UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 3, 2024

Keros Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**001-39264**	**81-1173868**
(state or other jurisdiction of incorporation)	**(Commission File Number)**	**(I.R.S. Employer Identification No.)**

1050 Waltham Street, Suite 302
Lexington, Massachusetts **02421**
(Address of principal executive offices) **(Zip Code)**

Registrant's telephone number, including area code: (617) 314-6297

Not applicable

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, $0.0001 par value per share	**KROS**	**The Nasdaq Stock Market LLC**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 7.01 Regulation FD Disclosure.

On January 3, 2024, Keros Therapeutics, Inc. (the "Company") updated its corporate presentation for use in meetings with investors, analysts and others. The presentation is available through the Company's website and a copy is attached as Exhibit 99.1 to this Current Report on Form 8-K.

The information under Item 7.01 in this Current Report on Form 8-K, including Exhibit 99.1 attached hereto, is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act") or otherwise subject to the liabilities of that section. Such information and the accompanying Exhibit 99.1 are not incorporated by reference in any filing of the Company under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, regardless of any general incorporation language in such filing, except as shall be expressly set forth by specific reference in such filing.

Item 8.01 Other Events.

On January 3, 2024, the Company issued a press release announcing that it plans to develop KER-065, a novel ligand trap designed to bind to and inhibit TGF-ß ligands, including myostatin (GDF8) and activin A, for the treatment of obesity. The Company also announced that it commenced its randomized, double-blind, placebo-controlled, two-part Phase 1 clinical trial to evaluate single and multiple ascending doses of KER-065 in healthy volunteers. A copy of the press release is attached as Exhibit 99.2 to this Current Report on Form 8-K and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.
(d) Exhibits

Exhibit No.	Description
99.1	Corporate Presentation dated January 2024.
99.2	Press release dated January 3, 2024.
104	Cover Page Interactive Data File (the cover page XBRL tags are embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

KEROS THERAPEUTICS, INC.

By: /s/ Jasbir Seehra
Jasbir Seehra, Ph.D.
Chief Executive Officer

Dated: January 3, 2024


KEROS
THERAPEUTICS
Corporate Presentation
January 2024

Disclaimer

Statements contained in this presentation regarding matters that are not historical facts are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. Words such as "anticipates," "believes," "expects," "intends," "plans," "potential," "projects," "would" and "future" or similar expressions are intended to identify forward-looking statements. Examples of these forward-looking statements include statements concerning: Keros' expectations regarding its growth, strategy, progress and the design, objectives, expected results and timing of its preclinical studies and clinical trials for KER-050, KER-012 and KER-065, including its regulatory plans; the potential of Keros' proprietary discovery approach; and the potential of KER-065 to treat obesity without an associated loss of muscle and potential for frailty, both as a monotherapy and in combination with GLP-1 receptor agonists. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. These risks and uncertainties include, among others: Keros' limited operating history and historical losses; Keros' ability to raise additional funding to complete the development and any commercialization of its product candidates; Keros' dependence on the success of its product candidates, KER-050, KER-012 and KER-065; that Keros may be delayed in initiating, enrolling or completing any clinical trials; competition from third parties that are developing products for similar uses; Keros' ability to obtain, maintain and protect its intellectual property; and Keros' dependence on third parties in connection with manufacturing, clinical trials and preclinical studies.

These and other risks are described more fully in Keros' filings with the Securities and Exchange Commission ("SEC"), including the "Risk Factors" section of the Company's Quarterly Report on Form 10-Q, filed with the SEC on November 6, 2023, and its other documents subsequently filed with or furnished to the SEC. All forward-looking statements contained in this presentation speak only as of the date on which they were made. Except to the extent required by law, Keros undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they were made.

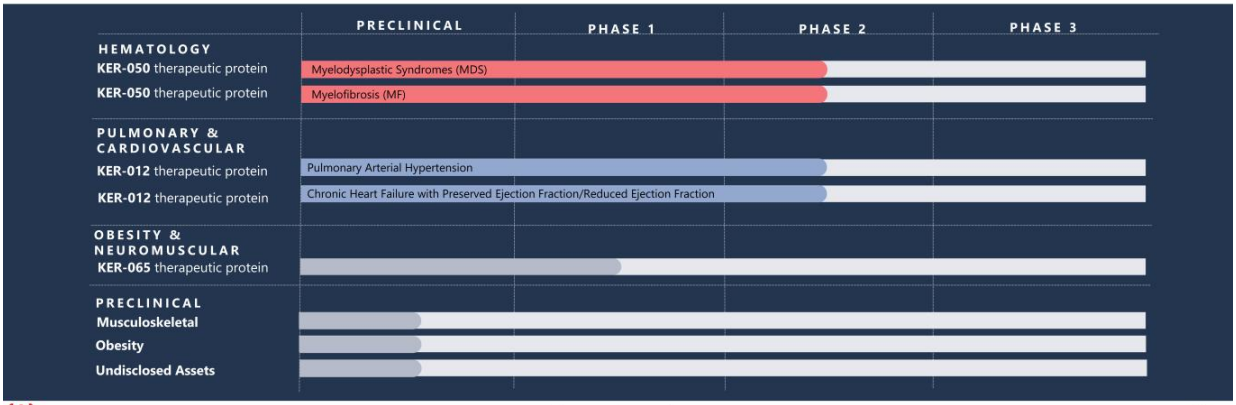
Certain information contained in this presentation relates to or is based on studies, publications, surveys and other data obtained from third-party sources and the Company's own internal estimates and research. While we believe these third-party sources to be reliable as of the date of this presentation, it has not independently verified, and makes no representation as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. Finally, while we believe our own internal research is reliable, such research has not been verified by any independent source.

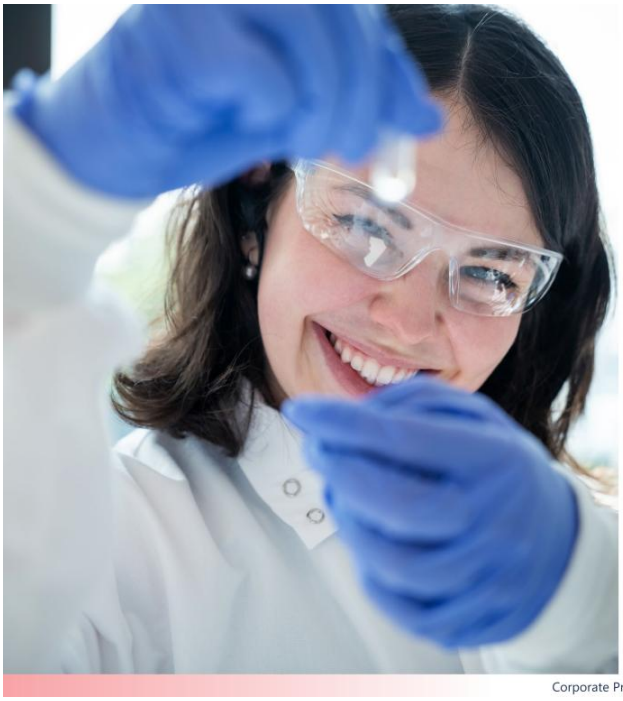
The trademarks included in this presentation are the property of the owners thereof and are used for reference purposes only.

Focused on Transforming the Lives of a Wide Range of Patients with Disorders Linked to Dysfunctional TGF-β Superfamily Signaling

Keros is a clinical-stage biopharmaceutical company
Developing potentially differentiated product candidates designed to alter transforming growth factor-beta (TGF-β) signaling and target pathways critical for the growth, repair and maintenance of a number of tissue and organ systems

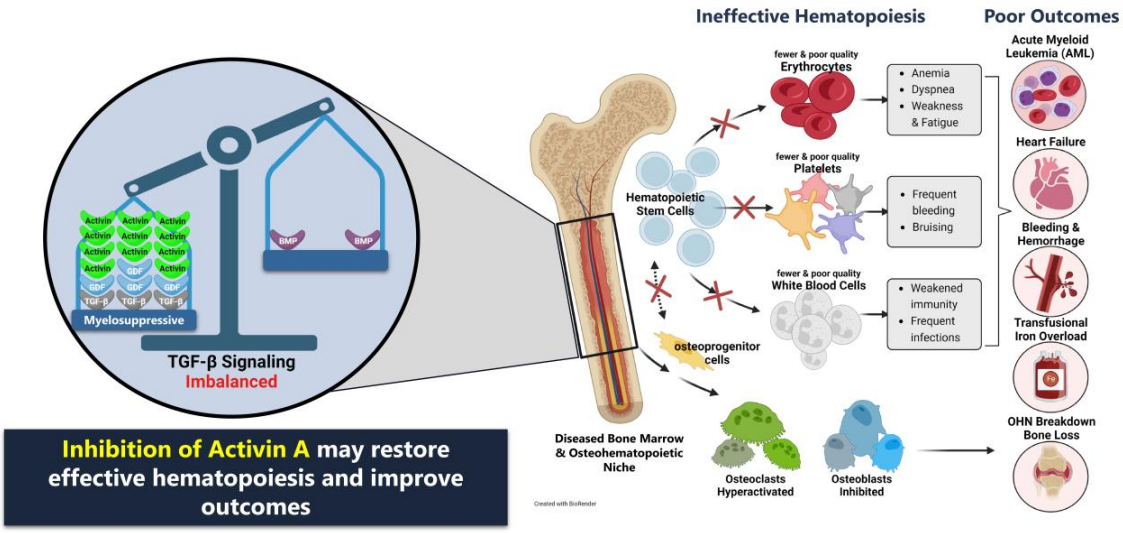
We believe our product candidates have the potential to unlock the full therapeutic benefits of modulating the TGF-β superfamily and provide disease-modifying benefit to patients





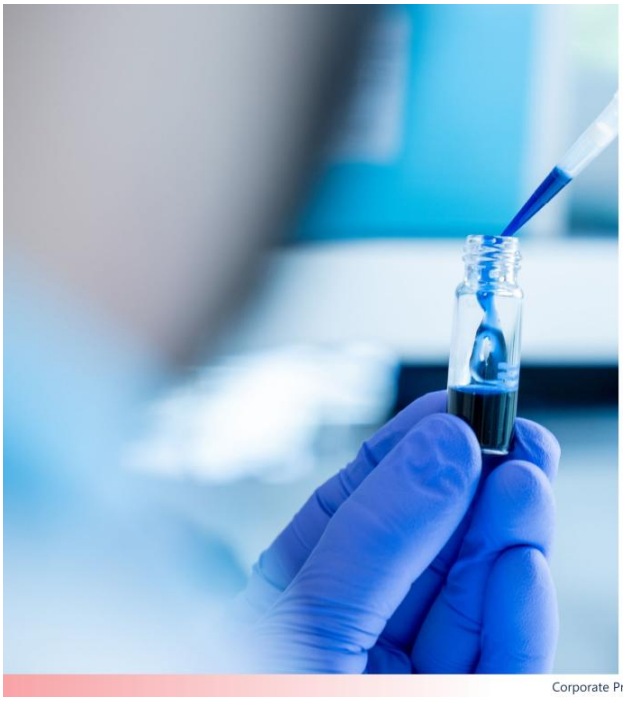
Hematology Franchise

Imbalanced TGF-β Signaling in Bone Marrow Results in Ineffective Hematopoiesis and Poor Outcomes in Both MDS and MF[1,2,3]



Inhibition of Activin A may restore effective hematopoiesis and improve outcomes

1. Verma A, et al. J Clin Inv 2020; 2. Portale F, et al., Haematologica. 2019, 3. Rambaldi B., et al, Ann Hematol. 2021
BMP = bone morphogenetic protein; GDF = growth differentiation factor



KER-050 (elritercept)

Investigational Treatment for Anemia and Thrombocytopenia in Patients with Myelodysplastic Syndromes

Ongoing Phase 2 Clinical Trial of KER-050 for the Treatment of Anemia in Patients with Very Low-, Low- or Intermediate-Risk Myelodysplastic Syndromes

Myelodysplastic Syndromes (MDS)

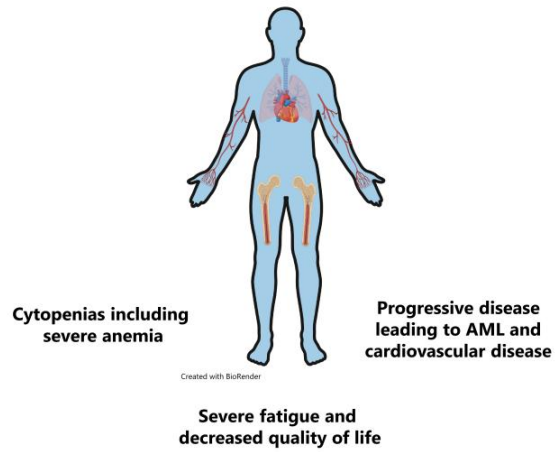
MDS
MDS is a collection of bone marrow disorders characterized by ineffective hematopoiesis and peripheral cytopenias.

Clinical Consequences
The clinical consequences of MDS include anemia, bleeding, iron overload, cardiovascular disease and progression to acute myeloid leukemia (AML).

Survival Ranges
Median survival ranges from approximately nine years for very low-risk patients to less than a year for high-risk patients.

Scope
In the United States, there are 60,000 to 170,000 patients living with MDS and 15,000 to 20,000 new cases of MDS reported each year.

Impact of MDS



Current Treatment Landscape for Treatment of Anemia in Lower-Risk MDS

Red Blood Cell (RBC) Transfusions

- RBC transfusions provide symptomatic relief of anemia
- Transfusion dependency is associated with iron overload, further exacerbating damage to the bone marrow and increasing risk of AML progression and cardiovascular disease
- Prolonged transfusion dependence is associated with shorter overall survival

Erythroid Stimulating Agents (ESAs)

- ESAs are currently first line treatment of choice but response is limited in patients with endogenous erythropoietin levels (>200 U/L) and high transfusion burden (>4 units of RBC/8 weeks)

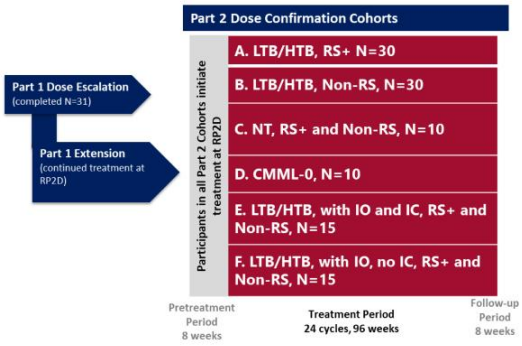
Erythroid Maturation Agent

- Reblozyl® approved in 1st and 2nd line MDS
- In second-line treatment, only 20% of high transfusion burden (HTB) patients achieved 8-week transfusion independence with Reblozyl® versus 4% with placebo[1]
- In second-line setting, a medical reviewer of luspatercept noted "patient reported outcome (PRO) data showed no improvement in quality of life for patients who received luspatercept or who responded to luspatercept."[2]

Unmet need remains for treatment that can address the multifaceted pathophysiology of MDS

1. Fenaix P, et al. New Eng J Med 2020; 382:140-151; 2. Lspatercept FDA review document Page 11 4/3/2020.

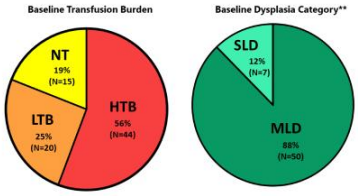
Ongoing Phase 2 Clinical Trial of KER-050 for the Treatment of Anemia in Patients with Very Low-, Low- or Intermediate-Risk MDS



Response data are presented for the modified intent to treat 24-week population ($mITT_{24}$) that includes RP2D participants with at least 24 weeks of KER-050 treatment or who have discontinued (n=60)

Baseline Demographics

Baseline Characteristic	RP2D (N=79)
Median age, years (range)	75 (53, 89)
Sex, male, n (%)	50 (63.3)
Hemoglobin, g/dL, median (range)	8.37 (3.7, 10.5)
RS+, n (%) Non-RS, n (%)	57 (72.2) 22 (27.8)
Prior ESA, n (%)	21 (26.6)
Median baseline EPO level, U/L (range)*	127.8 (1, 4000)
Thrombocytopenia, n (%) (platelets < 150 x 10^9/L)	20 (25)



Data are presented as of a data cutoff date of September 1, 2023.

*9 RP2D patients had missing baseline erythropoietin (EPO); **Excludes 22 RP2D participants with unknown dysplasia category

RP2D = Recommended Part 2 Dose of 3.75 mg/kg with the ability to titrate to 5 mg/kg once every four weeks; CMML: chronic myelomonocytic leukemia; high transfusion burden (HTB): ≥4 units of RBC/8 weeks for hemoglobin (Hgb) ≤9 g/dL; low transfusion burden (LTB): 1-3 units of RBC/8 weeks for Hgb ≤9 g/dL; non-transfused (NT): Hgb ≤10 g/dL; RS = ring sideroblasts.; IO = Iron Overload; IC = Iron Chelation, SLD = Single Lineage Dysplasia, MLD = Multi Lineage Dysplasia

KER-050 was Generally Well-tolerated

Most frequent TEAEs (≥ in 15% of patients) regardless of causality were:

- Dyspnea or diarrhea (18; 22.8% each)
- Fatigue (16; 20.3%)
- Nausea (15; 19.0%)
- Headache (12; 15.2%)

Most TEAEs were mild (Grade 1) to moderate (Grade 2)

3 treatment-related TESAEs of injection site reaction (Grade 2), dyspnea (Grade 3), and syncope (Grade 3) occurred in 1 patient each

- Dyspnea and syncope were assessed as not related to study treatment by the Sponsor due to underlying co-morbidities

Fatal TESAEs (cardiac failure and myocardial infarction) occurred in 2 (2.5%) patients; both were assessed as unrelated by the PI and Keros

No patients progressed to AML

Category	RP2D (N=79) n (%)
Any TEAE	**74 (93.7)**
Any treatment-related TEAE	**33 (41.8)**
Any TESAE	**28 (35.4)**
Any treatment-related TESAE	**3 (3.8)**
Any TEAE leading to death	**2 (2.5)**
Any TEAE leading to KER-050 discontinuation*	**11 (13.9)**

***Treatment-related TEAEs leading to KER-050 discontinuation: injection site reaction, platelet count increased, and dyspnea**

Unrelated TEAEs leading to KER-050 discontinuation: nodular melanoma, NSCLC, MI, dementia Alzheimer's type, dyspnea, cardiac failure, and COPD & cardiac failure congestive (both in 1 patient)

Treatment-related = considered to be related to the study treatment by the treating investigator.
Number and percent of patients with events were summarized.

Data are presented as of a data cutoff date of September 1, 2023.
AML = acute myeloid leukemia; COPD = chronic obstructive pulmonary disease; MI = myocardial infarction; NSCLC = non-small cell lung cancer; TEAE = treatment emergent adverse event; TESAE = treatment emergent serious adverse event

Hematologic Responses Observed in Broad Array of Patients Treated with KER-050

Responders/N (%)	$mITT_{24}$	
	All (N=60)	HTB (N=33)
Overall Response[a,b]	**30/60 (50)**	**15/33 (45.5)**
Modified IWG 2006 HI-E[c]	**28/60 (47)**	**15/33 (45.5)**
RS+	23/40 (58)	12/23 (52.2)
non-RS	5/20 (25)	3/10 (30)
TI ≥8 weeks[d]	**18/46 (39.1)**	**11/33 (33.3)**
RS+	15/32 (46.9)	8/23 (34.8)
non-RS	3/14 (21.4)	3/10 (30)

HI-E and transfusion independence (TI) response rates in $mITT_{24}$ patients with HTB were similar to those observed in the overall $mITT_{24}$ population, supporting the potential for KER-050 to treat a broad array of patients with MDS including those with greater transfusion burden and bone marrow dysfunction

Data are presented as of a data cutoff date of September 1, 2023.

a. Includes data for weeks 0-24 in $mITT_{24}$ patients; b. Defined as achieving modified IWG 2006 HI-E and/ TI; c. Modified IWG 2006 HI-E = mean increase in hemoglobin ≥1.5 g/dL (NT+LTB) or reduction in transfusion of ≥4 RBC units (HTB) over 8 weeks on treatment compared to 8-week pre-treatment period; d. TI-evaluable patients received at least 2 RBC units in the 8-week pre-treatment period;

Higher Hematologic Response Rates Observed in Patients with Baseline EPO <500 U/L

Responders/N (%)	$mITT_{24}$ EPO<500 U/L[a]	
	All (N=50)	HTB (N=26)
Overall Response[a,b]	**28/50 (56.0)**	**14/26 (53.8)**
Modified IWG 2006 HI-E[c]	**26/50 (52.0)**	**14/26 (53.8)**
RS+	21/36 (58.3)	11/20 (55)
non-RS	5/14 (35.7)	3/6 (50)
TI ≥8 weeks[d]	**17/38 (44.7)**	**10/26 (38.5)**
RS+	14/29 (48.3)	7/20 (35)
non-RS	3/9 (33.3)	3/6 (50)

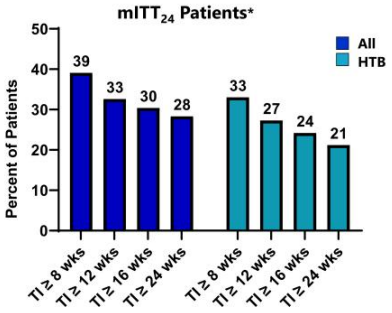
- **Studies in mainly LR-MDS patients suggest that the majority (~90%) of patients have serum EPO levels < 500 U/L[1]**
- **EPO levels ≥500 U/L are associated with lower erythroid response rates across multiple treatments[1]**
- **9 patients in the $mITT_{24}$ population had baseline EPO levels ≥ 500 U/L:**
  - 6/9 had non-RS MDS
  - 3/9 were reclassified by IPSS-M as having high or very-high risk disease

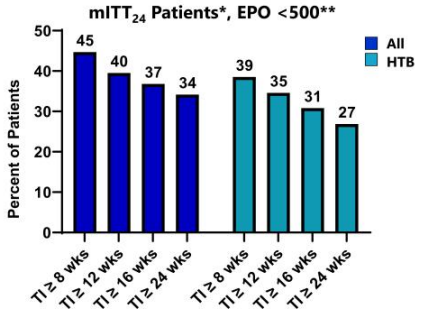
Data are presented as of a data cutoff date of September 1, 2023.

a. Includes data for weeks 0-24 in $mITT_{24}$ patients, excluding one patient with del5q MDS although their baseline EPO was <500 U/L; b. Defined as achieving modified IWG 2006 HI-E and/or TI; c. Modified IWG 2006 HI-E = mean increase in hemoglobin ≥1.5 g/dL (NT+LTB) or reduction in transfusion of ≥4 RBC units (HTB) over 8 weeks on treatment compared to 8-week pre-treatment period; d. TI-evaluable patients received at least 2 RBC units in the 8-week pre-treatment period

1. Park, S et al. Annals of Hematology. 2020.

Observed Rates of TI for ≥24 Weeks Support Durability of Response with KER-050 Treatment

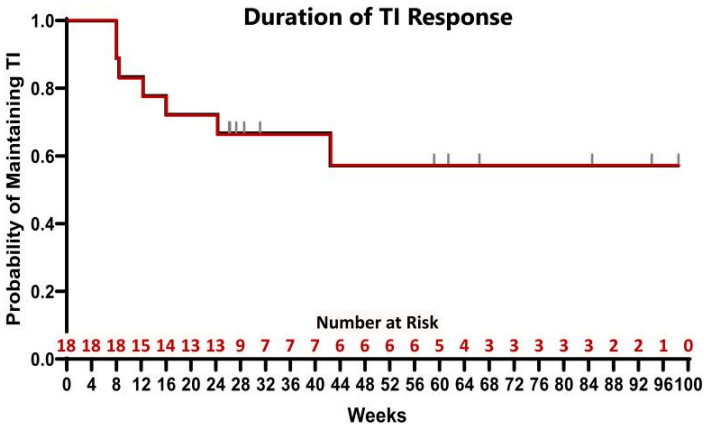




Durable TI was observed including in patients with HTB, and response rates were relatively higher in patients with baseline EPO < 500 U/L

Data are presented as of a data cutoff date of September 1, 2023.
*During Weeks 0-48; **Excludes 1 patient with del5q MDS

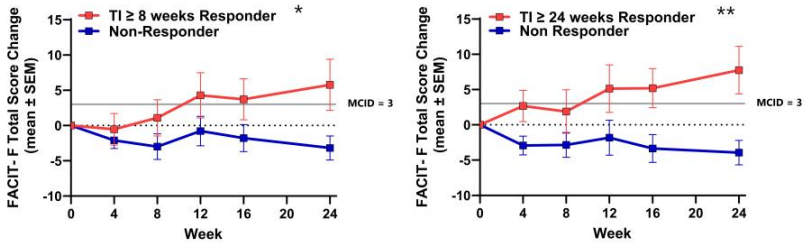
Durable TI Responses Observed with KER-050 Treatment



- **18 participants in the mITT$_{24}$ population had TI ≥ 8 weeks**
  - 11/18 (61.1%) had HTB
  - 13/18 (72%) had TI ≥ 24 weeks
- **11/18 (61.1%) had ongoing TI at time of data cut-off**
  - Median baseline transfusion burden: 4 RBC units/8 weeks (range 2 to 11)
  - 6/11 (54.5%) had ongoing TI for > 52 weeks including participants who had received up to 11 RBC units/8 weeks at baseline
- **Median duration of response not reached (range: 8 to 98 weeks)**

Data are presented as of a data cutoff date of September 1, 2023.
Longest TI interval through KER-050 treatment for mITT$_{24}$ patients who achieved TI≥8 weeks during weeks 0-24; Patients with ongoing response censored at time of cutoff (denoted by vertical lines)

Durable and Clinically Meaningful Improvements in FACIT-Fatigue Scores were Observed in TI Responders to KER-050



Health-related quality of life (HRQOL) is negatively impacted by MDS[1,2] with fatigue identified as a critically important domain to assess in patients with MDS[3]

- Prolonged transfusion dependence is associated with significantly worse HRQOL and shorter overall survival[3]
- Evidence suggests that worse fatigue is associated with reduced survival in MDS[4]
- The FACIT-Fatigue scale is a validated measure of self-reported fatigue and its impact upon daily activities and function that has been widely used in MDS studies[4,5]

Data are presented as of a data cutoff date of September 1, 2023.

*Includes data for mITT$_{24}$ patients with baseline FACIT-Fatigue scores (n = 1 missing) for TI ≥ 8 weeks Responder, assessed from Weeks 0 to 24; ** Includes data for mITT$_{24}$ patients with baseline FACIT-Fatigue scores (n = 1 missing) for TI ≥ 24 weeks Responder, assessed from Weeks 0 to 48;

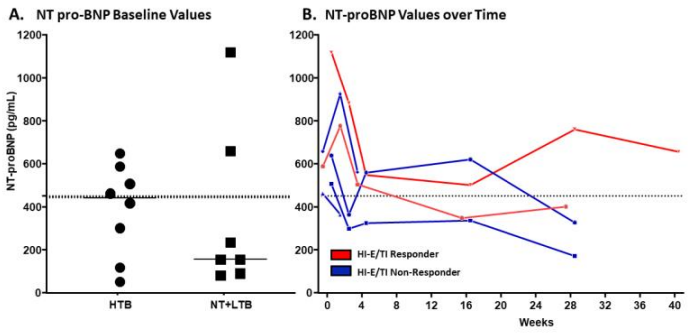
1. Stauder, R et. al., Blood. 2018; 2. Pleyer, Lisa, et al., Cancers. 2023; 3. Santini V. Et al., Clin Lymphoma Myeloma Leuk. 2018; 4. Oliva EN et al., Blood. 2021; 5. Sekeres M. et al., HemaSphere. 2023;

MCID = minimally clinically important difference

Potential of KER-050 to Reduce Cardiac Stress in Exploratory Analysis

- In patients with LR-MDS, cardiovascular (CV) events represent a major cause of death possibly due to myocardial stress exacerbated by chronic anemia and iron overload in MDS[1-3]; NT-proBNP is a biomarker of myocardial stress
- Activin A has been shown to play a pathophysiologic role in CVD[4,5], and has been associated with inflammation[6], vascular and myocardial remodeling[7,8], myocardial infarction[9] and severity of HF[10]
- Decreases in NT-proBNP were observed rapidly following initiation of dosing and were sustained for the majority of individuals regardless of erythropoietic response

Observed Decreases in NT-proBNP



Suggests KER-050 may ameliorate cardiac strain directly via inhibition of activin A and indirectly by improving anemia and reducing transfusion burden

Data are presented as of a data cutoff date of September 1, 2023.

1. Madry et al, Br J Haematol 2022; 2. Oliva E, et al. Am J Blood Res 2011; 3. Gatterman N Int J Hematol 2018; 4. Yndestad A J Appl Physiol. (2009) 106:1356–64; 5. Liu H et al Arteriosclerosis,Thrombosis, and Vascular Biology. 2023;43:330–349; 6. Phillips D, et al. Cytokine Growth Factor Reviews 2009; 20(2):153-164; 7. Ryanto G, et al. Int J Mol Sci 2023; 24(4), 3332; 8. Lin JF, et al. Acta Cardiol Sin 2016; 32(4):420-427; 9.Yndestad et al Circulation. 2004;109:1379–1385; 10. Roh et al Sci Trans Med 2019; CVD=cardiovascular disease; NT-proBNP=N-terminal prohormone brain natriuretic peptide

Summary of KER-050 in MDS

In the ongoing Phase 2 clinical trial of KER-050 in LR-MDS, the majority of patients enrolled had HTB or MLD indicating a difficult-to-treat trial population

KER-050 was generally well-tolerated as of the data cut-off date, with a safety profile consistent to that previously reported for this trial[1,2]

Durable responses of transfusion independence were observed in a broad range of patients with LR-MDS, including those with HTB

- Analysis of patients with EPO < 500 U/L revealed improved erythroid responses across the trial population, including in patients with HTB or non-RS disease
- Transfusion independence, increases in hemoglobin, and increases in platelets were observed, supporting the potential for KER-050 to ameliorate ineffective hematopoiesis across multiple lineages in patients with MDS

Patients who achieved transfusion independence showed clinically meaningful improvements in FACIT-Fatigue scores indicating potential for KER-050 to improve quality of life in patients with LR-MDS

Observations from exploratory assessments of biomarkers:

- Sustained increases in bone specific alkaline phosphatase (BSAP) were observed with KER-050 treatment supportive of potential to improve the bone marrow microenvironment
- Several patients presented with elevated NT-proBNP at baseline, suggestive of increased myocardial stress
  - Rapid decreases with NT-proBNP were observed with KER-050 treatment in HI-E/TI responders and non-responders

Collectively, these results support advancing KER-050 into a Phase 3 registration trial in patients with LR-MDS

[1] Giagounidis et al. EHA 2023; [2] Chee et al. ASH 2022

KER-050 (elritercept)

Investigational Treatment for Anemia and Thrombocytopenia in Patients with Myelofibrosis

Ongoing Phase 2 Open-Label Clinical Trial to Evaluate the Safety and Efficacy of KER-050 as Monotherapy or in Combination with Ruxolitinib in Participants with Myelofibrosis

Myelofibrosis

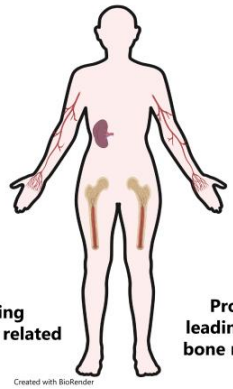
MF
MF is a rare cancer of the bone marrow in which the marrow is replaced by scar tissue and is not able to produce healthy blood cells

Clinical Consequences
MF is characterized by ineffective hematopoiesis, an enlarged spleen, bone marrow fibrosis and shortened survival. Both anemia and thrombocytopenia are negative prognostic indicators

Current Treatments
Currently, there are limited therapeutic options to address the MF-associated cytopenias. Patients not only often experience multiple disease-associated, but also treatment-emergent, cytopenias, including anemia and thrombocytopenia

Scope
In the United States, there are 16,000 to 18,500 patients living with MF and approximately 3,000 newly diagnosed each year

Impact of MF

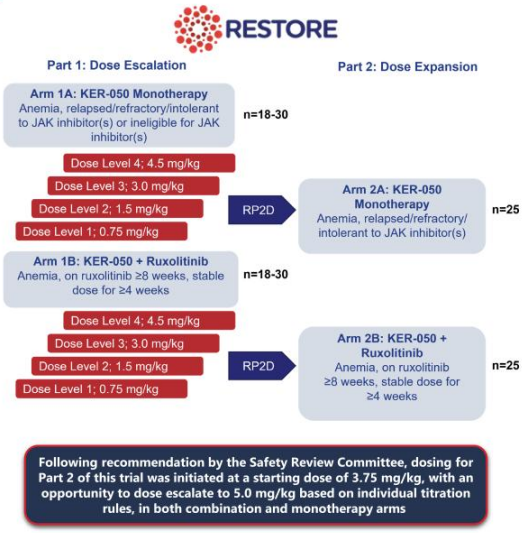


Cytopenias including treatment and disease related severe anemia

Progressive disease leading to splenomegaly, bone marrow fibrosis and AML

Severe fatigue and decreased quality of life

Ongoing Phase 2 Clinical Trial to Evaluate KER-050 as Monotherapy or in Combination with Ruxolitinib in Patients with MF



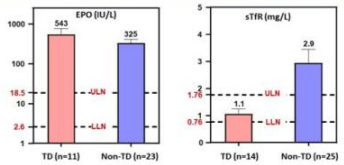
Following recommendation by the Safety Review Committee, dosing for Part 2 of this trial was initiated at a starting dose of 3.75 mg/kg, with an opportunity to dose escalate to 5.0 mg/kg based on individual titration rules, in both combination and monotherapy arms

Data are presented as of a data cutoff date of September 14, 2023.

RESTORE Baseline Demographics

Characteristic	Monotherapy (N=21)	Combination (N=20)	Total (N=41)
Age, years, median (range)	72.0 (60, 85)	74.5 (45, 86)	73.0 (45, 86)
Male (%)	14 (66.7)	12 (60)	26 (63.4)
DIPSS risk category, n (%)			
Intermediate -1	4 (19.0)	1(5.0)	5 (12.2)
Intermediate-2	13 (61.9)	13 (65.0)	26 (63.4)
High	4 (19.0)	6 (30.0)	10 (24.4)
Mutation			
JAK2	10 (47.6)	10 (50.0)	20 (48.8)
CALR	2 (9.5)	5 (25.0)	7 (17.1)
MPL	3 (14.3)	2 (10.0)	5 (12.2)
Triple-negative	5 (23.8)	0	5 (12.2)
RBC U/12 wks, median (range)	4 (0, 25)	4.5 (0, 15)	4 (0, 25)
TD (≥6 RBC U/12 wks)*	10 (6, 25) [n=6]	9 (6, 15) [n=9]	10 (6, 25) [n=15]
Non-TD (<6 RBC U/12wks)	3 (0, 9) [n=15]	3 (0, 5) [n=11]	3 (0, 9) [n=26]
Hgb (g/dL), median (range)	8.18 (7.2, 10.1)	8.03 (5.4, 9.4)	8.08 (5.4, 10.1)
Reticulocytes, x10^9/L, median (range)	50.4 (9, 328)	70.7 (7, 173)	62.1 (7, 328)
Platelets, x10^9/L, median (range)	112.0 (27, 561)	158.1 (42, 243)	142.3 (27, 561)
Spleen volume, cm^3, median (range)	587.4 (138,2650) [n=16]	920.6 (357,2195) [n=17]	867.7 (138,2650) [n=33]
≥ 450 cm^3, n(%)	11 (68.8)	12 (70.6)	23 (69.7)
MF-SAF-TSS, total, median (range)	16 (0, 56)	10 (0, 36)	11 (0, 56)
≥ 10, n(%)	18 (85.7)	11 (55.0)	29 (70.7)

RESTORE Baseline Biomarkers of Erythropoiesis



KER-050 Was Generally Well-Tolerated in Patients with Significant Disease Burden

TEAEs mild to moderate

Treatment-related TEAEs relatively infrequent

- Two had Grade 3 or higher worsening cytopenias

One Dose Limiting Toxicity in Part 1

- Increased Hgb ≥2 g/dL in dose Level 2 cohort of monotherapy arm
- No associated AE, Hgb within normal limits

Three TEAEs* leading to death, all deemed unrelated to study therapy

Category, n (%)	Monotherapy (N=21)	Combination (N=20)	Total (N=41)
Any TEAE	**20 (95.2)**	**19 (95.0)**	**39 (95.1)**
Most frequent TEAEs (≥10%* of participants)			
Diarrhea	3 (14.3)	6 (30.0)	9 (22.0)
Thrombocytopenia	5 (23.8)	2 (10.0)	7 (17.1)
Asthenia	5 (23.8)	1 (5.0)	6 (14.6)
Fatigue	3 (14.3)	3 (15.0)	6 (14.6)
Pyrexia	5 (23.8)	1 (5.0)	6 (14.6)
DLTs	**1 (4.8)**	**0**	**1 (2.4)**
SAEs	**7 (33.3)**	**8 (40.0)**	**15 (36.6)**
KER-050-related TEAE	**6 (28.6)**	**4 (20.0)**	**10 (24.4)**
Ruxolitinib-related TEAE	**N/A**	**6 (30.0)**	**6 (14.6)**
KER-050-related TEAE of Grade ≥ 3	**1 (4.8)**	**0**	**1 (2.4)**
Ruxolitinib-related TEAE of Grade ≥ 3	**N/A**	**1 (5.0)**	**1 (2.4)**
TEAE leading to KER-050 discontinuation	**4 (19.0)**	**3 (15.0)**	**7 (17.1)**
TEAE leading to ruxolitinib discontinuation	**N/A**	**2 (10.0)**	**2 (4.9)**
TEAE Leading to Death	**1 (4.8)**	**2 (10.0)**	**3 (7.3)**

Data are presented as of a data cutoff date of September 14, 2023.
*Transformation to AML, cerebrovascular accident and pneumonia
DLT=dose limiting toxicity

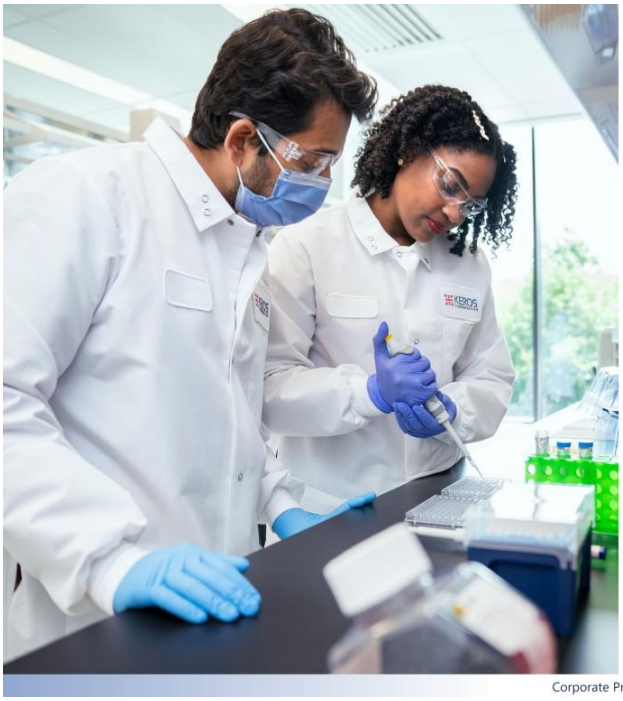
Preliminary Data Support Potential for KER-050 to Address Multiple Aspects of MF

Hematopoiesis	Spleen Size	Symptoms
• Observed increases in markers of erythropoiesis • Mean increases in hemoglobin and reduction in transfusion burden observed over 12 weeks • Maintenance or improvement in platelet counts observed	• Observed reduction in spleen size in 4/7 (57%) evaluable* patients (1/3 mono, 3/4 combo) at Week 24 • Median reduction (n=4) = -27.1% (range -47.5% to -11.2%) • Median change (n=7) = -11.2% (range: -47.5% to 30%)	• Observed reduction in disease symptoms in 8/12 (67%) evaluable# patients at Week 24 • Median reduction (n=8) = -16.8% (range -55.6% to -6.7%) • Median change (n=12) = -13.2% (range -55.6% to 54.5%)

Data are presented as of a data cutoff date of September 14, 2023.

*Evaluable defined as patients with baseline spleen size ≥ 450 cm^3 and a Week 24 spleen assessment

Evaluable defined as patients with at least 2 symptoms with an average score ≥ 3 or an average total score of ≥ 10 on the MF-SAF-TSS questionnaire at baseline and with a Week 24 MF-SAF-TSS assessment



Pulmonary & Cardiovascular Franchise

KER-012

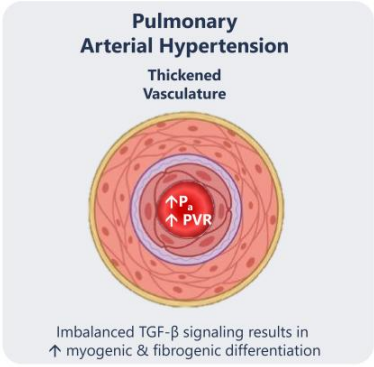
Investigational Treatment for Pulmonary Arterial Hypertension (PAH) and for Cardiovascular Disorders

Ongoing Randomized, Phase 2, Double-blind, Placebo-Controlled Clinical Trial to Evaluate the Safety and Efficacy of KER-012 in Combination with Background Therapy in Adult Participants with Pulmonary Hypertension

Imbalances in TGF-β Superfamily Signaling Underlies Vascular Remodeling in PAH

PAH is a debilitating disorder characterized by elevated pulmonary vascular resistance due to increased vascular smooth muscle cell proliferation and inflammation

- This results in diminished oxygenation, impaired cardiac output, and right ventricle (RV) overload
- Despite current treatment options, the 5-year survival remains only slightly above 50%
- PAH is associated with imbalanced TGF-β superfamily signaling, including insufficient bone morphogenic protein (BMP) signaling and increased signaling by activins and GDFs
  - A third-party Phase 3 clinical trial of sotatercept[1] demonstrated the importance of the TGF-β superfamily in patients with PAH
  - Maximum dose of sotatercept in PAH limited to 0.7 mg/kg in the clinical trial due to increased hemoglobin observed in earlier-phase clinical trials[2,3]



KER-012 is a modified activin receptor IIB ligand trap:

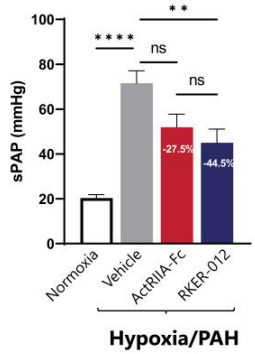
- Designed to rebalance TGF-β superfamily signaling
- Being developed for the treatment of pulmonary and cardiovascular disorders, including PAH
- Designed to preferentially inhibit select ligands (activin A, activin B, GDF8 and GDF11) to potentially rebalance TGF-β superfamily signaling without a dose-limiting increase in RBCs

1. Hoeper M, et al. New Eng J Med 2023; 388 (16):1478-90; 2. Sherman et al 2013 J. Clin Pharmacol 53(11) 1121–1130; 3. Humbert M et al, New Engl J Med 2023; 384:1204-15; 3. Cappellini MD et al. Haematologica 2019; 104(3) 477-484

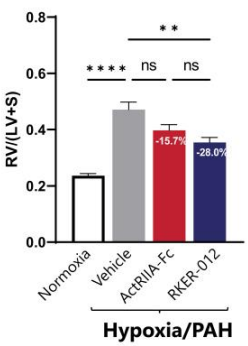
RKER-012 Reduced Pulmonary Arterial Pressure, Right Ventricle Hypertrophy and Cardiac Fibrosis in Rodent PAH Models

Sugen-Hypoxia Model of PAH[1]

Pulmonary Artery Pressure

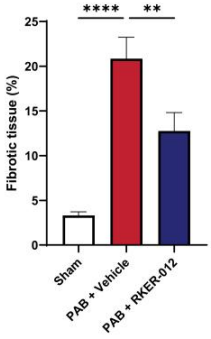


Fulton Index



Pulmonary Artery Banding[2] (Direct Cardiac Effects)

Cardiac Fibrosis



One way ANOVA followed by Sidak post-hoc test. Ns – not significant, * p ≤ 0.05, ** p ≤ 0.01, *** p ≤ 0.001, **** p ≤ 0.0001.

1. K. Babbs, et al. Am J Respir Crit Care Med 2022;205:A5776; 2. Babbs K, et al. Am Heart Association Scientific Sessions 2021; RKER-012 = Research KER-012 fused with Fc region of murine IgG1

Observed KER-012 Profile Supports Therapeutic Rationale in PAH

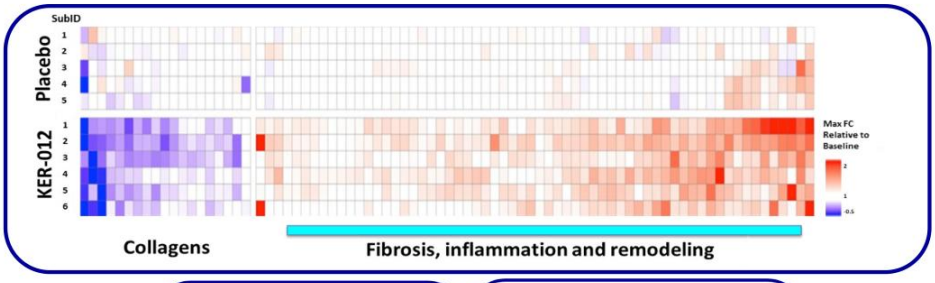
Keros completed a randomized, double-blind, placebo-controlled, two-part Phase 1 clinical trial to evaluate single and multiple ascending doses of KER-012 in healthy volunteers.

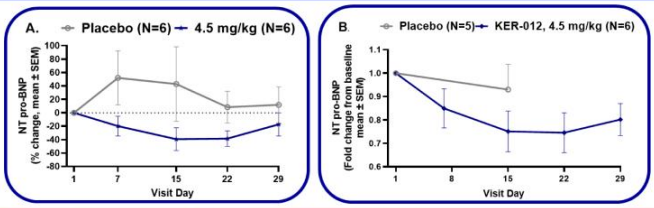
- The primary objectives of this trial were safety, tolerability and pharmacokinetics.

PAH Domain	Preclinical Data	Phase 1 Clinical Trial[1,2]
 MOA & Ligand Specificity:	• Strong activin/GDF binding observed • Observed to be BMP-sparing vs. ActRIIA-Fc	• We believe PD data support potential for maximal target engagement with doses in Phase 2
 Fibrosis & Inflammation:	↓ Inflammation ↓ Fibrosis	↓ Pro-inflammatory biomarkers ↑ Anti-inflammatory biomarkers ↓ Pro-fibrotic biomarkers ↑ Anti-fibrotic biomarkers
 CV & Hemodynamics:	↓ Smooth muscle hypertrophy ↓ Pulmonary arterial pressure ↓ Right & left ventricular hypertrophy ↓ Cardiac fibrosis (direct) ↓ Ventricular dysfunction biomarkers	↓ Ventricular dysfunction biomarkers ↓ Remodeling biomarkers
 Erythropoiesis (Hb/RBCs):	• No increase observed	• No clinically meaningful changes observed
 Safety & Tolerability:	N/A	• Generally well tolerated up to 4.5 mg/kg (multiple doses) in Part 2 of the trial • AEs generally mild

1. Natarajan H., et al. American Society for Bone and Mineral Research 2022 Annual Meeting; 2. Natarajan H., et al. 2023 American Thoracic Society International Conference

KER-012 Altered Expression of Serum Proteins Associated with Inflammation and Extracellular Matrix Remodeling and Lowered NT-proBNP levels

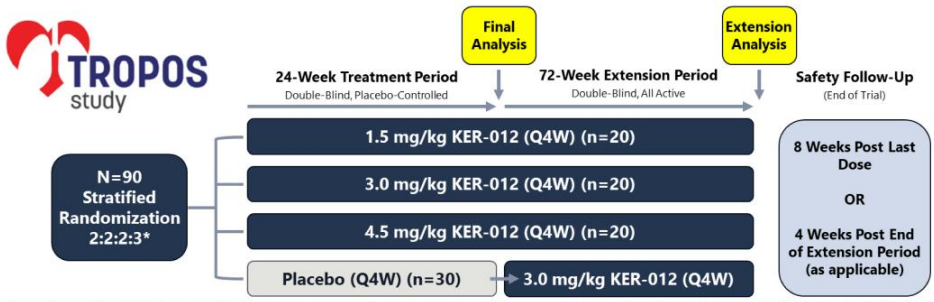




Additional exploratory biomarker data demonstrated initial target engagement at 0.75 mg/kg and maximum target engagement at 4.5 mg/kg

Natarajan H, et al Am J Respir Crit Care Med 2023;207:A1187

TROPOS Trial: Global Phase 2 Clinical Trial of KER-012 in Patients with PAH



*Approximately 90 patients diagnosed with PAH and on stable PAH background therapy will be randomized and assigned in a 2:2:2:3 ratio to the 1.5 mg/kg, 3.0 mg/kg, and 4.5 mg/kg KER-012 doses and placebo treatment arms.

Primary Objective:

- To evaluate the effect of KER-012 on hemodynamics compared to placebo in participants on background PAH therapy

Primary Endpoint:

- Change from baseline in pulmonary vascular resistance (PVR) at Week 24

Key Secondary Objective:

- To evaluate the effect of KER-012 on exercise capacity compared to placebo in participants on background PAH therapy

Key Secondary Endpoint:

- Change from baseline in 6-minute walk distance at Week 24

Open-Label Biomarker Phase 2 Clinical Trial of KER-012

Ongoing open-label, exploratory Phase 2 clinical trial evaluating KER-012 in adult patients with chronic heart failure with preserved ejection fraction (HFpEF) or with reduced ejection fraction (HFrEF)

The primary objective of this trial is to evaluate the tolerability and safety of KER-012 administered as multiple subcutaneous doses once every four weeks in patients with chronic heart failure

- In addition, this trial will explore pharmacokinetics, pharmacodynamic effects and NT-proBNP

Trial Design:

- Six patients with HFpEF will be dosed with 4.5 mg/kg of KER-012 once every four weeks for up to 24 weeks
- Once all six patients have completed Study Day 29, the preliminary safety data will be reviewed by the Safety Review Committee
- Based on the outcome of this review, six patients with HFrEF are expected to be enrolled, and these patients will also receive 4.5 mg/kg of KER-012 once every four weeks for up to 24 weeks
- After the last dose of KER-012, patients will enter into a safety follow-up period for eight weeks

Keros expects to announce initial data from this trial in the second half of 2024

Obesity & Neuromuscular Franchise

KER-065, a Novel Activin Receptor Ligand Trap for the Treatment of Obesity and Neuromuscular Disorders

Keros' preclinical library of activin receptor ligand traps contains more than 40 distinct molecules containing sequences from ActRIIA and ActRIIB

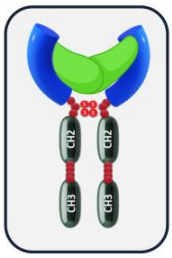
- KER-065 is the 3rd molecule selected from our preclinical library for clinical development

KER-065 is a modified activin receptor IIA (ActRIIA) and activin receptor IIB (ActRIIB) ligand trap

- ~50% amino acids derived from each activin receptor

KER-065 is designed to bind to the negative regulators of muscle growth, activin A and myostatin, to increase skeletal muscle without an increase in red blood cells

- Reduced binding to bone morphogenic proteins to avoid the vascular/bleeding observed with ActRIIb-Fc derived from the native sequence



Domain	Potential Effect[1]
Muscle	Increase in skeletal muscle Does not increase smooth muscle and cardiac muscle
Fat	Decreases fat mass
Bone	Increases bone mineral density
Fibrosis and Inflammation	Reduce fibrosis and inflammation via Activin A inhibition
Cardiac	Improve cardiac function via Activin A inhibition

1. Observed in preclinical studies.

KER-065:
Neuromuscular Diseases

KER-065: Neuromuscular Diseases

Muscle loss can occur as a consequence of many factors, including neuromuscular disease, disuse, aging and as a side effect of some therapies

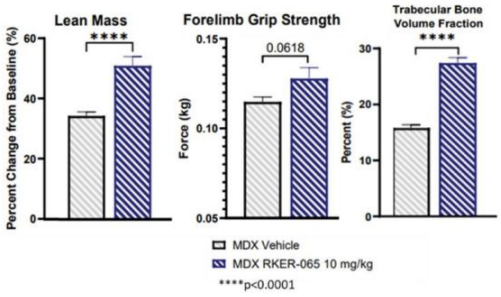
In neuromuscular diseases, muscle loss can result in muscle weakness and, with increased severity, can lead to loss of ambulation, reliance on a wheelchair, swallowing difficulties, respiratory muscle weakness and death

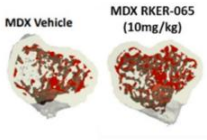
- Decline in muscle mass can also be associated with secondary osteoporosis and metabolic consequences, including obesity and insulin resistance

TGF-β pathway signaling regulates skeletal muscle, fat and bone, and activins and myostatin are powerful negative regulators of skeletal muscle

In preclinical studies, KER-065 showed high affinity for and potent inhibition of ligands involved in the regulation of muscle and bone homeostasis. Additionally, the research form of KER-065 (RKER-065) :

- Increased muscle mass, muscle function and bone mass in wild-type mice
- Increased muscle mass, grip strength and trabecular bone in a mouse model of DMD[1]
- Increased muscle mass, improved muscle function and prevented bone loss in prednisolone-treated mice





1. Nathan, R., et al. 27th International Hybrid Annual Congress of the World Muscle Society

Treatment with RKER-065 Led to Higher Utrophin Levels in Mouse Model of DMD

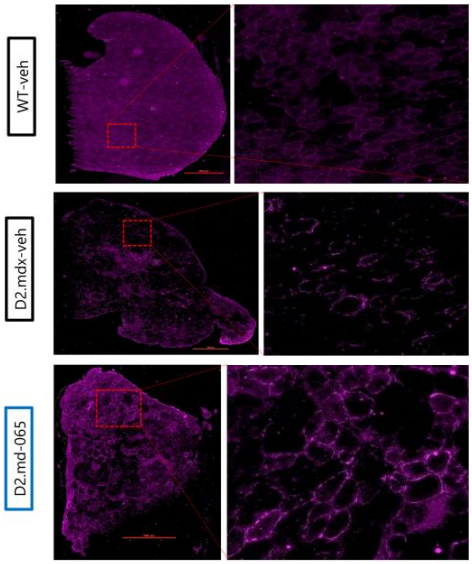
Muscle lacking dystrophin is easily damaged during the process of contraction

Many approaches have been utilized to stabilize the muscle and provide resistance to contractile-induced damage

- Antisense oligonucleotides to trigger exon skipping, restore the mRNA reading frame, and allow production of a truncated dystrophin protein
- Gene therapy with mini and micro dystrophin
- Increase expression of utrophin (a functional analog of dystrophin)

Treatment with RKER-065 in a mouse model of DMD led to:

- Increased expression of utrophin in muscle fibers, potentially contributing to the observed increased strength[1]



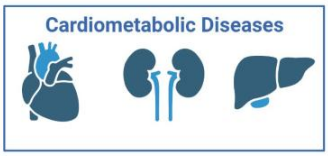
1. Nathan, R., et al. 28th International Annual Congress of the World Muscle Society

KER-065:
Obesity

- We believe preclinical data suggests KER-065 has the potential to improve body composition by increasing muscle mass and decreasing fat mass alone or in combination with glucagon-like peptide-1 (GLP-1) receptor agonists
- By targeting activin A, KER-065 has the potential to directly reduce inflammation and fibrosis, the processes resulting in the development of cardiometabolic diseases
- Potential for infrequent (monthly) subcutaneous dosing

Obesity is a Growing Public Health Crisis

Obesity is a global public health crisis, with over 1.9 billion overweight adults worldwide in 2016, 650 million of which were considered to be obese



Obesity increases risk of hypertension, dyslipidemia, type 2 diabetes, certain cancers and cardiometabolic diseases

According to the Centers for Disease Control and Prevention, the estimated annual medical cost of obesity in the U.S. was nearly $173.0 billion in 2019 dollars

Current GLP-1 RA Treatment Landscape for Obesity

GLP-1 receptor agonists (GLP-1 RAs) have recently been approved for the treatment of obesity

- Treatment with GLP-1 RAs led to 15%-21% mean weight loss[1,2], reductions in blood lipids, improvements in glycemic control and better cardiac outcomes[3]

Weight loss is due to reduction in fat mass and reduction in lean body mass as a result of treatment

- An estimated 25%-40% of total body weight loss mediated by GLP-1 RA treatment may be attributed to loss of lean muscle mass[1,2]

Majority of body weight loss is regained after stopping GLP-1 RA treatment

- In extension analyses of 327 participants, participants regained 67% of prior weight loss one year after withdrawal of once-weekly subcutaneous GLP-1 RA treatment and lifestyle intervention[4]

Need for treatment options that:

- Ameliorate the loss of lean mass due to GLP-1 RA treatment and obesity
- Provide long-term treatment option for maintenance of weight loss
- Directly impact disease processes that contribute to cardiometabolic diseases

1. N Engl J Med 2021;384:989-1002; 2. N Engl J Med 2022;387:205-16; 3. N Engl J Med 2023; 389:2221-2232; 4. Diabetes Obes Metab. 2022; 8:1553–1564

Well-Established Rationale for Targeting Activin and Myostatin Signaling as Treatment for Obesity and Associated Cardiometabolic Disease

Muscle Tissue

- Inhibition of activin A and myostatin increase muscle hypertrophy and strength

Adipose (Fat) Tissue

- Activin A, activin B, activin E and GDF3 signal via ActRII[1] and inhibit differentiation of cells to energy-consuming "brown" fat cells
- Inhibition of these ligands increases energy expenditure by adipocytes[2]

Cardiac Disease

- Activin A and follistatin-like 3 are increased in patients with heart failure[3]

Clinical proof-of-concept established in third-party clinical trials, with multiple approaches targeting the TGF-β superfamily pathway

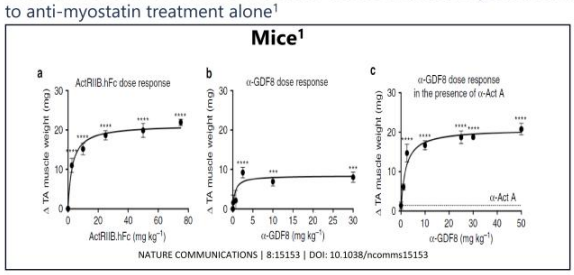
- Selective neutralizing antibodies to myostatin and activin A
- Neutralizing antibodies targeting ActRIIA and ActRIIB
- ActRIIB-Fc ligand trap that binds multiple ligands, including activin A and myostatin

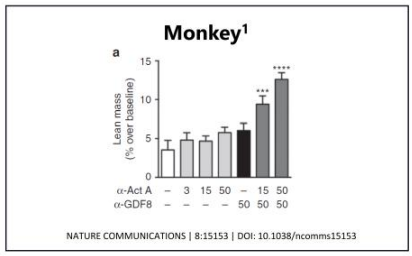
1. Endocrinology. 2012;153:3133-46; 2. Mol. Cell. Biol. 2012;32:2871-2879; 3. Sci. Transl. Med. 2019; 11:eaau8680

Inhibition of Both Activin A and Myostatin is Required to Maximally Increase Skeletal Muscle in Mice and Monkeys

In third-party preclinical studies, selective inhibition of myostatin (GDF-8) or activin A resulted in small increases in muscle mass in rodents and non-human primates[1]

- Targeting multiple ligands in the TGF-β superfamily produced the largest increase in skeletal muscle[1]
- More than two times increase in skeletal muscle with anti-myostatin and anti-activin A combination or ActRIIB-Fc treatment compared to anti-myostatin treatment alone[1]





ActRIIB-Fc ligand trap and neutralizing antibodies targeting ActRIIA and ActRIIB showed similar increases in muscle[2,3]

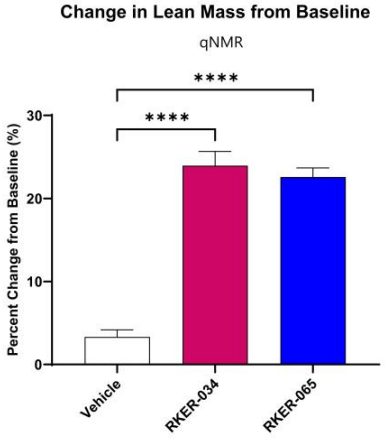
- ActRIIB-Fc subcutaneous administration
- Anti-ActRIIA/ActRIIB such as bimagrumab are intravenous administration

Keros' ActRII ligand traps are designed to inhibit myostatin and activin A to potentially produce a maximal increase in skeletal muscle

1. Latres, E., Mastaitis, J., Fury, W. *et al.* Activin A more prominently regulates muscle mass in primates than does GDF8. *Nat Commun* 8, 15153 (2017). https://doi.org/10.1038/ncomms15153
2. Mol. Cell. Bio. 2014;34:606-618
3. J. Appl Physiol 2010;109:635-642

Equivalent Increase in Lean Mass Observed in Obese Mice with RKER-034 and RKER-065

- RKER-034, a preclinical asset from our proprietary library of ActRII ligand traps, is closely related to KER-065. Similar to KER-065, RKER-034 is designed to bind to and inhibit multiple TGF-ß ligands, including activin A and myostatin (GDF8), and has increased skeletal mass and bone in preclinical studies
- Mice fed sugar- or fat-enriched diets for a long time end up with metabolic diseases like humans: obesity, high blood sugar, high blood pressure, insulin resistance, heart failure and liver disease[1]
- Administration of either RKER-034 or RKER-065 (10 mg/kg, twice weekly for four weeks) in obese mice on a high calorie diet resulted in equivalent increases in lean mass

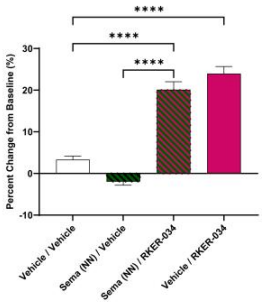


P value: *<0.05, **<0.01, *** <0.001, **** <0.0001

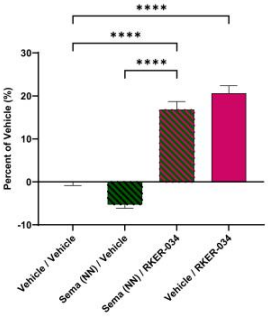
1. *Nutr. Metab. (Lond).* 13:65

RKER-034 Preserved Lean Mass in Obese Mice Treated with Semaglutide

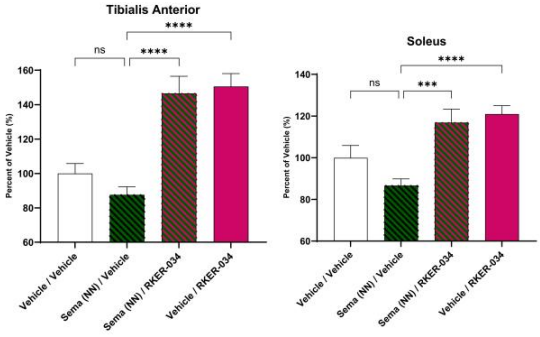
Change in Lean Mass by qNMR (from baseline)



Change in Lean Mass by qNMR (% of vehicle)



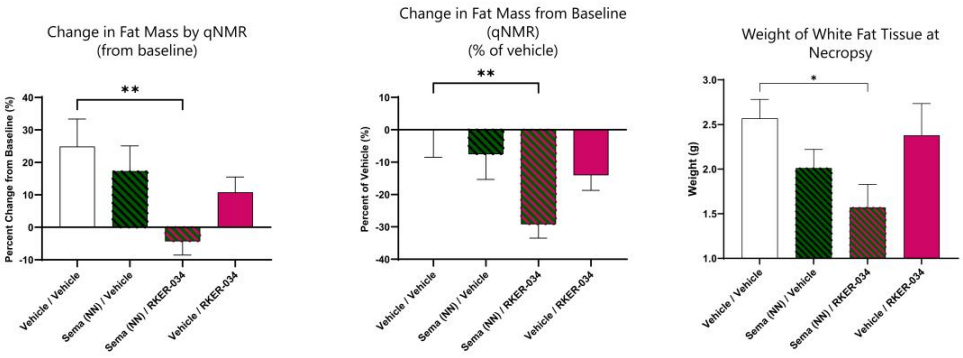
Individual Muscle Weights at End of Study



- Obese mice treated with semaglutide (sema; 0.041 mg/kg twice weekly), a GLP-1 RA, lost lean mass
- Administration of RKER-034 not only preserved, but also increased lean mass in sema-treated obese mice
- Observed increase in lean mass with combination therapy (0.041 mg/kg sema and 10 mg/kg RKER-034) was equivalent to RKER-034 treatment alone

P value: *<0.05, **<0.01, *** <0.001, **** <0.0001

Treatment Enhanced Fat Loss with Semaglutide



- Obese mice on high calorie diet continued to gain weight and fat mass
- Treatment with sema (0.041 mg/kg twice weekly) resulted in reduced fat gain compared to untreated obese mice
- Treatment with RKER-034 (10 mg/kg twice weekly) reduced fat gain equivalent to sema
- Treatment with 10 mg/kg RKER-034 and 0.041 mg/kg sema not only reduced the fat gain, but lost fat mass compared to baseline

P value: *<0.05, **<0.01, *** <0.001, **** <0.0001

Summary of Preclinical Studies in the Diet Induced Mouse Model of Obesity

Treatment with RKER-065 and RKER-034 showed similar increases in skeletal muscle

As a single treatment, both RKER-065 and RKER-034 increased lean (muscle) mass and reduced fat mass

Combination treatment with RKER-034 and sema led to:

- Reversal of lean mass mediated by sema
- Enhanced loss of fat mass through increased energy expenditure from increased lean mass

Based on this preclinical data, we believe that KER-065 has the potential to treat obesity as a standalone therapy and in combination with GLP-1 RAs, by increasing muscle mass and decreasing fat mass

KER-065 Phase 1 Clinical Trial in Healthy Volunteers

Primary objectives of this Phase 1 clinical trial are to evaluate safety, tolerability and pharmacokinetics of single and multiple ascending doses of KER-065

The multiple ascending dose portion of this trial will enroll patients with elevated body mass index (BMI) of 27-33 to evaluate KER-065's effect on lean mass, fat mass and bone mineral density

- Imaging by DXA and MRI

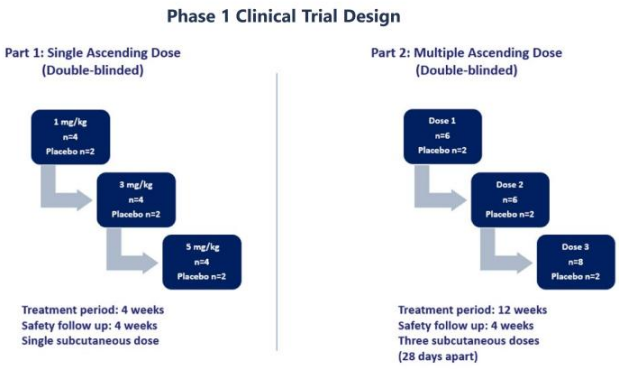
Additional exploratory biomarkers will be included to examine KER-065's pharmacologic effect on:

- Biomarkers of bone formation and resorption
- Adipokines
- NT-proBNP, a marker of cardiac stress
- Markers of fibrosis

We believe this trial has the potential to provide biologic proof-of-concept to support initiation of a Phase 2 proof-of-concept clinical trial in patients with obesity

- Informs potential development in neuromuscular indications such as Duchenne muscular dystrophy (DMD)
  - Patients on the DMD standard of care, glucocorticoids, have higher BMI, muscle loss, insulin resistance and accelerated bone loss
- We expect to announce data from this Phase 1 clinical trial in Q1 2025

KER-065 Phase 1 Trial Design



Primary Objective

- Evaluate the tolerability and safety of KER-065

Secondary Objective

- Evaluate the PK of KER-065

Exploratory Objectives

- Assess the pharmacodynamic (PD) effect on bone, adipose, muscle, cardiac tissue, and fibrosis of KER-065
- Inclusion of overweight/obese volunteers in MAD to enhance ability to detect change in PD effects

Study Subjects:

- Healthy volunteers
- Males 18-55 years of age
- Body Mass Index:
  - SAD: 18.5 – 30
  - MAD: 27 – 33

Proprietary Discovery Approach

Proprietary Discovery Approach

We have developed a proprietary library of ActRII ligand traps by combining sequences from ActRIIA and ActRIIB

- We have engineered molecules that are designed to have the therapeutic properties of either or both parent molecules
- Our ActRII program has produced a broader pipeline of engineered ligand traps and currently contains more than 20 unique variants in preclinical development
- KER-065 was nominated out of this proprietary library of ActRII ligand traps for clinical development
- KER-034 is another ActRII ligand trap in our preclinical pipeline closely related to KER-065

This discovery approach has the potential to identify additional molecules with differentiated profiles from existing third-party products and product candidates

- Pipeline of preclinical assets: musculoskeletal; obesity; other undisclosed indications

Anticipated Key Milestones

KER-050

▸ Engage with regulators on design of Phase 3 MDS trial	H1 2024
▸ Announce additional data from Part 2 of Phase 2 MDS trial	Q2 & Q4 2024
▸ Announce additional data from Phase 2 MF trial	Q2 & Q4 2024

KER-012

▸ Provide update on enrollment of Phase 2 PAH TROPOS trial	H1 2024
▸ Announce initial data from Phase 2 open-label biomarker trial in patients with chronic heart failure with preserved ejection fraction and in such patients with reduced ejection fraction	H2 2024

KER-065

▸ Announce data from Phase 1 healthy volunteer trial	Q1 2025

Keros Therapeutics to Develop KER-065 for the Treatment of Obesity

- *Keros commenced a randomized, double-blind, placebo-controlled, two-part Phase 1 clinical trial to evaluate single and multiple ascending doses of KER-065 in healthy volunteers*
- *Keros expects to report initial data from this Phase 1 clinical trial in the first quarter of 2025*
- *Preclinical data showed potential proof-of-mechanism of KER-065 for the treatment of obesity*
- *Keros believes these preclinical data support developing KER-065 for the treatment of obesity, and Keros plans to initiate a proof-of-concept trial of KER-065 in obese patients following completion of this Phase 1 clinical trial*

LEXINGTON, Mass., Jan. 3, 2024 (GLOBE NEWSWIRE) -- Keros Therapeutics, Inc. (“Keros” or “we”) (Nasdaq: KROS), a clinical-stage biopharmaceutical company focused on developing and commercializing novel therapeutics to treat a wide range of patients with disorders that are linked to dysfunctional signaling of the transforming growth factor-beta (“TGF-ß”) family of proteins, today announced that it plans to develop KER-065, a novel ligand trap designed to bind to and inhibit TGF-ß ligands, including myostatin (GDF8) and activin A, for the treatment of obesity.

“Obesity is a complex and chronic disease associated with numerous comorbidities and a growing prevalence in patients. We believe there is a need for additional treatment options, including one that leads to weight loss without an associated loss of muscle and a potential for frailty. Based on our preclinical data, we believe that KER-065 has the potential to treat obesity without those limitations, by increasing skeletal muscle, reducing fat mass through an increase in energy expenditure, improving insulin sensitivity and improving cardiac function,” said Jasbir S. Seehra, Ph.D., President and Chief Executive Officer of Keros. “To that end, we recently commenced our Phase 1 clinical trial evaluating KER-065 in healthy volunteers and, following its successful completion, plan to initiate a proof-of-concept trial of KER-065 in obese patients.”

Preclinical data showed potential proof-of-mechanism of KER-065 for the treatment of obesity with a research form of KER-065 (“RKER-065”) and a research form of another ActRII ligand trap closely related to KER-065 (“RKER-034”). Specifically, in preclinical studies:

- KER-065 and KER-034 each showed high affinity for and potent inhibition of ligands, including activin A and myostatin (GDF8), which are key negative regulators of muscle and bone growth.
- RKER-065 and RKER-034 had equivalent increases in skeletal muscle in the diet-induced obesity (“DIO”) mouse model.
- A combination treatment of RKER-034 and a glucagon-like peptide-1 receptor agonist (“GLP-1 RA”) increased lean mass in the DIO mouse model, as compared to the loss of lean mass observed in obese mice treated with the GLP-1 RA alone.
    - While monotherapy dosing of the GLP-1 RA and RKER-034 led to reductions in fat gain compared to untreated obese mice, the combination treatment resulted in fat loss compared to untreated obese mice.

Based on this preclinical data, Keros believes that KER-065 has the potential to treat obesity both as a monotherapy and in combination with GLP-1 RA by increasing muscle mass and decreasing fat mass.

About the Ongoing Phase 1 Clinical Trial of KER-065 in Healthy Volunteers

Keros is conducting a randomized, double-blind, placebo-controlled, two-part Phase 1 clinical trial to evaluate single and multiple ascending doses of KER-065 in healthy volunteers.

The primary objectives of this trial are to assess safety, tolerability and pharmacokinetics of KER-065. Exploratory endpoints include assessments of the pharmacodynamic effect on bone, adipose, muscle, cardiac tissue and fibrosis. To aid in the assessment of adipose tissue, volunteers in Part 2 of this trial will be required to have a BMI between ≥ 27 and ≤ 33 kg/m^2 to be enrolled.

About Keros Therapeutics, Inc.

Keros is a clinical-stage biopharmaceutical company focused on developing and commercializing novel therapeutics to treat a wide range of patients with disorders that are linked to dysfunctional signaling of the TGF-ß family of proteins. We are a leader in understanding the role of the TGF-ß family of proteins, which are master regulators of the growth, repair and maintenance of blood cells and a number of tissues, including bone, skeletal muscle, adipose and heart tissue. By leveraging this understanding, we have discovered and are developing large and small molecules that have the potential to provide meaningful and potentially disease-modifying benefit to patients. Keros' lead protein therapeutic product candidate, KER-050 (elritercept), is being developed for the treatment of low blood cell counts, or cytopenias, including anemia and thrombocytopenia, in patients with myelodysplastic syndromes and in patients with myelofibrosis. Keros' second product candidate, KER-012, is being developed for the treatment of pulmonary arterial hypertension and for the treatment of cardiovascular disorders. Keros' third product candidate, KER-065, is being developed for the treatment of obesity and for the treatment of neuromuscular diseases.

Cautionary Note Regarding Forward-Looking Statements

Statements contained in this press release regarding matters that are not historical facts are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. Words such as "believes," "expects," "plans," "potential," "would" and "future" or similar expressions such as "look forward" are intended to identify forward-looking statements. Examples of these forward-looking statements include statements concerning: Keros' expectations regarding its growth, strategy, progress and the design, objectives and timing of its clinical trials for KER-065; and the potential of KER-065 to treat obesity without an associated loss of muscle and potential for frailty, both as a monotherapy and in combination with GLP-1 RAs. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. These risks and uncertainties include, among others: Keros' limited operating history and historical losses; Keros' ability to raise additional funding to complete the development and any commercialization of its product candidates; Keros' dependence on the success of its product candidates, KER-050, KER-012 and KER-065; that Keros may be delayed in initiating, enrolling or completing any clinical trials; competition from third parties that are developing products for similar uses; Keros' ability to obtain, maintain and protect its intellectual property; and Keros' dependence on third parties in connection with manufacturing, clinical trials and preclinical studies.

These and other risks are described more fully in Keros' filings with the Securities and Exchange Commission ("SEC"), including the "Risk Factors" section of the Company's Quarterly Report on Form 10-Q, filed with the SEC on November 6, 2023, and its other documents subsequently filed with or furnished to the SEC. All forward-looking statements contained in this press release speak only as of the date on which they were made. Except to the extent required by law, Keros undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they were made.

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