2023 ASH Management Call

Clinical Data Updates: Bitopertin and DISC-0974

December 11, 2023



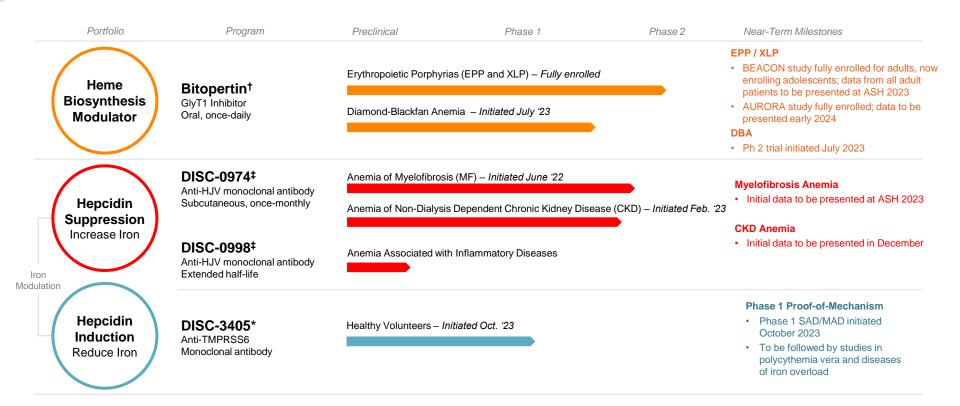
Disclaimer and FLS

This presentation includes "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. These forward-looking statements include express or implied statements relating to Disc's management team's expectations, hopes, beliefs, intentions or strategies regarding Disc's expectations with respect to its AURORA Phase 2 and BEACON Phase 2 clinical studies of bitopertin and the results thereof, its Phase 1b/2 clinical studies of DISC-0974 in patients with MF and NDD-CKD patients with anemia, its Phase 1 clinical study of DISC-3405 in healthy volunteers; projected timelines for the initiation and completion of its clinical trials, anticipated timing of release of data, and other clinical activities; Disc's business plans and objectives; Disc's analysis of market potential for patients with EPP; and Disc's beliefs about operating expenses and that it will have capital to fund Disc well into 2026. In addition, any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. The words "anticipate," "contemplate," "continue," "could," "estimate," "expect," "intends," "may," "might," "plan," "possible," "potential," "predict," "project," "should," "suggest," "will," "would" and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. 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. Disc may not actually achieve the plans, intentions or expectations disclosed in these forward-looking statements, and investors should not place undue reliance on these forward-looking statements. These forward-looking statements involve a number of risks, uncertainties (some of which are beyond Disc's control) or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to: the adequacy of Disc's capital to support its future operations and its ability to successfully initiate and complete clinical trials; the nature, strategy and focus of Disc; the difficulty in predicting the time and cost of development of Disc's product candidates; Disc's plans to research, develop and commercialize its current and future product candidates; the timing of initiation of Disc's planned preclinical studies and clinical trials; the timing of the availability of data from Disc's clinical trials; Disc's ability to identify additional product candidates with significant commercial potential and to expand its pipeline in hematological diseases; the timing and anticipated results of Disc's preclinical studies and clinical trials and the risk that the results of Disc's preclinical studies and clinical trials may not be predictive of future results in connection with future studies or clinical trials and may not support further development and marketing approval; the other risks and uncertainties described in our Annual Report on Form 10-K for the year ended December 31, 2022, Quarterly Reports on Form 10-Q for the guarters ended March 31, 2023, June 30, 2023 and September 30, 2023, and other documents filed by Disc from time to time with the Securities and Exchange Commission. Any forward-looking statement speaks only as of the date on which it was made. None of Disc, nor its affiliates, advisors or representatives, undertake any obligation to publicly update or revise any forward-looking statement, whether as result of new information, future events or otherwise, except as required by law.



Disc's Hematology-Focused Pipeline

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







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





Agenda

Introduction and Data Summary

John Quisel, JD, PhD, Chief Executive Officer

Bitopertin in EPP

- Updated BEACON Data
 Bruce Wang, MD, Professor of Gastroenterology, University of California San Francisco
 Will Savage, MD, PhD, Chief Medical Officer
- EPP Commercial Opportunity Jonathan Yu, Chief Business Officer



DISC-0974

- Initial Data in Anemia of Myelofibrosis Will Savage, MD, PhD, Chief Medical Officer
- Initial Data in NDD-CKD and Anemia Will Savage, MD, PhD, Chief Medical Officer

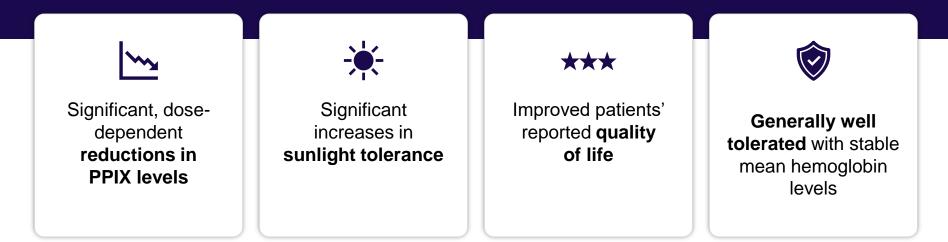
Closing Remarks

John Quisel, JD, PhD, Chief Executive Officer

Q&A Session



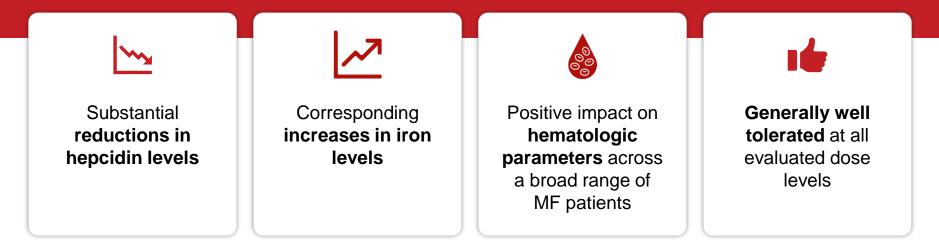
Data presented at ASH established proof of concept and demonstrated functional benefit for EPP patients. Key findings:





DISC-0974: Summary of Initial Data from Phase 1b Studies in MF and CKD

Initial data from both Phase 1b studies in MF and CKD demonstrated proof of concept and improvement in anemia. Key findings:





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02

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Q&A Session



Bruce Wang, MD

Professor at UCSF

Principal Investigator in US Porphyrias Consortium

Disclosures

- Alnylam (consultant, investigator in clinical trial, grant funding)
- Disc Medicine (consultant, investigator in clinical trial)
- Mitsubishi-Tanabe (consultant, investigator in clinical trial, grant funding)
- Recordati Rare Diseases (consultant)



In EPP, a genetic mutation leads to the buildup of protoporphyrin IX (PPIX)

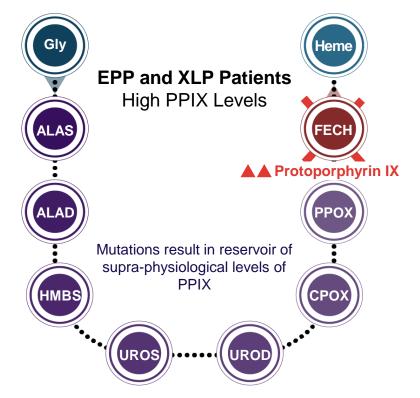
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In most patients, EPP is caused by deficient ferrochelatase activity due to mutations of the FECH gene

The deficiency causes a failure to convert protoporphyrin IX (PPIX) into heme in the terminal step of heme synthesis

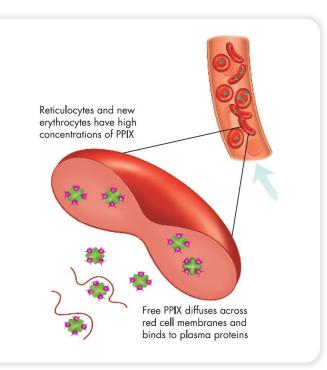
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PPIX substantially accumulates in erythrocytes, plasma, skin, and liver



PPIX is a highly toxic and photoreactive metabolite

- > PPIX molecule absorbs light radiation
- Absorption increases energy content and enables excess energy to be transferred to oxygen, resulting in reactive oxygen species (ROS)
- These oxygen species can injure tissue by membrane lipid peroxidation, complement activation, and mast cell degranulation
- PPIX is also highly toxic independent of the photosensitizing reactions, particularly impacting the liver



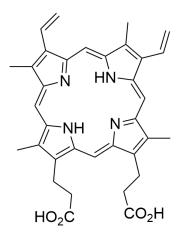
Accumulation of this toxic metabolite can cause a variety of symptoms

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

Of these symptoms, the primary manifestation is photosensitivity that can result in debilitating pain

- O Upon exposure to the sun, EPP patients experience disabling pain attacks that can last for days
- These attacks cause burning sensations, swelling, itching, and erythema, and can lead to chronic skin lesions and scarring



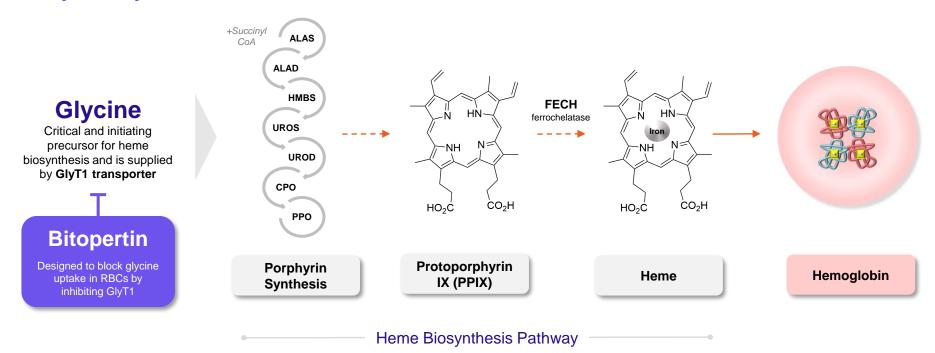


As a result, EPP patients take extreme measures to avoid sunlight

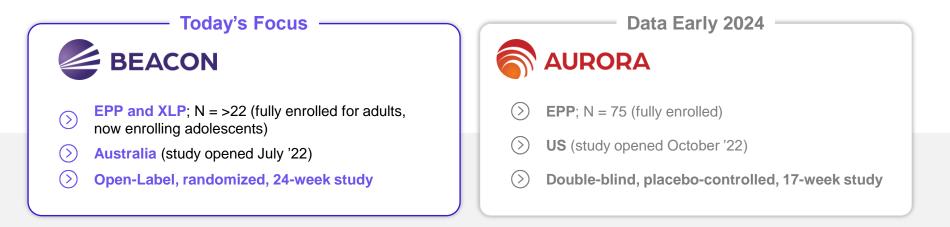
- EPP patients spend most of their time indoors, avoiding the light, causing them to miss many daily activities
- > When patients do have to go outside, they may **completely cover their skin** to avoid sun exposure, wearing long sleeves, hats, and gloves even in summer

Bitopertin: Investigational Oral, Selective GlyT1 Inhibitor

Bitopertin modulates heme biosynthesis by blocking uptake of glycine in erythrocytes



EPP Phase 2 Development Program Ongoing BEACON and AURORA Trials—Enrollment Complete



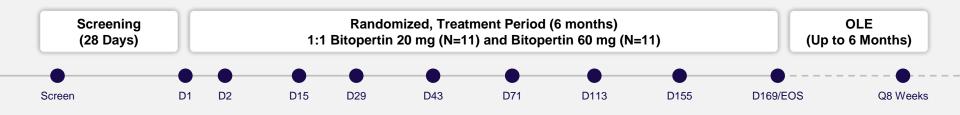
Trial Endpoints:

Changes in blood PPIX levels, light tolerance, time to prodromal symptom (TTPS), safety, tolerability, and PK



*Time to prodromal symptom = the time until a participant experiences an early warning signal of a phototoxic attack measured through a weekly sunlight challenge. If a participant is unable to elicit a prodrome during a sunlight challenge the amount of time the participant chose to remain in light is recorded. D = day; EOS = end of study; OLE = open-label extension; PK = pharmacokinetics

BEACON Trial Overview Enrollment data as of 20 Oct 2023



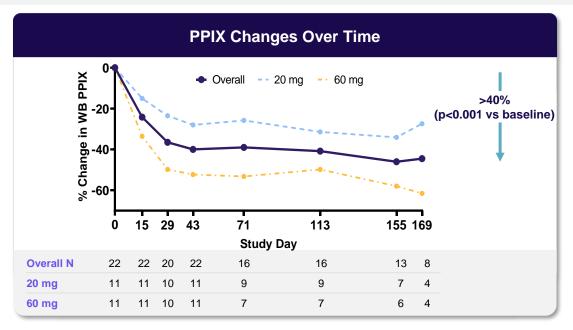
	Bitopertin 20 mg	Bitopertin 60 mg	Total (n=22)	
Enrolled	11	11	22	
Completed Day 43	11	11	22	
Completed Day 113	9	8	17	
Completed Treatment Period (Day 169)	7	7	14	

Study population is ~64% female with an average age of 44 years (range 20-73)



Updated BEACON Data: % Change in Whole-Blood PPIX

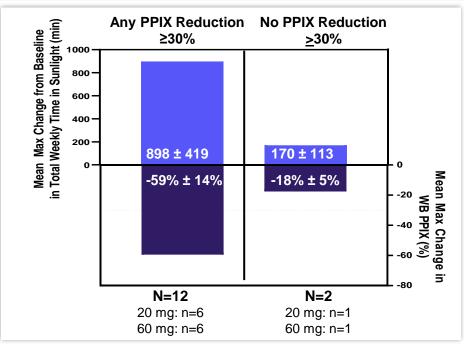
- Bitopertin significantly reduced whole-blood (WB) metal-free PPIX levels by >40%
- Dose-dependent reductions were observed across broad range of baseline whole-blood PPIX levels (144-3,410 µg/dL)





Updated BEACON Data: PPIX and Light Tolerance

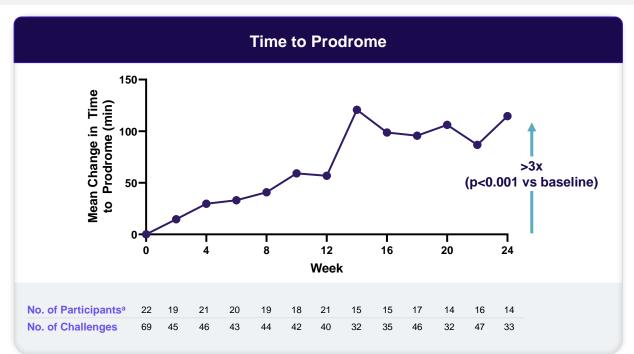
- Improvements in light tolerance were observed in every patients
- \bigcirc Greatest improvements in light tolerance seen in participants with any PPIX reduction ≥30%





Updated BEACON Data: Time to Prodrome

 \odot Improvements in light tolerance during sunlight-exposure challenges were significant (>3x) and increased with time

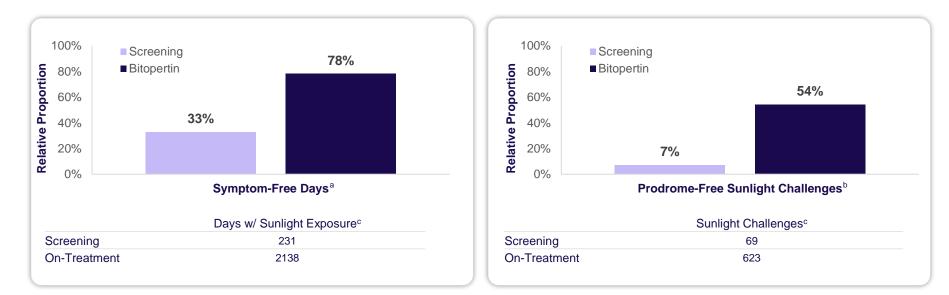




^a The number of subjects with at least 1 sunlight-exposure challenge during a 2-week period. Time to prodrome data from weekly sunlight-exposure challenges were averaged over a 2-week period, including cumulative time in sunlight challenges where the participant did not report a prodrome, and were analyzed using MMRM for both 20 mg and 60 mg bitopertin dose groups combined.

Updated BEACON Data: Light Tolerance Days without Symptoms or Prodromes

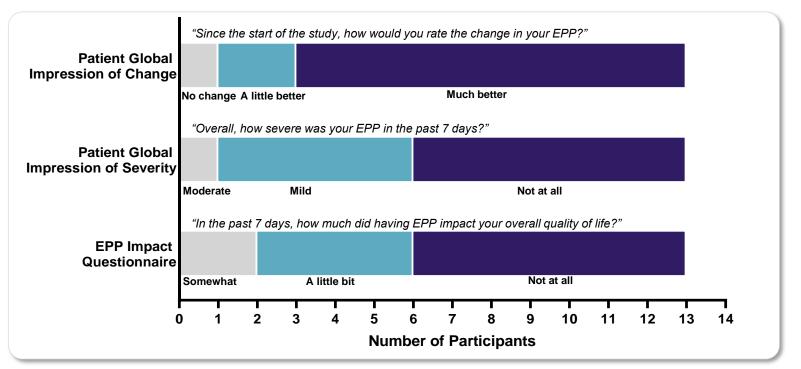
- 92% reduction in patient-reported full phototoxic reactions^a
- S An increase in the proportion of total symptom-free days (no prodrome / early warning symptoms or full phototoxic reactions) with sunlight exposure was observed





Updated BEACON Data: Measures of Quality of Life

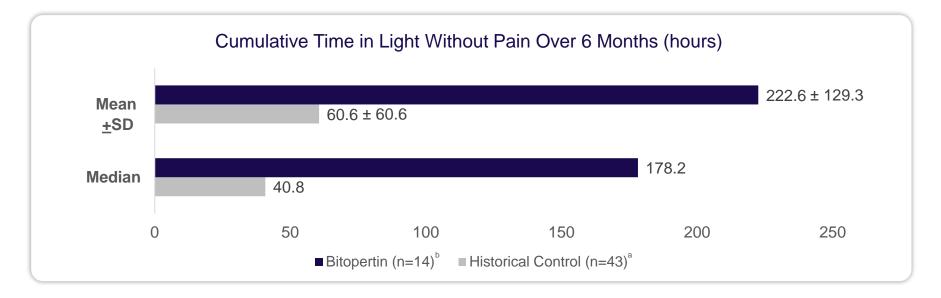
> Nearly all participants reported improvements in multiple quality-of-life measures at end of study





Updated BEACON Data: Precedented Pivotal Endpoint Cumulative Time in Light on Days without Pain

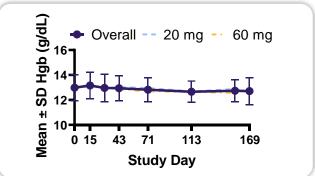
- Cumulative total time in light observed over 6-month treatment period with bitopertin represents
 >3x increase relative to historical control
- ◎ Improvements in average daily light tolerance with bitopertin increased with time





Updated BEACON Data: Safety and Tolerability

- No serious adverse events
- Stable mean Hgb levels; no anemia AEs reported
- Favorable safety profile consistent with prior studies enrolling >4,000 participants
- Safety profile supports enrollment of adolescents



	Bitopertin 20 mg (n=11)	Bitopertin 60 mg (n=11)	Total (n=22)
Subjects with any TEAE	9 (82%)	9 (82%)	18 (82%)
TEAEs leading to discontinuation	1 (9%) ^a	0	1 (5%)
TEAEs reported in >1 subject			
Dizziness	3 (27%)	4 (36%)	7 (32%)
Lightheadedness	3 (27%)	2 (18%)	5 (23%)
Headache	3 (27%)	1 (9%)	4 (18%)
Nausea	1 (9%)	2 (18%)	3 (14%)



Key Takeaways from Updated BEACON Data





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02

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DISC-0974

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Closing Remarks

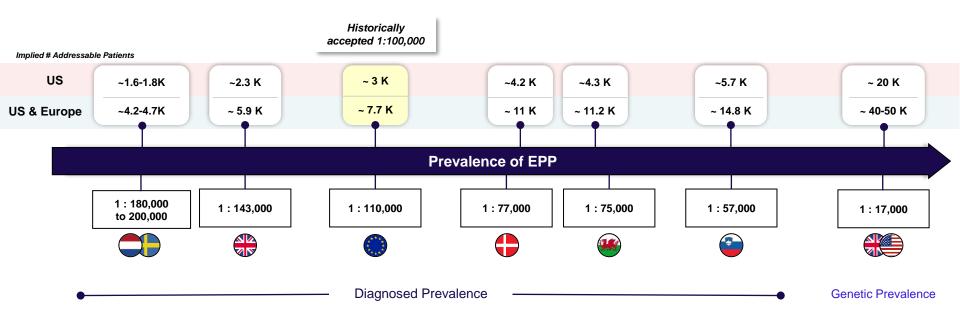
John Quisel, JD, PhD, Chief Executive Officer

Q&A Session



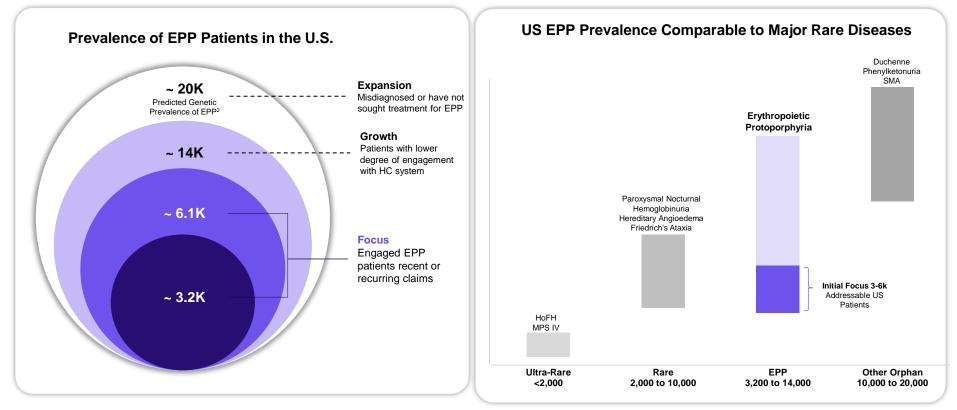
Historical EPP estimates likely underrepresent prevalence

Based on methodology reported in literature and patient journey



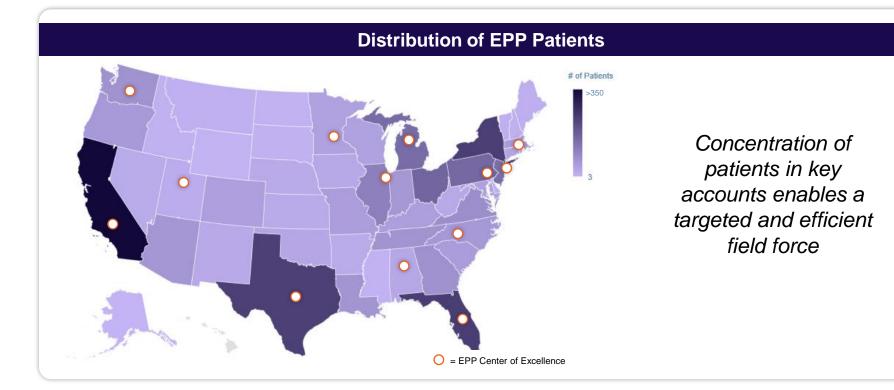


EPP Prevalence: Est. 3-6K addressable patients in the US Based on analysis of ICD-10 codes in claims data



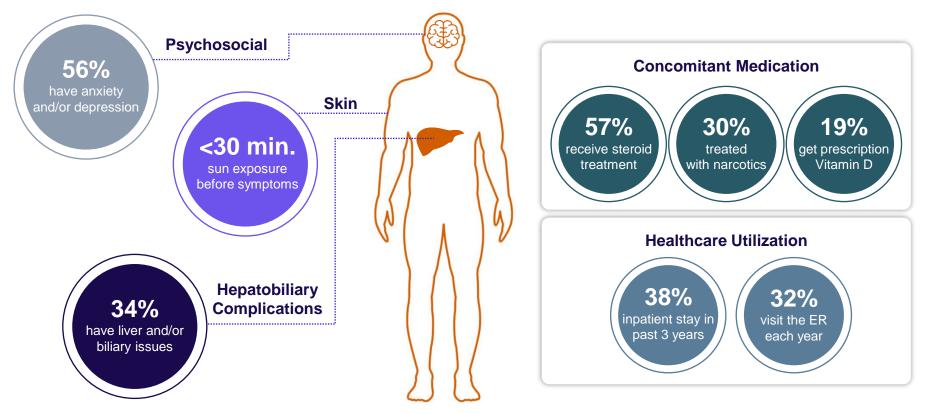


EPP patients are identifiable and can be addressed through a highly efficient operating model





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





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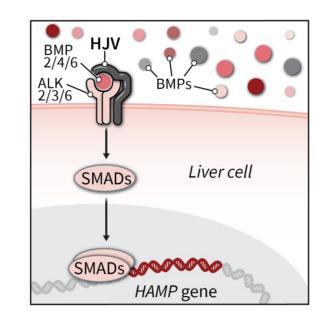
DISC-0974: Novel Anti-HJV mAb to Suppress Hepcidin Designed to enhance iron availability to address a wide range of hematologic disorders





Targeting HJV to Suppress Hepcidin

Critical and specific target for hepcidin expression

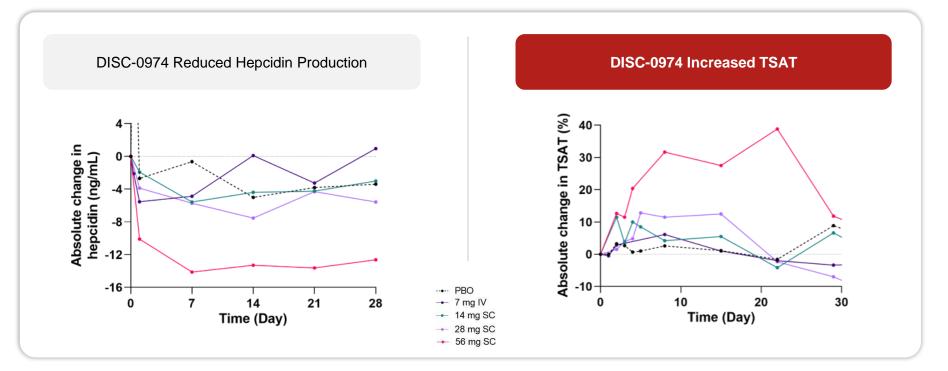


Inhibiting Hemojuvelin (HJV) Prevents Hepcidin Expression and Increases Iron

- 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

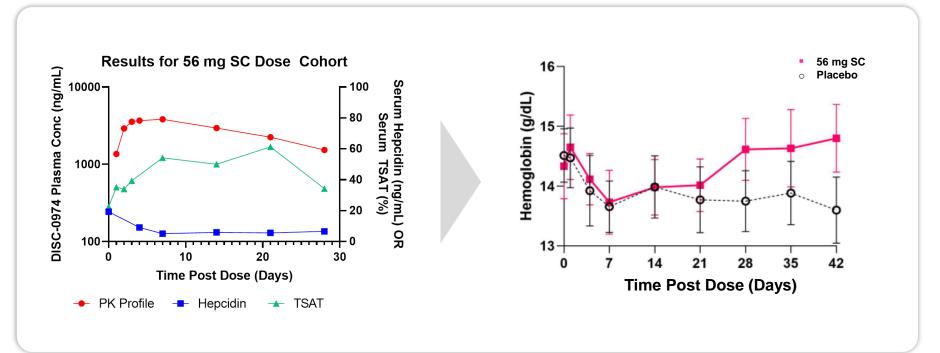


DISC-0974 Phase 1 SAD Healthy Volunteer Data Dosing of DISC-0974 demonstrated a reduction of hepcidin and iron mobilization





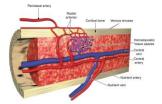
DISC-0974 Phase 1 Healthy Volunteer SAD Data (cont.) Top dose (56 mg) pharmacodynamic activity improved key clinical parameters (> 1 g/dL Hgb)





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

- 16,000 to 18,500 patients (US)
- ~87% are anemic; severe and requires transfusion

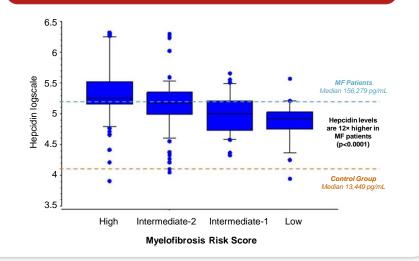
Etiology of Anemia

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

Onmet Medical Needs

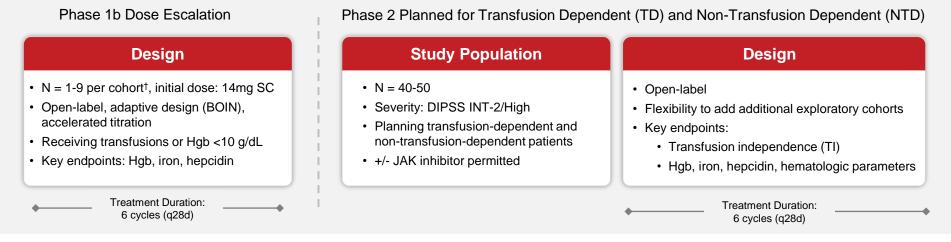
- · Severe and difficult to treat; high transfusion burden
- No approved or effective anemia therapy
- · Anemia limits optimal JAK inhibitor treatment

Hepcidin Levels are Elevated in MF ~ 12× higher than control and associated with severity of anemia and transfusion burden





DISC-0974 MF Anemia Trial Overview Data as of October 20, 2023



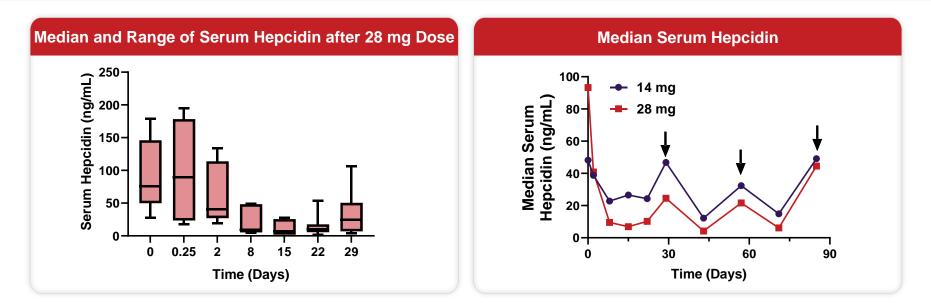
	DISC-0974 14 mg	DISC-0974 28 mg	DISC-0974 50 mg	Total
Enrolled	1	7	3	11
Concomitant JAK use	0	4 (57.1%)	0	4
Transfusion Dependent*	0	2 (28.6%)	0	2
Median Time Since Diagnosis (yrs)	1	6 (0-18)	2 (0-14)	-

disc)

*Defined as an RBC transfusion frequency of ≥6 units packed RBCs (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; †Note: In Part 1, expect one patient per cohort until iron mechanism is engaged; BOIN = Bayesian Optimal Interval; DIPSS = Dynamic International Prognostic Scoring System; Hgb = hemoglobin; INT = intermediate; JAK = Janus kinase; q28d = every 28 days; SC = subcutaneous; DIPSS = Dynamic International Prognostic Scoring System

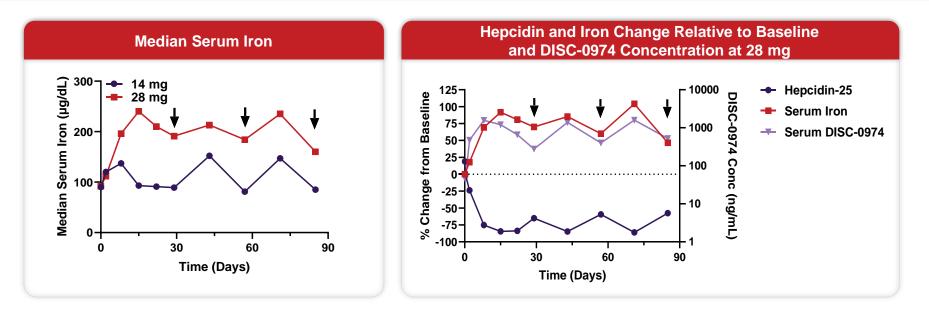
Initial DISC-0974 Anemia of MF Data: Hepcidin

- > DISC-0974 decreased hepcidin in a dose-dependent manner
- > Hepcidin decreases were consistent across all treated patients



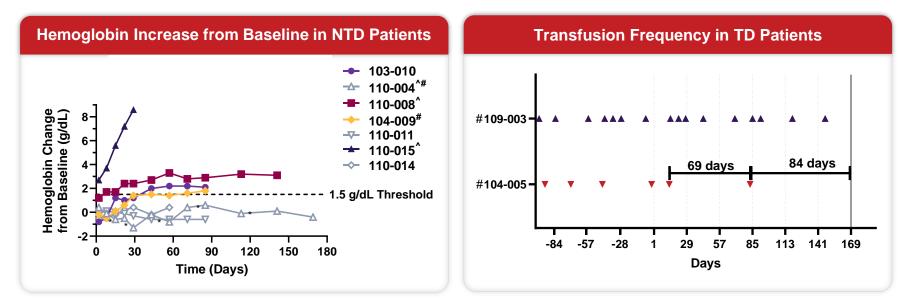
Initial DISC-0974 Anemia of MF Data: Serum Iron

- Serum iron increased in a dose-dependent manner
- > Dosing at 28 mg led to a >75% decrease in serum hepcidin and a >75% increase in serum iron



Initial DISC-0974 Anemia of MF Data: Hematologic Response

- Solution Seven evaluable NTD subjects (57%) had ≥1.5 g/dL hemoglobin increase from baseline; effect was seen regardless of concomitant JAK inhibitor use
- One of the two transfusion-dependent subjects receiving 28 mg achieved transfusion independence¹





'Gale criteria (Leukemia Research 35 (2011)); Five NTD subjects received 28 mg (103-010, 110-004, 110-004, 110-001, 104-009, 110-011) and two subjects received 50 mg (110-014, 110-015) of DISC-0974 for more than 28 days as of the data cut; 'Indicates transfusion. ^ Indicates transfusion during screening. # Indicates concomitant JAK inhibitor use. NTD = non-transfusion dependent; TD = transfusion dependent

Initial DISC-0974 Anemia of MF Data: Safety

- O Generally well tolerated at all evaluated dose levels
- Majority of AEs deemed not related to DISC-0974

AEs Occurring in <u>></u> 2 Subjects	14 mg DISC-0974 (N=1)		28 mg DISC-0974 (N=7)		50 mg DISC-0974 (N=3)	
	Any Grade	Grade 3	Any Grade	Grade 3	Any Grade	Grade 3
Subjects with event (n)	0	0	6	3	2	1
Fatigue	0	0	3	0	0	0
Anemia	0	0	4	2	1	1
Diarrhea	0	0	2	0	1	0
Nausea	0	0	2	0	0	0



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04

Closing Remarks John Quisel, JD, PhD, Chief Executive Officer

Q&A Session

Hepcidin is a Key Driver of CKD Anemia

Anemia is a significant issue in CKD, with most patients currently untreated

Anemia of CKD (NDD and DD)



5-6M CKD Patients with Anemia (US Only)

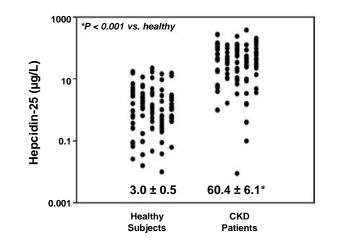
- ~17 to 50% of CKD patients are anemic; increases w/ stage
- Nearly all anemic patients are non-dialysis dependent (NDD)

- High hepcidin from inflammation
- · Poor renal clearance leads to accumulation of hepcidin

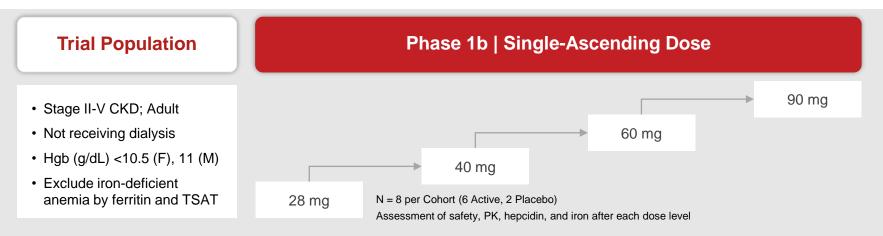
Onmet Medical Needs

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

Hepcidin Levels Elevated in CKD Patients ~20× higher than healthy subjects and increases with disease severity



DISC-0974 NDD-CKD Anemia Trial Overview Data as of October 20, 2023



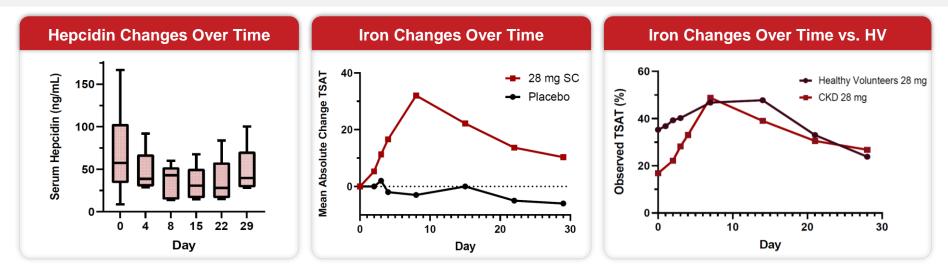
Key Endpoints/Measures: Change in hemoglobin; iron, hepcidin, and other hematologic parameters, safety / tolerability

	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)



Initial DISC-0974 Anemia of CKD Data: Hepcidin and Iron First Cohort: 28 mg SC

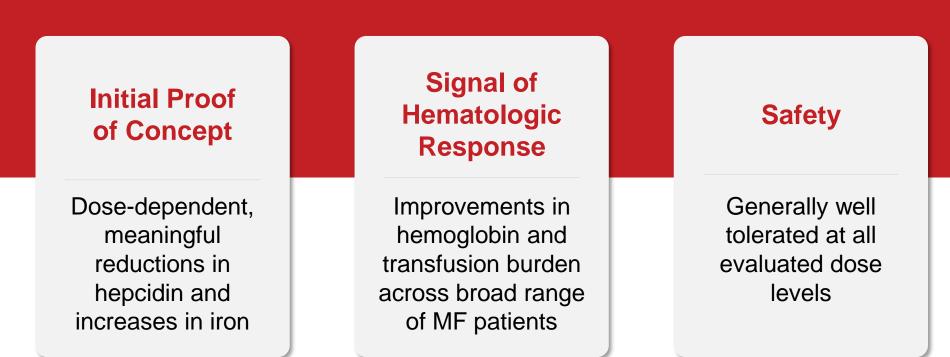
- > Meaningful reduction in serum hepcidin with corresponding increase in serum iron
- Similar PK/PD relationship as seen in healthy volunteers



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*



Key Takeaways from Initial DISC-0974 Data





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Q&A Session



Summary of Data

Bitopertin Heme Synthesis Modulator

- Consistent, significant reductions in PPIX; >40% on average
- Significant improvement in sunlight tolerance across multiple measures:
 - >3x increase in time to prodrome
 - >3x increase in cumulative time in light vs. historical controls
 - Increase in symptom-free days
- · Improvements in quality of life
- Generally well tolerated

DISC-0974 Hepcidin Suppression

Phase 1b/2 in Myelofibrosis and Anemia

- Initial data demonstrated:
 - Consistent decrease in serum hepcidin (>75%) and increase in iron
 - Hematologic responses in a broad range of pts

Phase 1b/2 in NDD-CKD and Anemia

- Initial data from the 28 mg cohort demonstrated:
 - Meaningful reductions in hepcidin and increase in iron, similar PK/PD as HVOL
- Generally well tolerated



Disc Continues Strong Growth Trajectory Towards Becoming a Leading Hematology Company

	Significant Accomplishments in 2023	Strong Series of Catalysts in 2024		
Bitopertin	Positive initial Phase 2 data	 AURORA readout early 2024 Regulatory interactions & Phase 3 prep POC in DBA 		
DISC-0974	Initial POC in anemia of MF and CKD	 Additional POC data in MF and CKD anemia Preclinical efforts on additional indications 		
DISC-3405	Initiation of Phase 1 study	 Initial healthy volunteer data in 2024 Polycythemia vera as first indication 		

Supported by a strong cash position with runway well into 2026-



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Closing Remarks

John Quisel, JD, PhD, Chief Executive Officer



Q&A Session



Q&A