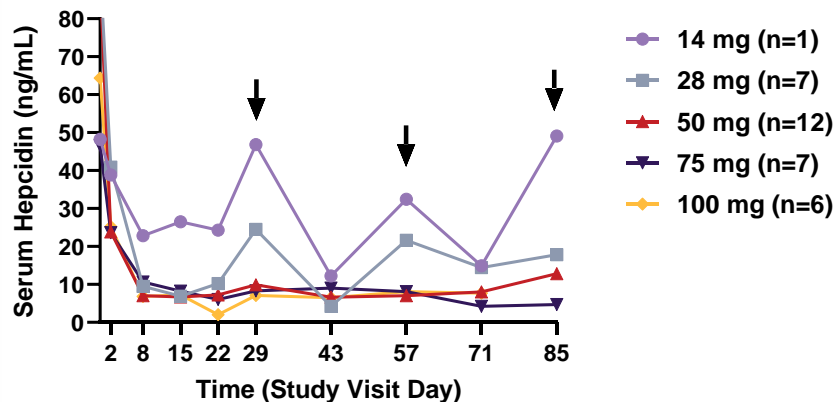
	DISC-0974 14 mg (N=1)	DISC-0974 28 mg (N=7)	DISC-0974 50 mg (N=12)	DISC-0974 75 mg (N=8)	DISC-0974 100 mg (N=6)
Age, median (range), years	70	71 (57, 89)	70.5 (31, 83)	74 (58, 84)	67.5 (53, 79)
Time since MF diagnosis, median (range), years	1	6 (0,18)	2.5 (0,14)	4 (0, 12)	1 (0,2)
Concomitant medication, n (%)					
JAK inhibitor	0	4 (57.1)	5 (41.7)	1 (12.5)	0
Hydroxyurea	1 (100)	0	0	1 (12.5)	0
Transfusion dependent, n (%)*	0	2 (28.6)	1 (8.3)	0	1 (16.7)
Baseline hepcidin, median (range), ng/mL	48.2	93.3 (21.4, 171.1)	90.2 (8.7, 155.7)	46.6 (23.7, 188.2)	64.4 (11.5, 374.7)
Baseline hemoglobin, median (range), g/dL	8.2	8.4 (6.8, 9.3)	8.6 (6.1, 10.3)	8.9 (6.7, 9.9)	8.2 (5.5, 9.4)

Defined as an RBC transfusion frequency of ≥6 units PRBC over the 84 days immediately prior to Screening. There must not be any consecutive 42-day period without an RBC transfusion in the 84-day period, and the last transfusion must be within 28 days prior to Screening. One participant treated with 28 mg discontinued DISC-0974 early due to physician decision. JAK = Janus kinase. Baseline is defined as: (1) Participants transfused within 84 days of screening; (1.a) transfusion dependent then use lowest hemoglobin level recorded in the 84 days before screening initiation (one reading). (1.b) Non-transfusion dependent then {1.b.i} participants transfused within 30 days before screening use the lowest pre-transfusion hemoglobin level (one reading). {1.b.ii} participants transfused within 84 days but not within the month before screening use average of the pre-transfusion hemoglobin level, screening hemoglobin level, and Day -1 level (3 readings); (2) Participants not transfused within 84 days of Screening use Screening and Day -1 average

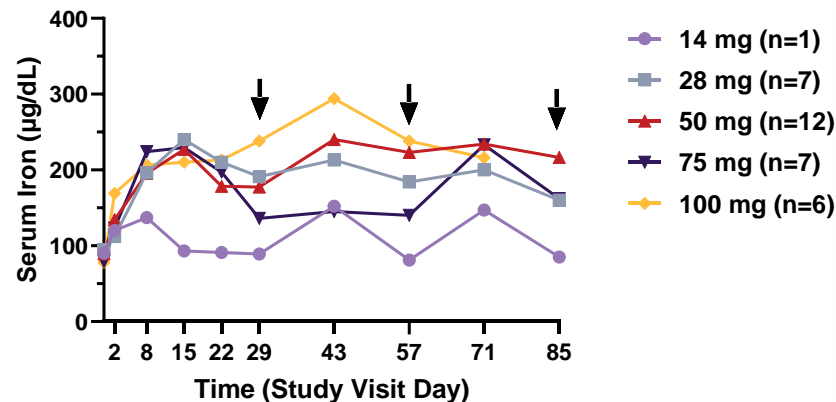
Updated DISC-0974 Anemia of MF Data: Hepcidin and Iron

- DISC-0974 demonstrated decreases in hepcidin and increases in serum iron
- Impact was consistent across all treated participants

Median Serum Hepcidin



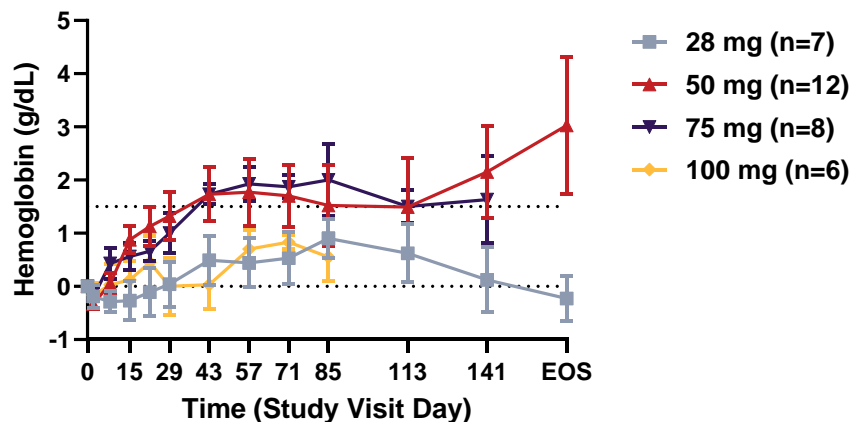
Median Serum Iron



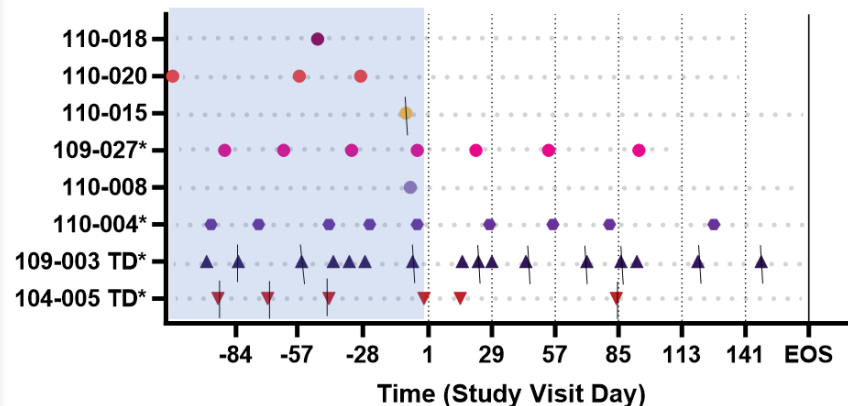
Updated DISC-0974 Anemia of MF Data: Hematologic Response

- DISC-0974 demonstrated sustained increases in hemoglobin across dose groups
- All evaluable participants with baseline transfusion requirement had at least a 50% reduction in transfusions over a rolling 8-week window on study compared to baseline

Hemoglobin Increase from Baseline in All Patients



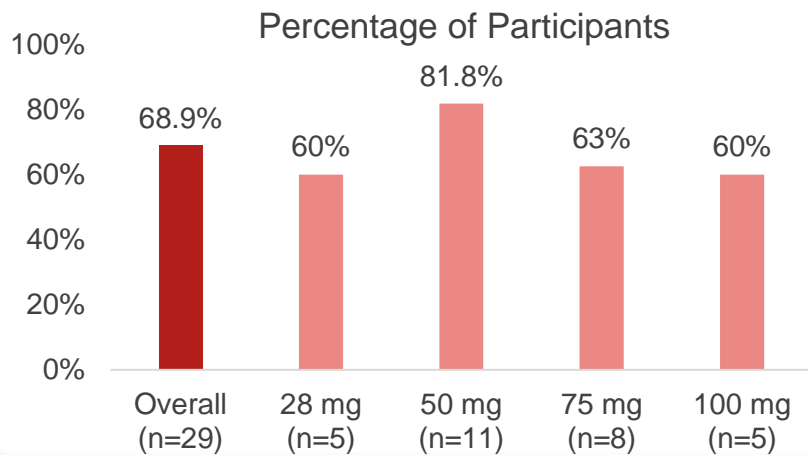
Transfusion Frequency Over Time¹



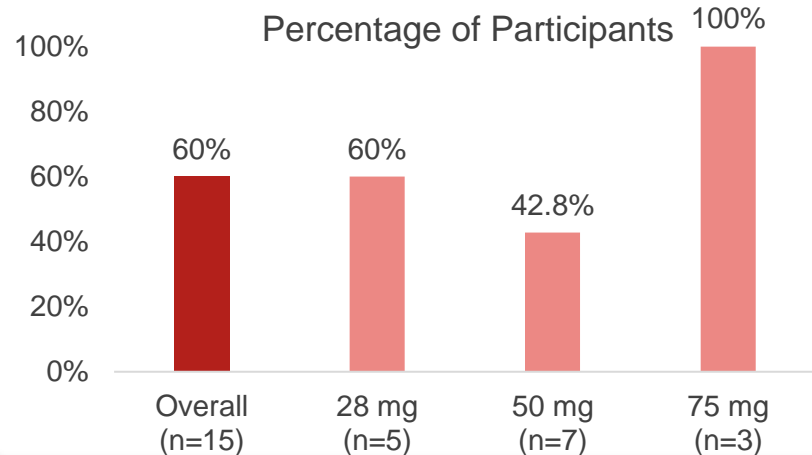
Updated DISC-0974 Anemia of MF Data: Hemoglobin Response in NTD Participants

- ⊗ Hemoglobin responses of ≥ 1.5 g/dL increase were achieved in 68.9% of NTD participants
- ⊗ For participants who have completed at least 16 weeks of the study, 60% of NTD had a mean hemoglobin response of 1.5 g/dL above baseline sustained for at least 12-weeks

NTD Participants with Hgb $\Delta \geq 1.5$ g/dL



NTD Participants with Hgb $\Delta \geq 1.5$ g/dL for ≥ 12 Weeks¹



Updated DISC-0974 Anemia of MF Data: Safety

⊕ Generally well tolerated at all evaluated dose levels

Adverse events at least possibly related to DISC-0974	14 mg (N=1)	28 mg (N=7)	50 mg (N=12)	75 mg (N=8)	100 mg (N=6)
Participants with event (n)	0	3	5	1	1
Diarrhea	0	1	2	1	0
Injection site bruising	0	1*	0	0	0
Pyrexia	0	1*	0	0	0
Blood bilirubin increased	0	0	0	0	1
Platelet count decreased	0	0	1*	0	0
Anemia	0	0	1*	0	0
Urinary tract infection	0	1*	0	0	0
Headache	0	0	1	0	0
Hot flush	0	0	1	0	0

AE = adverse event; JAKi = Janus kinase inhibitor

Grade 3 AEs include headache reported in 1 participant treated at 28 mg (unlikely related to DISC-0974) and Grade 3 anemia reported in 2 participants treated at 28 mg and 4 participants treated at 50 mg (one at 50 mg was deemed related to DISC-0974; all others were deemed not related). Serious AE: Grade 2 arthralgia was reported in 1 participant treated at 28 mg (not related to DISC-0974). There were no ≥ Grade 4 AEs reported. Liver iron concentration was obtained at baseline and end of study; for available participants (n=10), median change from baseline was 0.3 mg/g dry weight, range (-0.5 to 16.2). * indicates AE in a participant receiving concomitant JAKi therapy.

Summary of Updated DISC-0974 MF Data

**Decreased
hepcidin &
increased
iron**

68.9%
of NTD pts had
Hgb response
 $\geq 1.5\text{g/dL}$

60%
of NTD pts had
Hgb response
sustained for
 ≥ 12 weeks*

100%
of pts with
baseline
transfusions had
 $\geq 50\%$
reduction

1 of 2
TD pts
reached TI

**Generally
well
tolerated**

Summary of DISC-0974 in MF Anemia

DISC-0974 demonstrated improved hemoglobin response and transfusion burden in MF



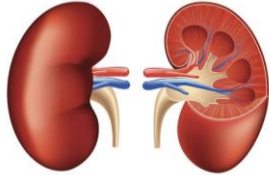
➤ Next Steps

- End of Phase 1b meeting with regulators in H2 2024
- Initiation of Phase 2 study by the end of 2024

Hepcidin is a Key Driver of CKD Anemia

Pervasive issue that is currently highly under-treated

Anemia of CKD



> Est. # Patients

- 5 to 6 million anemic NDD-CKD patients in the US alone

> Etiology of Anemia

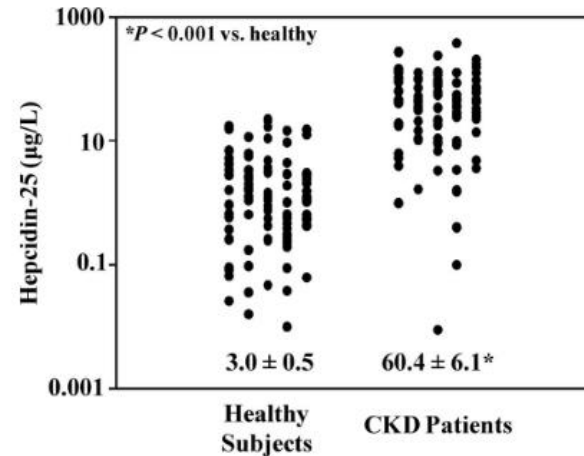
- High hepcidin from inflammation & poor renal clearance
- Compromised erythropoietin production

> Unmet Medical Needs

- Majority patients untreated or under-treated
- ESAs restricted due to safety and black box
- Mean Hb 9.3 g/dL in patients initiating dialysis

Hepcidin Levels Elevated in CKD Patients

~20x higher than healthy subjects and increases with disease severity

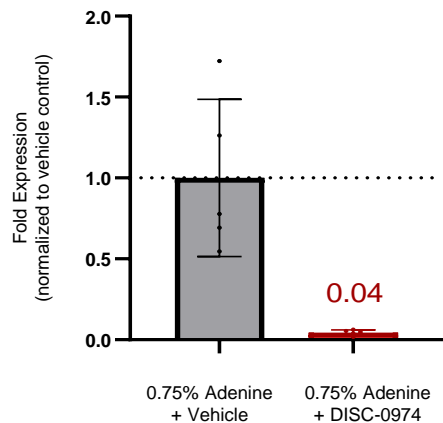


DISC-0974 Improved Anemia in Model of CKD

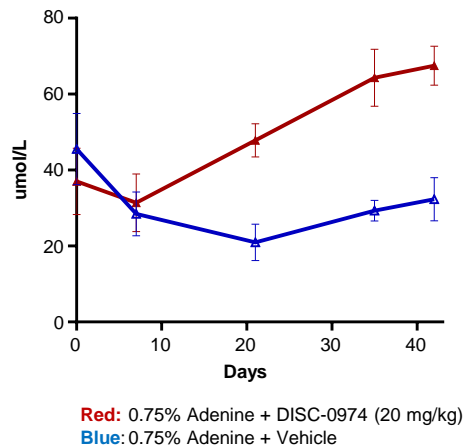
Rat Model of Adenine Diet-Induced CKD



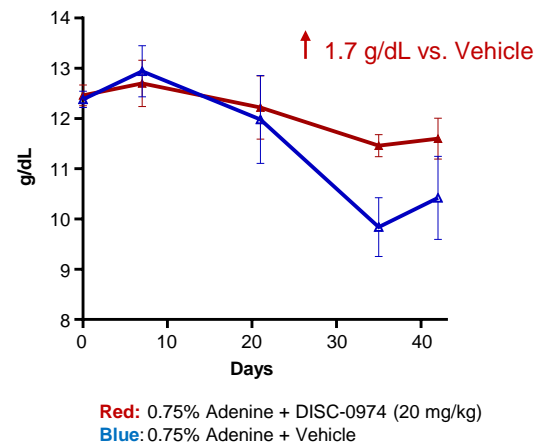
DISC-0974 Reduced
Hepcidin Expression



DISC-0974 Increased
Serum Iron



DISC-0974 Increased
Hemoglobin Levels



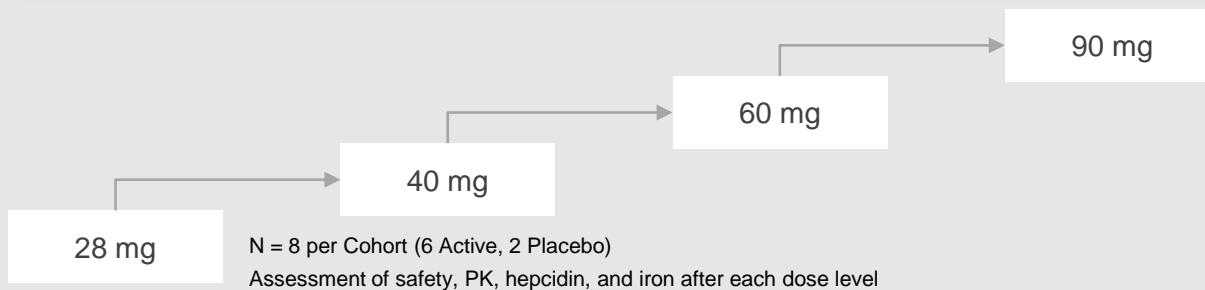
DISC-0974 NDD-CKD Anemia Trial Overview

Data as of October 20, 2023

Trial Population

- Stage II-V CKD; Adult
- Not receiving dialysis
- Hgb (g/dL) <10.5 (F), 11 (M)
- Exclude iron-deficient anemia by ferritin and TSAT

Phase 1b | Single-Ascending Dose



Key Endpoints/Measures: Change in hemoglobin; iron, hepcidin, and other hematologic parameters, safety / tolerability

Data availability: Initial data presented at ASH 2023; updated Phase 1b data to be presented 2H 2024

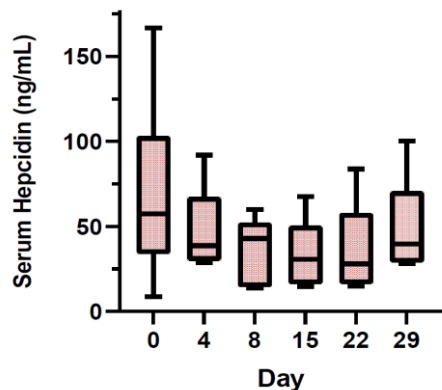
	DISC-0974 28 mg	Placebo
Enrolled	6	2
Median Age (range), years	69.5 (55, 78)	74.5 (73, 76)
Median Baseline Hemoglobin (range), g/dL	9.7 (7.9, 10.5)	9.5 (9, 10)

ASH 2023 DISC-0974 Anemia of CKD Data: Heparidin and Iron

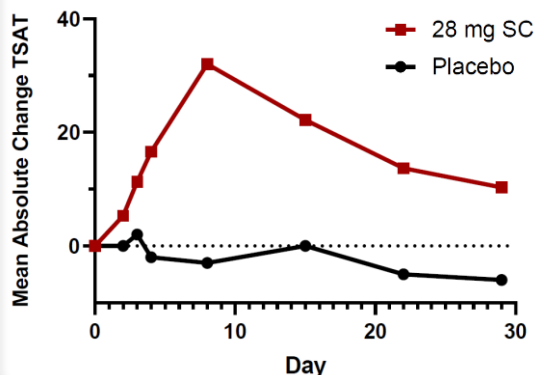
First Cohort: 28 mg SC

- ⊗ Meaningful reduction in serum heparidin with corresponding increase in serum iron
- ⊗ Similar PK/PD relationship as seen in healthy volunteers

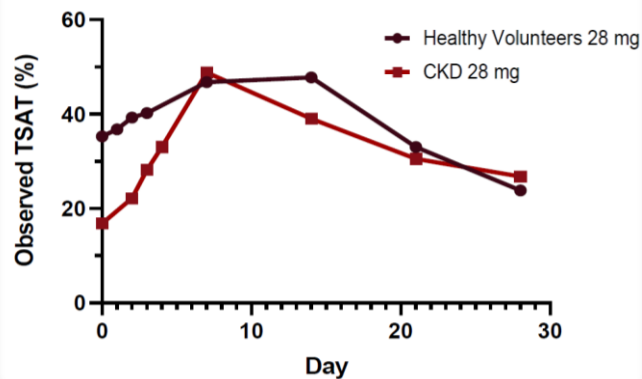
Heparidin Changes Over Time



Iron Changes Over Time



Iron Changes Over Time vs. HV



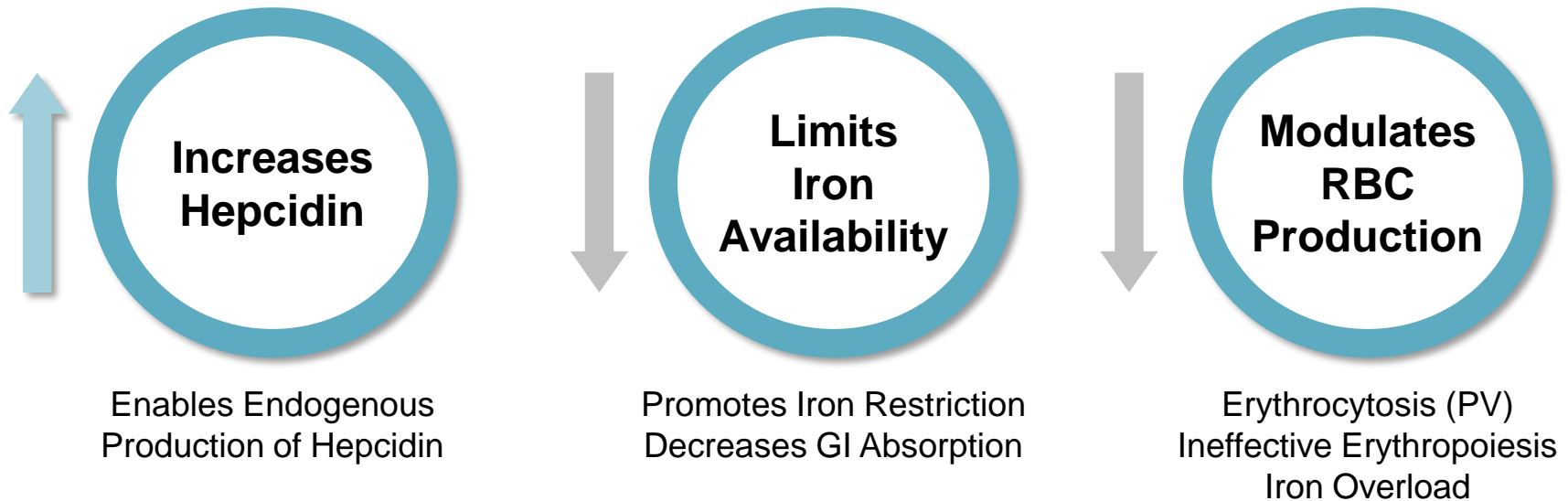
Safety: DISC-0974 was generally well tolerated to date; 2 subjects treated with DISC-0974 28 mg had a TEAE (33%) vs. 2 on placebo (100%); 2 treated subjects had SAEs deemed not related to DISC-0974*



DISC-3405
Anti-TMPRSS6 mAb
Hepcidin Induction

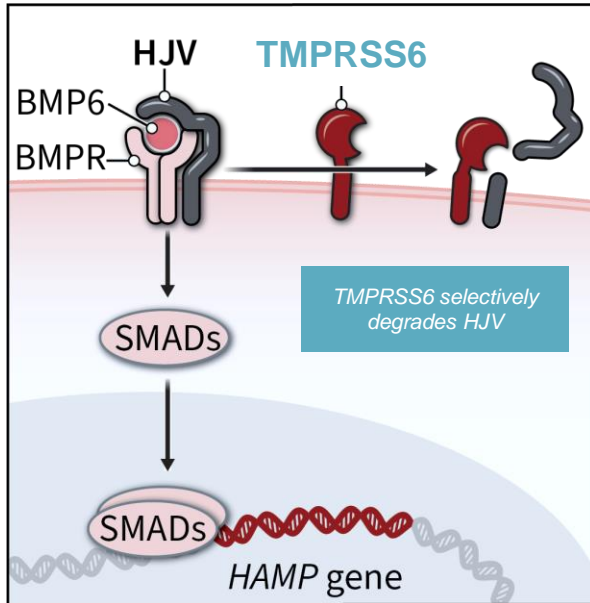
Anti-TMPRSS6 mAb Induces Hepcidin

Designed to limit iron levels with potential to address a wide range of hematologic disorders



Targeting TMPRSS6 to Increase Hepcidin

Potent, specific target controls endogenous hepcidin production



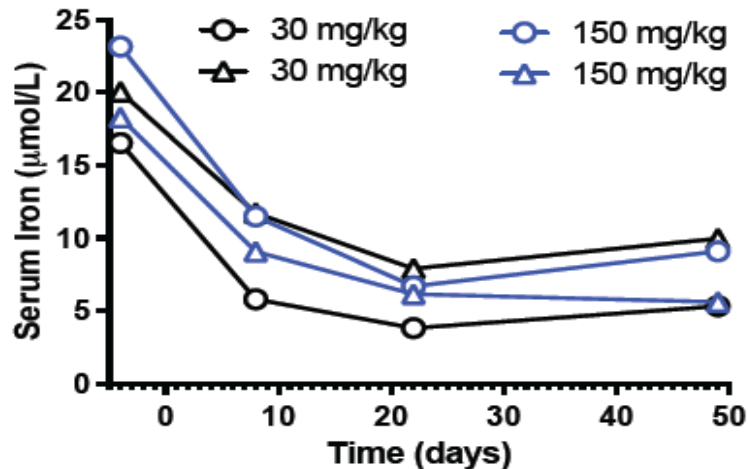
Inhibiting TMPRSS6 with an Antibody Enables Hepcidin Production to Suppress Iron

- **Genetic validation** in patients with IRIDA (Iron-Refractory Iron Deficiency Anemia)
 - LOF TMPRSS6 mutation increases hepcidin and reduces iron availability
- **Functionally specific** to hepcidin / iron
- **Tissue specific** expression primarily in the liver

DISC-3405 Effects in Non-Human Primates

Resulted in deep and sustained suppression of serum iron levels

Single dose of DISC-3405 resulted in ~ 70% suppression of serum iron lasting 3 weeks



- Potent PD effects observed across multiple preclinical studies consistent with TMPRSS6 inhibition
 - Heparin: 3-4 fold induction
 - Serum iron: ~60-70% suppression
- DISC-3405 demonstrated excellent safety profile in non-clinical GLP safety studies

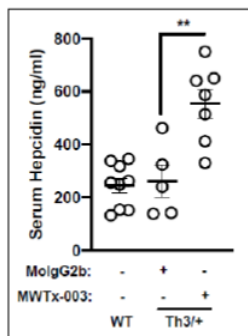
DISC-3405 in Beta Thalassemia and Polycythemia Vera

Significant effects on hallmarks of disease

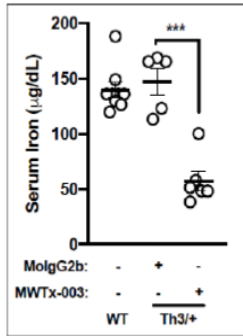
Hbb^{Th3/+} Model of Beta-Thalassemia

Jak2^{V617F} model of Polycythemia Vera

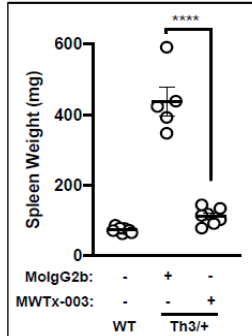
↑ Hepcidin Production



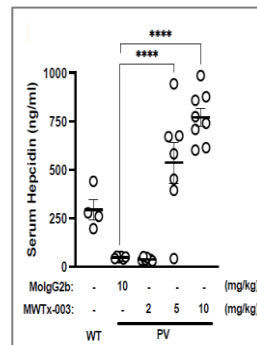
↓ Iron



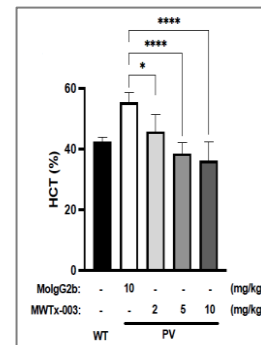
↓ Spleen Weight



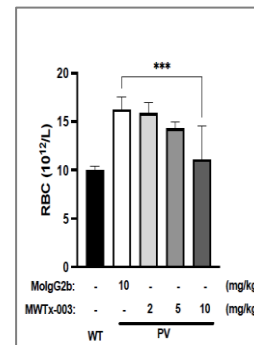
↑ Hepcidin Production



↓ Hematocrit

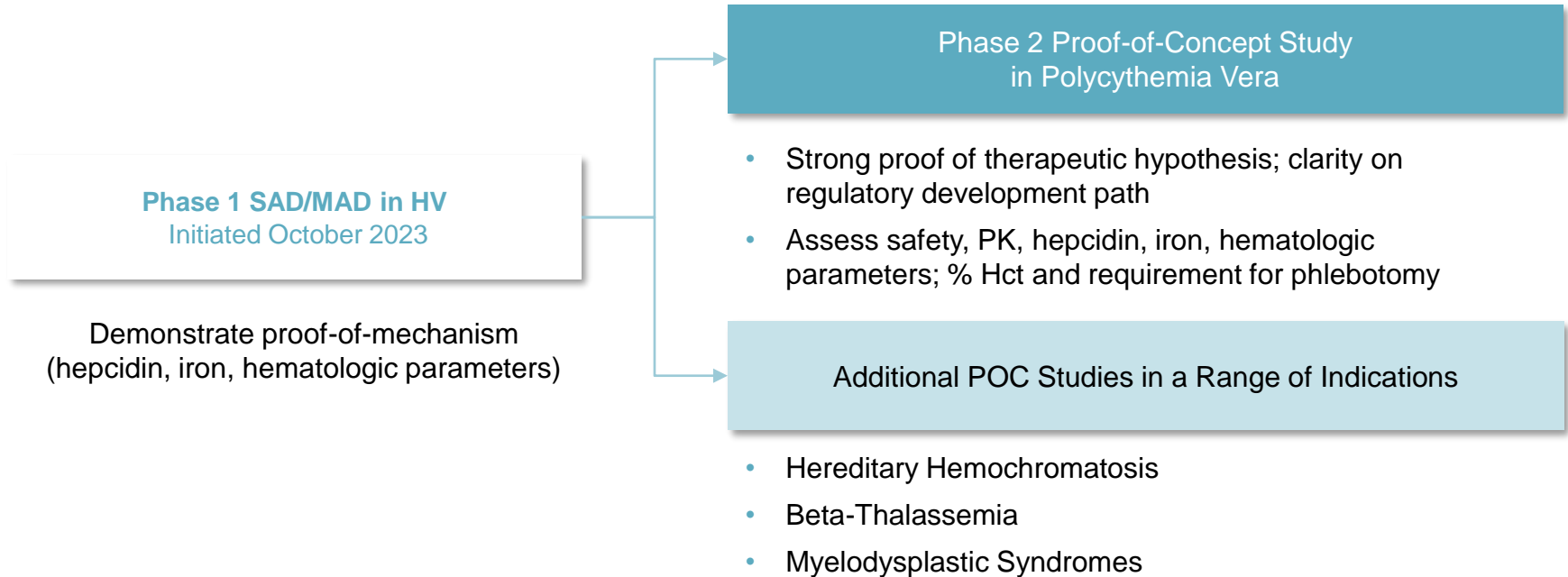


↓ RBC Production



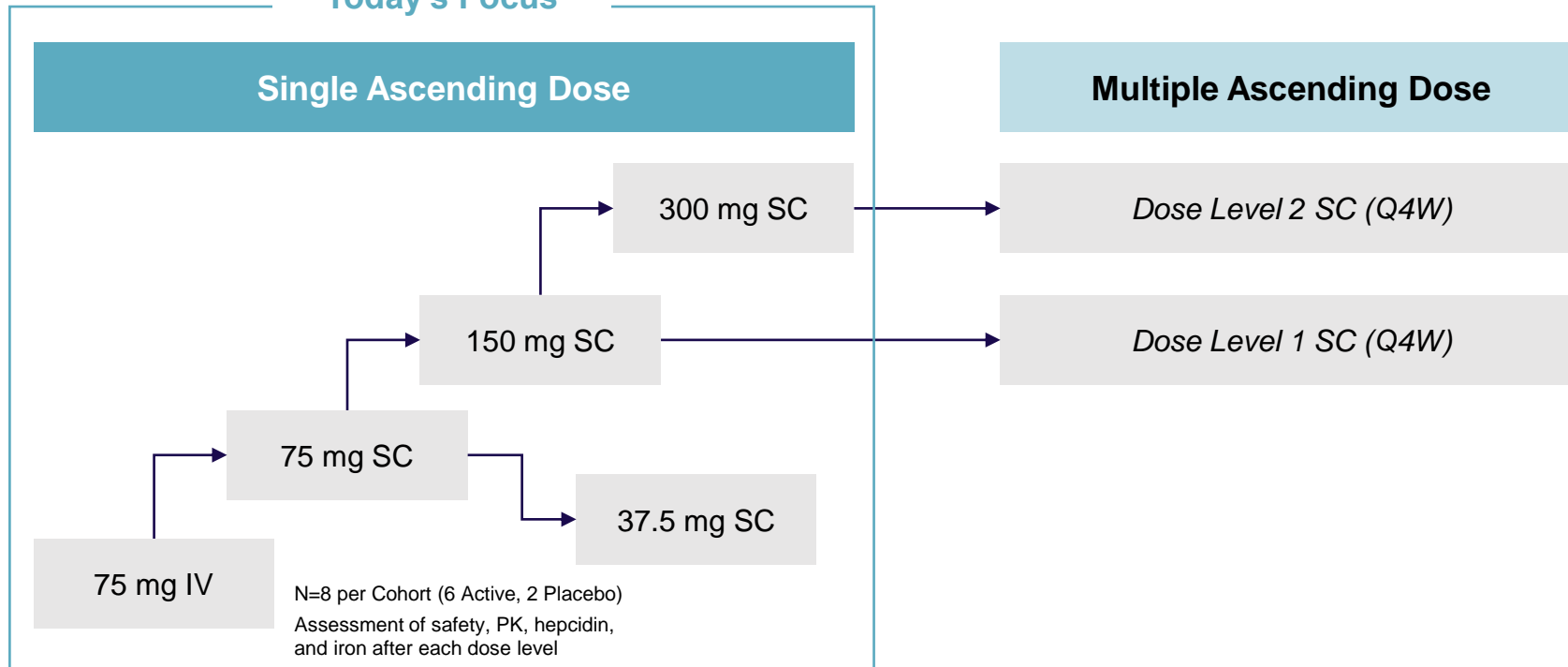
DISC-3405 Development Plans

Phase 1 in healthy volunteers ongoing; aim to advance program into POC studies with focus on polycythemia vera



DISC-3405 Phase 1 Healthy Volunteers Study Overview

Today's Focus



Key Endpoints/Measures: Iron, hepcidin, and other hematologic parameters, safety/tolerability

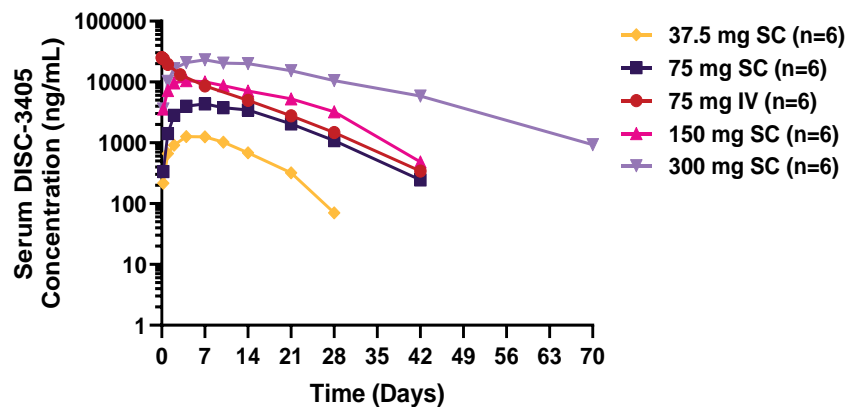
DISC-3405 Phase 1 Healthy Volunteer SAD: Baseline and Demographics

Characteristic	Placebo n = 10	37.5 mg SC n = 6	75 mg IV n = 6	75 mg SC n = 6	150 mg SC n = 6	300 mg SC n = 6
Age, years	48.6 (39-62)	52.7 (42-64)	36.8 (23, 49)	57.3 (49, 61)	44.0 (25, 57)	34.0 (22, 38)
Gender, Female, n (%)	2 (20)	5 (83.3)	3 (50.0)	4 (66.7)	2 (33.3)	0 (0)
Hepcidin, ng/mL	14.1 (5.2, 28.8)	41.7 (6.1, 177.2)	19.4 (2.0, 36.6)	32.6 (7.2, 69.8)	15.2 (8.7, 20.2)	18.7 (8.6, 45.0)
Serum Iron, ug/dL	97.2 (50, 180)	88.7 (43, 127)	99.2 (74, 127)	95.7 (67, 137)	85.7 (43, 138)	106.2 (54, 135)
Hemoglobin, g/dL	14.9 (13.1, 16.0)	13.2 (10.7, 17.7)	13.8 (12.1, 15.6)	13.8 (12.7, 16.0)	14.2 (13.0, 14.9)	15.4 (14.4, 16.7)
Hematocrit, %	43.6 (38.9, 47.1)	39.7 (34.3, 50.2)	41.5 (37.1, 45.5)	41.0 (38.7, 45.0)	42.3 (39.4, 46.2)	45.2 (42.3, 48.2)
RBC, 10 ¹² /L	4.9 (4.2, 5.8)	4.5 (3.9, 5.7)	4.6 (3.8, 5.2)	4.5 (4.2, 5.0)	4.7 (3.9, 5.1)	5.1 (4.8, 5.8)

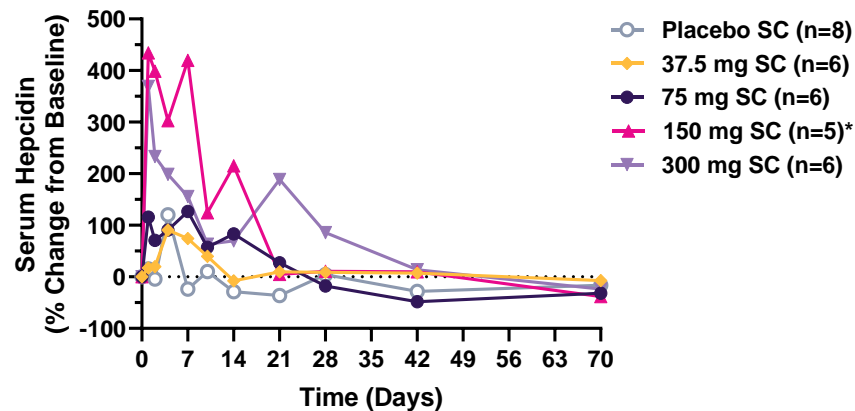
Initial DISC-3405 HV Data: PK and Hepcidin

- ⊗ Dose-dependent PK profiles
- ⊗ DISC-3405 demonstrated dose-related hepcidin increases

Pharmacokinetics



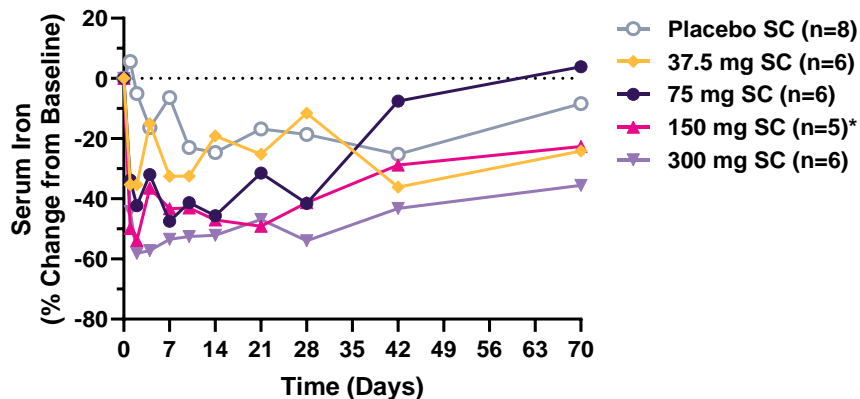
Mean Change from Baseline in Serum Hepcidin



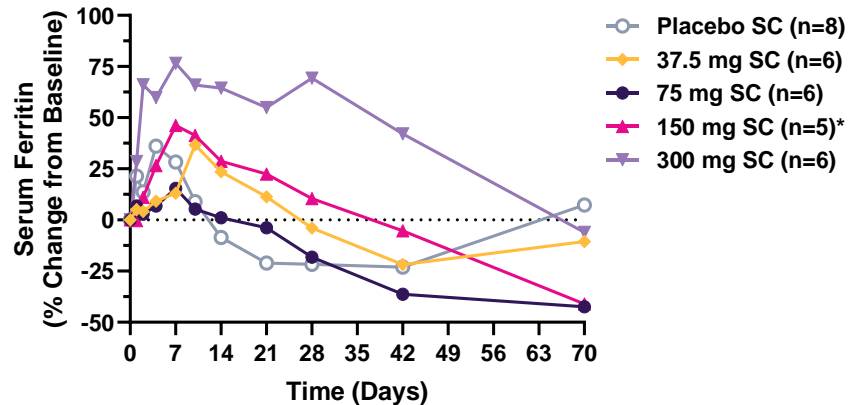
Initial DISC-3405 HV Data: Iron Parameters

- Mean serum iron reduction of more than 50% from baseline was achieved for both 150- and 300-mg doses
- Serum iron reductions were sustained for at least 4 weeks, supportive of monthly SC dosing

Mean Change from Baseline in Serum Iron

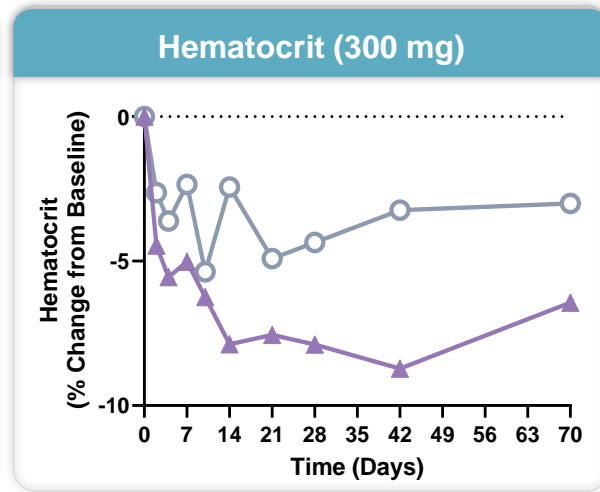
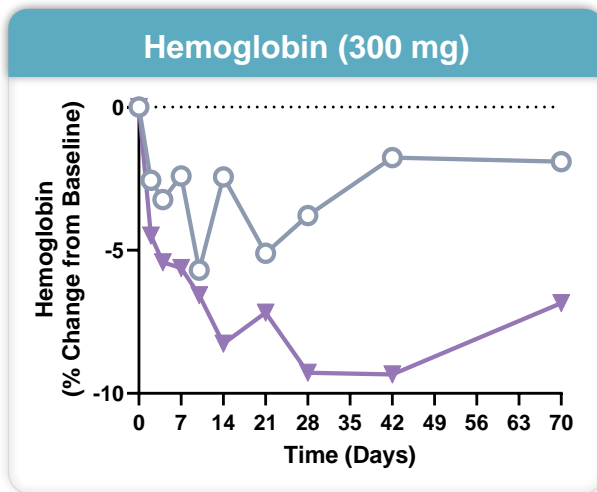
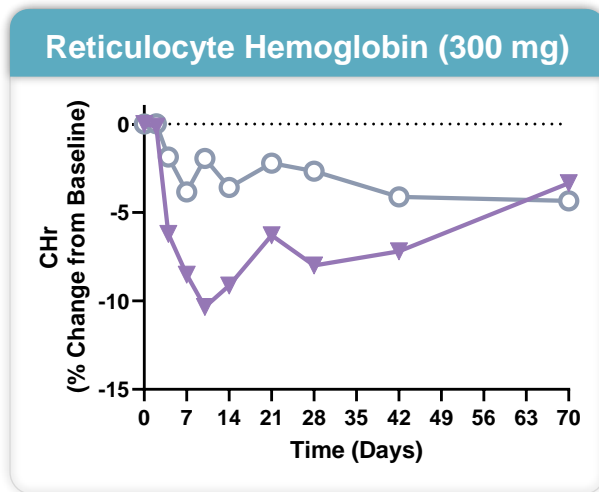


Mean Change from Baseline in Serum Ferritin



Initial DISC-3405 HV Data: Hematologic Response

- A single 300-mg dose of DISC-3405 demonstrated meaningful reductions in hematologic parameters (reticulocyte hemoglobin, hemoglobin, and hematocrit)



➤ 300 mg SC (n=6) ○ Placebo SC (n=8)

Initial DISC-3405 HV Data: Safety

- Generally well tolerated at all evaluated dose levels; no serious AEs, > Grade 2 AEs, or AEs leading to study withdrawal were reported

Adverse Event	Placebo n = 10	37.5 mg SC n = 6	75 mg IV n = 6	75 mg SC n = 6	150 mg SC n = 6	300 mg SC n = 6
Sore Throat	0	0	1	0	0	0
Nausea	0	1	0	1	0	0
Headache	1	1*	0	0	0	0
Cough	0	0	0	0	1	0
Rhinorrhea	0	0	0	0	1	0
Lightheadedness	0	0	0	1	0	0
Increased ALT	0	0	0	0	1*	0
Increased AST	0	0	0	0	1*	0

Summary of Phase 1 Healthy Volunteer SAD Data

- Single-dose SC administration of DISC-3405 demonstrated dose-dependent increases in hepcidin and corresponding reductions in serum iron levels across all dose levels
- >50% reductions in mean serum iron were observed in patients that received 150 mg and 300 mg doses
- PK/PD profile is supportive of monthly subcutaneous dosing in polycythemia vera and iron overload conditions
- DISC-3405 was well tolerated
- **Next Steps:** Phase 1 multiple-ascending dose (MAD) data expected by EOY; initiation of a Phase 2 study in PV expected in 1H 2025

Disc Continues Strong Growth Trajectory Towards Becoming a Leading Hematology Company

Significant Accomplishments in 1H 2024

Bitopertin

Positive data across two Phase 2 studies

DISC-0974

Updated positive data in anemia of MF

DISC-3405

Initial positive SAD healthy volunteer data

Important Catalysts in 2H 2024-2025

- EPP Phase 3 Study pending regulatory feedback
- POC in DBA
- Additional POC data in MF and CKD anemia
- Preclinical efforts on additional indications
- MAD healthy volunteer data in
- Polycythemia vera as first indication

Supported by a strong cash position with runway well into 2027

Thank You

