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

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**FORM 8-K**

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

**Date of Report (Date of earliest event reported): May 18, 2022**

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

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**Delaware**  
(state or other jurisdiction  
of incorporation)

**001-39264**  
(Commission  
File Number)

**81-1173868**  
(I.R.S. Employer  
Identification No.)

**99 Hayden Avenue, Suite 120, Building E**

**Lexington, Massachusetts**  
(Address of principal executive offices)

**02421**  
(Zip Code)

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

Not applicable

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

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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))
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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 8.01 Other Events.**

On May 18, 2022, Keros Therapeutics, Inc. (the "Company") issued a press release announcing preliminary topline results from Part 1 of its ongoing Phase 1 clinical trial evaluating single and multiple ascending doses of KER-012 in healthy postmenopausal volunteers. A copy of the press release is attached as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

During a conference call and webcast scheduled to be held at 8:00 a.m. Eastern time on May 18, 2022, the Company's management will discuss the topline results from Part 1 of its ongoing Phase 1 clinical trial of KER-012. A copy of the presentation for the conference call and webcast is attached as Exhibit 99.2 to this Current Report on Form 8-K and is incorporated by reference herein.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	<a href="#">Press release dated May 18, 2022.</a>
99.2	<a href="#">Investor Presentation dated May 2022.</a>
104	Cover Page Interactive Data File (the cover page XBRL tags are embedded within the Inline XBRL document)

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**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: May 18, 2022

**Keros Therapeutics Announces Preliminary Topline Results from its Ongoing Phase 1 Clinical Trial Evaluating KER-012 in Healthy Volunteers**

**LEXINGTON, Mass., – May 18, 2022** – Keros Therapeutics, Inc. (“Keros”) (Nasdaq: KROS), a clinical-stage biopharmaceutical company focused on the discovery, development and commercialization of novel treatments for patients suffering from hematological and musculoskeletal disorders with high unmet medical need, today announced preliminary topline results from Part 1 of its Phase 1 clinical trial evaluating single and multiple ascending doses of KER-012 in healthy postmenopausal volunteers.

The ongoing trial is designed as a randomized, double-blind, placebo-controlled, two-part trial to assess the safety, tolerability and pharmacokinetics of KER-012. In Part 1 of this ongoing trial, 32 subjects received either a single 0.75, 1.5, 3 or 5 mg/kg dose of KER-012 and eight subjects received a single dose of placebo, each administered subcutaneously with an eight-week safety follow-up. The subjects were enrolled in sequential single-ascending dose escalation cohorts of ten subjects each.

KER-012 was generally well tolerated in Part 1 of this trial at dose levels up to 5 mg/kg, the highest dose level tested, when administered as a single dose. While one subject withdrew consent after receiving a single 1.5 mg/kg dose of KER-012 and did not complete the safety follow-up, there were no discontinuations due to treatment-related adverse events in Part 1 of this trial. No serious adverse events were reported in Part 1 of this trial. Additionally, the majority of the adverse events that were observed in Part 1 of this trial were mild in severity.

Preliminary topline results from Part 1 of this trial include the following:

- Pharmacokinetic parameters were observed to be generally dose proportional with increasing doses.
- Maximal target engagement was observed following a single 5 mg/kg dose of KER-012, with a mean (standard deviation, “SD”) 39.6 (12.7)% reduction in follicle-stimulating hormone levels observed on Day 22.
- Robust increases in markers of bone formation were observed:
  - Bone specific alkaline phosphatase increased, starting at the lowest dose of 0.75 mg/kg, with mean (SD) maximum increases from baseline of 36.4 (4.0)% at the highest dose of 5 mg/kg.
- No clinically meaningful changes in red blood cells or hemoglobin were observed in Part 1 of this trial.

“We are pleased to report the preliminary topline findings from Part 1 of the Phase 1 clinical trial in KER-012, as we observed target engagement and changes in bone remodeling markers consistent with the restoration of signaling of the bone morphogenetic protein (“BMP”) pathway, with no clinically meaningful observed changes in red blood cells or hemoglobin,” said Jasbir S. Seehra, Ph.D., President and Chief Executive Officer of Keros. “We believe these results support the potential of KER-012 as a treatment for diseases that are associated with reduced BMP signaling, such as pulmonary arterial hypertension (“PAH”), without a potentially dose-limiting red blood cell effect.”

Part 2 of this trial is ongoing, with dosing for Cohort 3 of Part 2 initiated at 4.5 mg/kg of KER-012, to be administered once every four weeks for three doses. Keros expects to report data from Part 2 of this trial in the second half of 2022.

Following the completion of this Phase 1 clinical trial, Keros expects to initiate a Phase 2 clinical trial of KER-012 in patients with PAH, and expects to share the trial design for the Phase 2 clinical trial in early 2023.

## **Conference Call and Webcast**

Keros will host a conference call and webcast today, May 18, 2022 at 8:00 a.m. Eastern time to discuss the topline results from Part 1 of the KER-012 Phase 1 clinical trial. The conference call will be webcast live at [https://event.webcasts.com/starthere.jsp?ei=1548072&tp\\_key=90cb438f4c](https://event.webcasts.com/starthere.jsp?ei=1548072&tp_key=90cb438f4c). The live teleconference may be accessed by dialing (877) 405-1224 (domestic) or (201) 389-0848 (international). An archived version of the call will be available in the Investors section of the Keros website at <https://ir.kerostx.com/> for 90 days following the conclusion of the call.

## **About KER-012**

KER-012 is designed to bind to and inhibit the signaling of TGF- $\beta$  ligands that suppress bone growth, including activin A and activin B. Keros believes that KER-012 has the potential to increase the signaling of BMP pathways through this inhibition of activin A and activin B signaling, and consequently treat diseases such as PAH that are associated with reduced BMP signaling due to inactivating mutations in the BMP receptors. KER-012 is being developed for the treatment of PAH and for the treatment of disorders associated with bone loss, such as osteogenesis imperfecta and osteoporosis.

## **About Keros Therapeutics, Inc.**

Keros is a clinical-stage biopharmaceutical company focused on the discovery, development and commercialization of novel treatments for patients suffering from hematologic and musculoskeletal disorders with high unmet medical need. Keros is a leader in understanding the role of the transforming growth factor-beta family of proteins, which are master regulators of red blood cell and platelet production as well as of the growth, repair and maintenance of muscle and bone. Keros' lead protein therapeutic product candidate, KER-050, 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' lead small molecule product candidate, KER-047, is being developed for the treatment of anemia resulting from iron imbalance. Keros' third product candidate, KER-012, is being developed for the treatment of PAH and for the treatment of disorders associated with bone loss, such as osteoporosis and osteogenesis imperfecta.

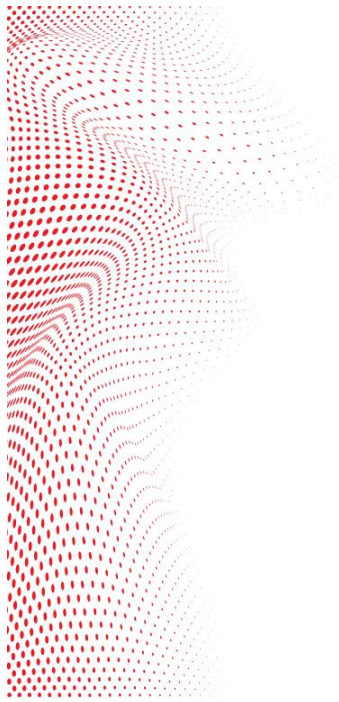
## **Cautionary Note Regarding Forward-Looking Statements**

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 "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 and timing of its clinical trials for KER-012; and the potential of KER-012 to treat diseases such as PAH without a dose-limiting red blood cell effect. 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 lead product candidates, KER-050 and KER-047; 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; Keros' dependence on third parties in connection with manufacturing, clinical trials and pre-clinical studies; and risks relating to the impact on our business of the COVID-19 pandemic or similar public health crises.

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 May 5, 2022, 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.

**Investor Contact:**

Justin Frantz  
jfrantz@soleburytrout.com  
617-221-9100



## Corporate Update

May 2022

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## Disclaimer

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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.



## Introductions

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- Jasbir Seehra, President and Chief Executive Officer
- Keith Regnante, Chief Financial Officer
- Simon Cooper, Chief Medical Officer
- Jenn Lachey, Chief Scientific Officer
- Christopher Rovaldi, Chief Operating Officer



## Harnessing the Powerful Biology of the TGF- $\beta$ Superfamily

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- Clinical-stage biopharmaceutical company developing novel therapeutics that target the TGF- $\beta$  superfamily
- Leveraging our extensive experience in TGF- $\beta$  superfamily protein structure, function and protein engineering to generate a clinical pipeline of differentiated therapeutics:

### *Hematology*

#### **KER-050:** Modified activin receptor IIA (ActRIIA) ligand trap

- Designed to address ineffective hematopoiesis by modulating TGF- $\beta$  superfamily signaling
- Potential to correct multiple cytopenias in patients with MDS and myelofibrosis (MF)

#### **KER-047:** Activin receptor-like kinase-2 (ALK2) inhibitor

- Designed to address anemias resulting from iron imbalance
- Potential to treat iron-refractory iron deficiency anemia (IRIDA), iron deficiency anemia and other diseases

### *Pulmonary and Musculoskeletal*

#### **KER-012:** Modified activin receptor IIB (ActRIIB) ligand trap

- Designed to inhibit vascular remodeling and bone loss
- Potential to treat pulmonary arterial hypertension (PAH) and bone loss in osteogenesis imperfecta and osteoporosis

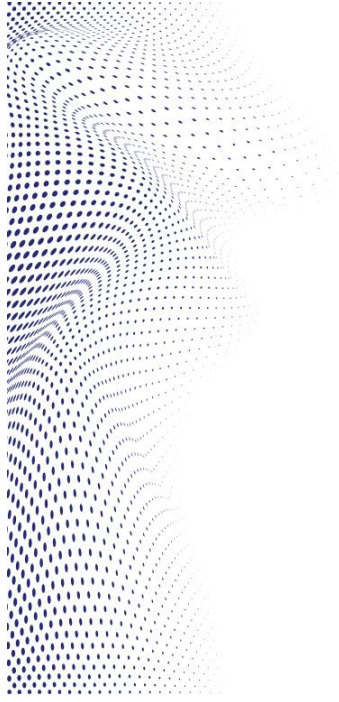


# Keros is Developing Differentiated Clinical Assets in Hematological and Musculoskeletal Disorders

Program	Asset	Phase of Development				Status	Next Milestones*
		Preclinical	Phase 1	Phase 2	Phase 3		
Hematology	KER-050 (therapeutic protein)	Myelodysplastic syndromes				Phase 2 clinical trial ongoing	Additional data from the Phase 2 clinical trial: mid-2022
		Myelofibrosis				Phase 2 clinical trial ongoing	Initial data: End of 2022
	KER-047 (small molecule)	Iron deficiency anemia				Completed Phase 1 clinical trial	Initiate Phase 2 clinical trial: H1 2022 Initial data: End of 2022
		Anemia from high hepcidin					Initiate Phase 2 clinical trial: H1 2022 Initial data: End of 2022
Pulmonary	KER-012 (therapeutic protein)	Pulmonary arterial hypertension				Phase 1 clinical trial in healthy volunteers ongoing	Additional data from Part 2 of the Phase 1 clinical trial: H2 2022
Musculoskeletal		Bone disorders					
Preclinical Pipeline		Musculoskeletal and hematology					



\*Anticipated clinical milestones are subject to the impact of COVID-19 on our business.

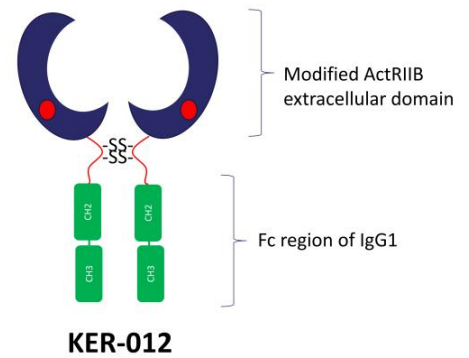


## **KER-012**

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## KER-012 is Designed to Address PAH and Bone Disorders

- KER-012 is a proprietary, wholly-owned, investigational ligand trap
  - Modified ActRIIB fused to the Fc region of IgG1
- KER-012 is designed to bind and inhibit activins and SMAD 2/3 signaling
- In preclinical studies, a research form of KER-012 (RKER-012):
  - Reduced inflammation, fibrosis and vascular remodeling in a rat Sugen/hypoxia model of PAH
  - Increased trabecular bone volume, bone volume fraction, trabecular number, trabecular thickness and reduced trabecular separation in the Sugen/hypoxia rat model
  - Did not increase red blood cells (RBCs) in rodents or cynomolgus monkeys in single and multiple dose studies
- Phase 1 clinical trial in healthy postmenopausal volunteers is ongoing

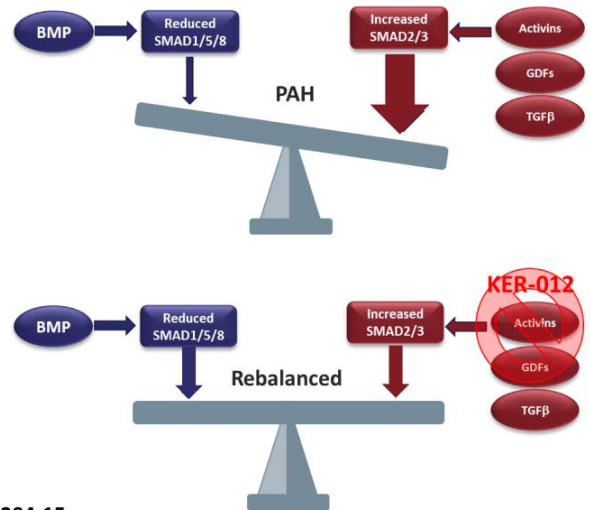


## Role of TGF- $\beta$ in Pulmonary Arterial Hypertension

Pulmonary arterial hypertension (PAH) is a debilitating disorder characterized by elevated pulmonary vascular resistance, resulting in diminished oxygenation, impaired cardiac output, and right ventricle (RV) overload

PAH is associated with imbalanced TGF- $\beta$  superfamily signaling, including insufficient SMAD 1/5/8 signaling\*

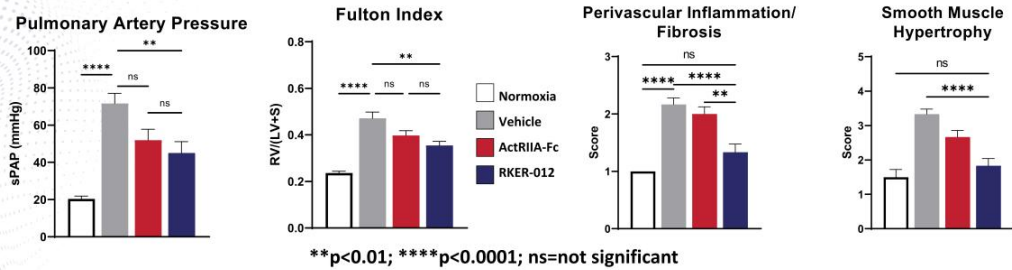
A third-party Phase 2 clinical trial demonstrated that rebalancing SMAD signaling by inhibiting ligands that bind ActRIIA provided benefit but was accompanied by a potentially dose-limiting increase in red blood cells (RBCs)\*



\*Data from: Humbert, M. et. al., N Engl J Med 2021;384:1204-15

# RKER-012 Reduced Pulmonary Arterial Pressure and Right Ventricle (RV) Hypertrophy in a Rat PAH Model

In a head-to-head preclinical study, ActRIIA-Fc and RKER-012 demonstrated activity in the Sugen/hypoxia rat model of PAH:



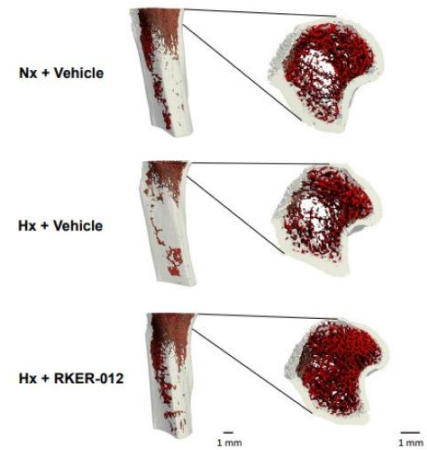
- Hypoxic rats were dosed with vehicle, ActRIIA-Fc (10 mg/kg) or RKER-012 (10 mg/kg), twice weekly for three weeks
  - Normoxic rats were dosed with vehicle
- Relative to vehicle-treated hypoxic rats, RKER-012:
  - Statistically significantly reduced RV hypertrophy and pulmonary arterial pressure
  - Statistically significantly reduced lung inflammation, fibrosis and smooth muscle hypertrophy
- RKER-012 consistently showed a trend towards improved activity relative to ActRIIA-Fc in this preclinical study





## RKER-012 Prevented Bone Loss in a Rat PAH Model

- In a separate preclinical study, RKER-012 demonstrated activity in improving bone mass in the Sugen/hypoxia rat model of PAH
  - Hypoxic rats were dosed with vehicle or RKER-012 (20 mg/kg), twice weekly for four weeks
  - Normoxic rats were dosed with vehicle
- Hypoxic rats dosed with vehicle exhibited decreased bone volume, bone volume fraction and trabecular number, and increased trabecular separation compared to normoxic controls
- RKER-012 prevented loss of bone volume, bone volume fraction, trabecular number, and reduced trabecular separation that was observed in vehicle-treated hypoxic rats
- Taken together, we believe this preclinical data suggests that:
  - RKER-012 potentially inhibited activins and growth differentiation factor ligands (GDFs), which are negative regulators of bone
  - Inhibition of activins and GDFs also potentially facilitated signaling of bone morphogenetic proteins (BMPs), factors that promote bone growth
  - RKER-012 protected rats from PAH-induced bone loss



(Left) Representative three-dimensional of the tibia demonstrating trabecular architecture is reduced in Hx + Vehicle compared to Nx + Vehicle and Hx + RKER-012. (Right) Transverse cross section of the proximal tibia depicting trabecular (red) and cortical (opaque) bone; Scale bar = 1 mm.



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**A Randomized, Double-Blind, Placebo Controlled, Two-Part, Dose-Escalation Phase 1 Clinical Trial to Evaluate the Safety, Tolerability, Pharmacokinetic, and Pharmacodynamic Effects of KER-012 in Healthy Post Menopausal Women**

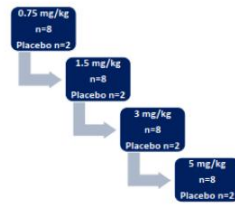
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# Phase 1 Clinical Trial of KER-012 in Healthy Post-Menopausal Women

Ongoing randomized, double-blind, placebo-controlled, two-part Phase 1 clinical trial to evaluate single and multiple ascending doses of KER-012 in healthy post-menopausal women

## Phase 1 Clinical Trial Design

### Part 1: Single Ascending Dose (Double-blinded)



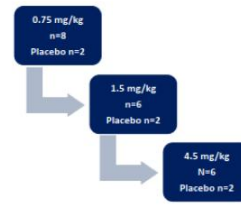
Treatment period: 4 weeks  
Safety follow up: 4 weeks  
Single subcutaneous dose

**Part 1 endpoints:** safety, pharmacokinetics (PK) and biomarkers

**Status:** Completed; topline data shared in this presentation



### Part 2: Multiple Ascending Dose (Double-blinded)



Treatment period: 12 weeks  
Safety follow up: 4 weeks  
Three subcutaneous doses  
(28 days apart)

**Part 2 endpoints:** safety, PK, biomarkers and total body scan by dual-energy x-ray absorptiometry (DXA)

**Status:** Part 2 ongoing; expected to report data in H2 2022

## Key Inclusion and Exclusion Criteria

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### Inclusion:

- Postmenopausal female aged 45 to 70 years (inclusive) at screening
  - NOTE: Postmenopausal is defined as  $\geq 6$  months of spontaneous amenorrhea OR 6 weeks postsurgical bilateral oophorectomy with or without hysterectomy
- Serum follicle-stimulating hormone (FSH) levels  $> 40$  IU/L

### Exclusion:

- Clinically significant (as determined by the investigator) cardiac, endocrinologic, hematologic, hepatic, immunologic, metabolic, urologic, pulmonary, neurologic, dermatologic, psychiatric, renal, and/or other major disease
- History of osteoporosis or any past treatment for osteoporosis
- Hormone replacement therapy (i.e., estrogen, or estrogen plus progesterone) within 3 months prior to dosing or plans to begin hormone replacement therapy at any time during the study. Local estrogen therapy for vaginal atrophy is permitted
- Systemic glucocorticoid therapy for more than 1 month within 6 months before screening
- Medications that may affect muscle function, including muscle anabolic agents and high intensity statins, within 3 months prior to dosing (moderate stable doses of statins are permitted)
- Antiresorptive and anabolic osteoporosis treatments within 1 year prior to dosing



## Demographics and Disposition (Part 1 SAD)

	PBO (N=8)	0.75 mg/kg (N=8)	1.5 mg/kg (N=8)	3.0 mg/kg (N=8)	5.0 mg/kg (N=8)	All Subjects (N=40)
<b>Age, years</b> mean (range)	56.0 (48 - 60)	58.3 (52 - 70)	54.9 (50 - 59)	57.8 (50 - 66)	59.3 (53 - 68)	57.2 (48 - 70)
<b>Race, n (%)</b>						
White	8 (100)	8 (100)	8 (100)	7 (87.5)	8 (100)	39 (97.5)
Multiple*	0	0	0	1 (12.5)	0	1 (2.5)
<b>Weight, kg</b> mean (SD)	68.4 (10.09)	71.6 (9.60)	67.5 (8.05)	68.1 (9.49)	67.1 (10.35)	68.6 (9.19)
<b>FSH, IU/L</b> mean (SD) [range]						
at Screening	88.9 (16.34) [62, 107]	75.5 (19.87) [56, 112]	95.0 (22.93) [64, 133]	77.9 (26.31) [60, 127]	91.0 (35.02) [45, 146]	85.6 (25.02) [45, 146]
at C1D1	70.4 (28.91) [18, 105]	53.3 (28.16) [26, 103]	86.5 (16.64) [64, 109]	49.5 (23.65) [21, 92]	87.1 (35.49) [63, 162]	68.9 (30.18) [18, 162]
%chg from SCRN	-16.9 (35.65) [-83.2, 11.9]	-31.9 (23.02) [-58.3, 1.1]	-7.7 (8.78) [-18.3, 7.1]	-33.3 (24.57) [-83.5, 2.6]	4.4 (17.71) [-17.0, 40.0]	-17.7 (26.38) [-83.5, 40.0]
<b>Disposition</b>						
<b>Completed Study, n (%)</b>	8 (100%)	8 (100%)	7 (87.5%)	8 (100%)	8 (100%)	39 (97.5)
<b>Discontinuation, n (%)</b>	0	0	1** (12.5%)	0	0	1** (2.5)

\* More than one race was reported.  
\*\* 1 subject prematurely discontinued after receiving KER-012 due to withdrawal of consent.

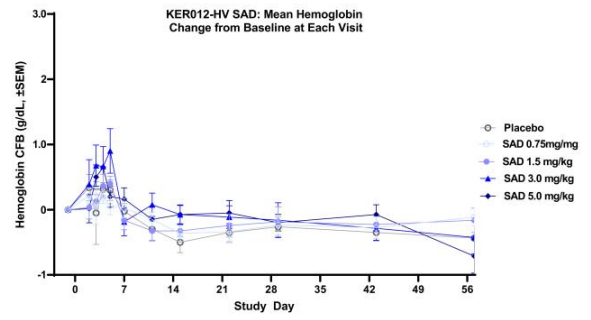
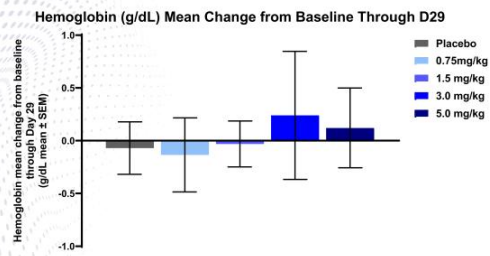
## Safety, Tolerability and PK (Part 1 SAD)

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- KER-012 was generally well tolerated at doses up to 5 mg/kg when administered as a single dose
- There were no serious adverse events observed in Part 1
- The majority of adverse events observed in Part 1 were mild in severity (CTCAE Grade 1)
- No clinically meaningful changes in hemoglobin (Hgb), RBCs or reticulocytes were observed at doses up to 5 mg/kg when administered as a single dose
- PK parameters were generally dose proportional with increasing doses



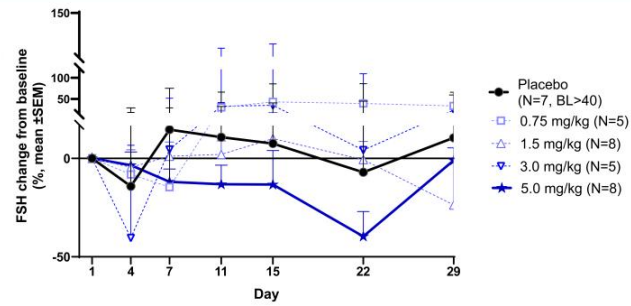
# No Clinically Meaningful Change in Hgb Observed with KER-012 Administration of up to 5 mg/kg



- Single dose of KER-012 was not associated with clinically meaningful changes in Hgb at all doses in Part 1 of this trial



## KER-012 Administration Resulted in 40% Mean Decrease in FSH at 5 mg/kg Dose

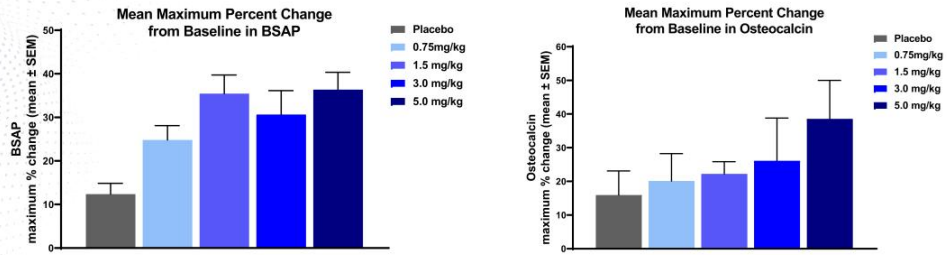


- As per the study protocol, only participants with baseline FSH  $\geq 40$  IU/L were included in the analysis for the changes in FSH with KER-012 treatment
  - Some of the participants that met the  $\geq 40$  IU/L criteria for FSH at screening dropped below the inclusion criteria at baseline
- A single dose of 5 mg/kg resulted in a 40% mean decrease in FSH on Day 22





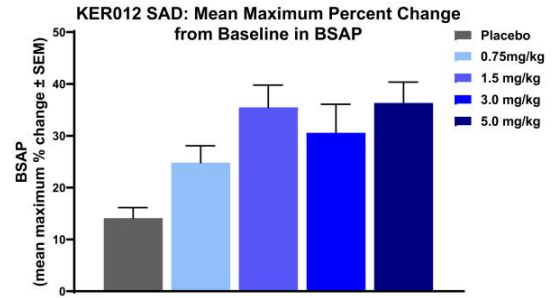
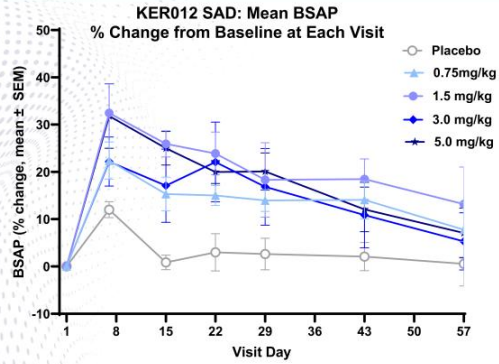
## Robust Increase in Markers of Bone Formation Observed



- KER-012 is designed to inhibit activins and GDFs in the bone, which we believe potentially results in reduced SMAD 2/3 signaling and increased signaling of bone morphogenetic protein (BMP) pathway (SMAD1/5/8)
  - The increased BMP signaling potentially promotes bone formation through activation/recruitment of bone forming osteoblasts and repression of osteoclasts
- Increased serum markers of osteoblast activity were observed in trial participants who were administered KER-012
  - Including bone specific alkaline phosphatase (BSAP), procollagen type 1 N-terminal propeptide (P1NP) and osteocalcin



## Observed Mean Maximal Increase in BSAP at Doses of 1.5 mg/kg and Higher



- A single 0.75 mg/kg dose of KER-012 elicited a 25% mean maximum increase in BSAP, which is supportive of osteoblast activation/recruitment in bone
- A 35% mean maximum increase in BSAP was observed following a single 1.5 mg/kg dose of KER-012



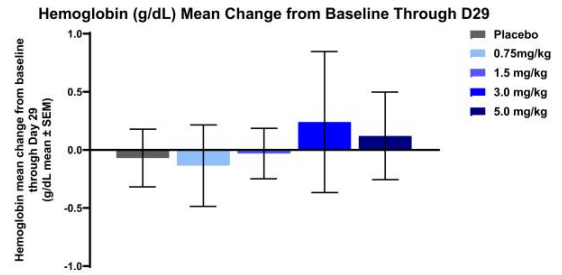
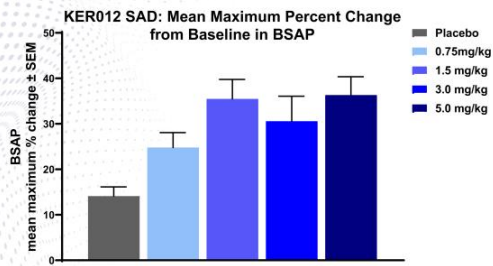
## KER-012 Part 1 SAD Summary

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- KER-012 was generally well tolerated at all doses up to 5 mg/kg when administered as a single dose in healthy postmenopausal women
- KER-012 was associated with generally dose proportional exposure
- Maximal target engagement was observed following a single 5 mg/kg dose of KER-012 (40% mean reduction in FSH on Day 22)
- No clinically meaningful changes in Hgb or RBCs were observed at doses up to 5 mg/kg when administered as a single dose
- Robust changes in markers of bone formation were observed, starting at the lowest dose of 0.75 mg/kg
- Mean maximal increases in BSAP as high as 35% were observed at the higher dose cohorts (1.5, 3 and 5 mg/kg), which is similar to the mean maximal increase observed with other ligand traps, including KER-050
- The observed KER-012-mediated increases in BSAP are consistent with restoration of BMP signaling; Keros believes this supports the development of KER-012 as a potential treatment for patients with PAH, which is associated with reduced BMP signaling
- Keros believes the preclinical data and data from Part 1 of its ongoing Phase 1 clinical trial support that KER-012 has the potential to treat patients with PAH without a potentially dose-limiting red blood cell effect, if approved



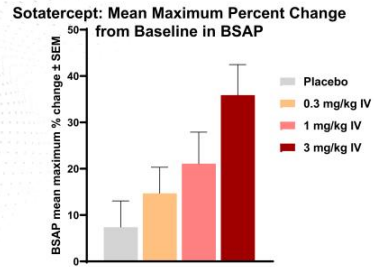
# KER-012 Elicited Maximum Increases in Bone-Specific Alkaline Phosphatase (BSAP)



- Increasing doses of KER-012 was observed to elicit maximal target engagement
  - Observed FSH decrease of up to 40%
  - Observed increases in BSAP, P1NP and osteocalcin
- Mean maximal increases in BSAP were observed at the higher dose cohorts (1.5, 3 and 5 mg/kg) with a single dose of KER-012
- No clinically meaningful changes in hemoglobin were observed following single doses of KER-012 ranging from 0.75 to 5.0 mg/kg



# Sotatercept Increased BSAP Concurrently with Observed Increases in Hemoglobin in a Third-Party Phase 1 Clinical Trial\*



Dose (iv) (mg/kg)	Placebo	0.3	1.0	3.0
Max change in Hemoglobin (g/dL)	0.4	1.7	1.7	2.4
Standard Deviation	0.3	0.6	0.6	0.7

- Results from a third-party single ascending dose Phase 1 clinical trial of sotatercept in healthy postmenopausal women was previously reported\*
- Dose dependent increases in BSAP were observed with sotatercept\*
- Sotatercept elicited mean maximal target engagement in BSAP at 3.0 mg/kg (i.v.)\*
- Treatment with a single dose of sotatercept resulted in sustained increase in hemoglobin\*



\*All data on this slide from: Ruckle, J. et. al., JMBR 2009;24:744-752

## KER-012: Next Steps

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- Part 2 of this trial (multiple ascending dose) is ongoing; expected to report data in H2 2022
  - Expect to confirm SAD biomarkers and include changes in bone mineral density by dual-energy x-ray absorptiometry
- Keros expects to initiate a Phase 2 clinical trial of KER-012 in PAH patients following the completion of the Phase 1 clinical trial
  - Keros expects to announce the design of this Phase 2 clinical trial in early 2023



## Anticipated Key Milestones\*

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### KER-050

- Announce additional data from Phase 2 trial in MDS
- Announce initial data from Phase 2 trial in myelofibrosis

Mid-2022 (EHA 2022)

End of 2022

### KER-047

- Initiate Phase 2 trial in IDA
- Initiate Phase 2 trial in IRIDA

H1 2022 (initial data end of 2022)

H1 2022 (initial data end of 2022)

### KER-012

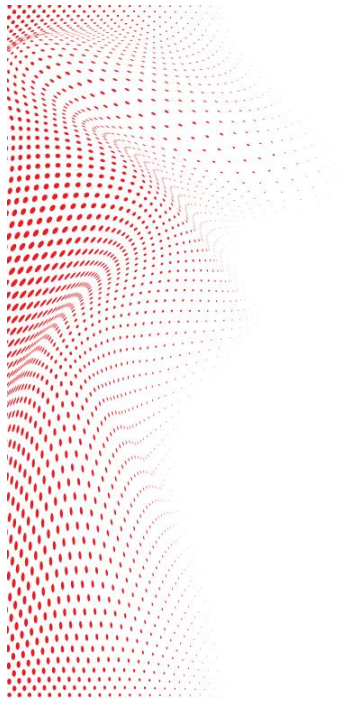
- Announce additional data from Part 2 of Phase 1 trial
- Announce design of Phase 2 trial in PAH

H2 2022

Early 2023



\*Anticipated clinical milestones are subject to the impact of COVID-19 on our business.



## Q&A

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