Akebia Therapeutics, Inc.

BIO CEO & Investor Conference
February 2015

Forward-Looking Statements

This presentation has been prepared by Akebia Therapeutics, Inc. for informational purposes only and not for any other purpose. Nothing contained in this presentation is, or should be construed as, a recommendation, promise or representation by the presenter or Akebia Therapeutics or any director, employee, agent, or advisor of Akebia Therapeutics. This presentation does not purport to be all-inclusive or to contain all of the information you may desire.

Certain information contained in this presentation and statements made orally during this presentation relate to or are based on information from industry publications and research, surveys and studies conducted by third parties. Industry publications and third party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. While Akebia Therapeutics believes these industry publications and third party research, surveys and studies are reliable, it has not independently verified such data.

This presentation includes forward-looking statements. Such forward-looking statements include those about Akebia's strategy, future plans and prospects, including statements regarding the potential indications and benefits of AKB-6548, plans for presenting a more detailed analysis of the data from the Phase 2b study, the development plan for the Phase 3 study including discussions with regulatory authorities, the expected timing of results from the Phase 2 study in dialysis patients with anemia related to CKD, and the potential of AKB-6548 to be a "best-in-class" drug. The words "anticipate," "appear," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Each forward-looking statement is subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statement, including the risk that existing preclinical and clinical data may not be predictive of the results of ongoing or later clinical trials; the ability of Akebia to successfully complete the clinical development of AKB-6548; the funding required to develop Akebia's product candidates and operate the company, and the actual expenses associated therewith; the acceptance of Akebia's abstract for presentation at a medical meeting; the timing and content of decisions made by the FDA and other regulatory authorities; the rate of enrollment in the Phase 2 study; the actual time it takes to complete the Phase 2 study and analyze the data; the success of competitors in developing product candidates for diseases for which Akebia is currently developing its product candidates; and Akebia's ability to obtain, maintain and enforce patent and other intellectual property protection for AKB-6548. Other risks and uncertainties include those identified under the heading "Risk Factors" in Akebia's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014, and other filings that Akebia may make with the Securities and Exchange Commission in the future. Akebia does not undertake, and specifically disclaims, any obligation to update any forward-looking statements contained in this presentation.

Investment thesis at a glance

- Akebia is a biopharmaceutical company focused on delivering innovative therapies to patients with kidney disease through the biology of hypoxia inducible factor (HIF)
- Lead program: AKB-6548 is a once-daily, oral therapy with best-in-class potential for the treatment of renal anemia
  - Positive Phase 2b non-dialysis study results announced Q4 2014
  - Phase 2 dialysis study initiated Q3 2014; enrollment complete and cohort expansion January 2015
  - Patent protection into 2028, up to 2033 with potential patent term extension
  - Plan to initiate Phase 3 program in 2015
  - Global commercial rights retained by Akebia
- $7 billion market despite major safety risks of rESAs; opportunity to drive growth with more effective, safer and convenient therapy
  - Strategy to commercialize in U.S. and leverage partnership opportunities internationally
  - Lifecycle opportunities in other indications and large markets
- Additional HIF-PH inhibitor compounds with potential to treat a broad range of serious diseases
  - AKB-6899: preparing IND application in 2015
- Experienced management team; track record of successful drug development and commercialization in renal and other markets
- Strong cash position $118.3 million 9/30/2014

AKB-6548 developed as the potential solution to treat renal anemia

Goals of Therapy

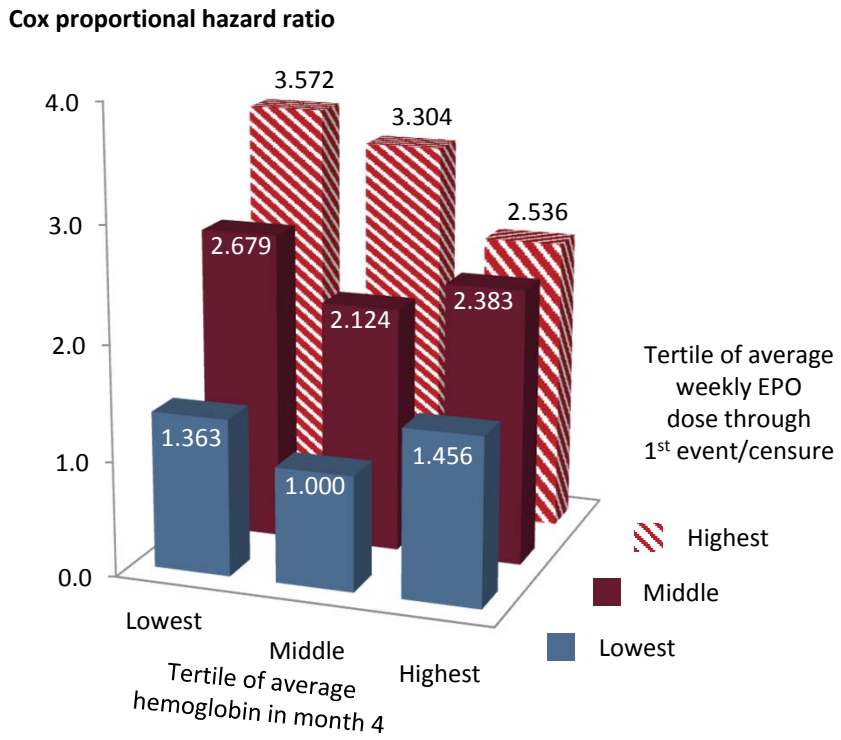
- Increase hemoglobin to target level **safely**
- **Avoid** excessive hemoglobin **fluctuations**
- **Avoid excursions** beyond level of 13g/dL
- **Avoid excessive EPO** levels

AKB-6548 Potential Solution

- **Raise hemoglobin levels predictably and sustainably**
- **Once-daily oral dosing regimen that enables a controlled titration**
- **Maintain EPO within physiological range**
- **Enhance iron utilization, reducing overall iron supplementation needs**

Excessive EPO levels and excessive hemoglobin fluctuations driving safety risk associated with use of injectable ESAs

Patients administered high doses of injectable ESA experienced increased mortality and adverse cardiovascular events



Source:
McCullough P.A. · Barnhart H.X. · Inrig J.K. · Reddan D. · Sapp S. · Patel U.D. · Singh A.K. · Szczech L.A. · Califf R.M. Am J Nephrol 2013;37:549-558 (DOI:10.1159/000351175); Permission granted by S. Karger AG, Basel.

Majority of patients treated with injectable ESAs strayed outside target hemoglobin range, with a high risk of excursions beyond 13 g/dL

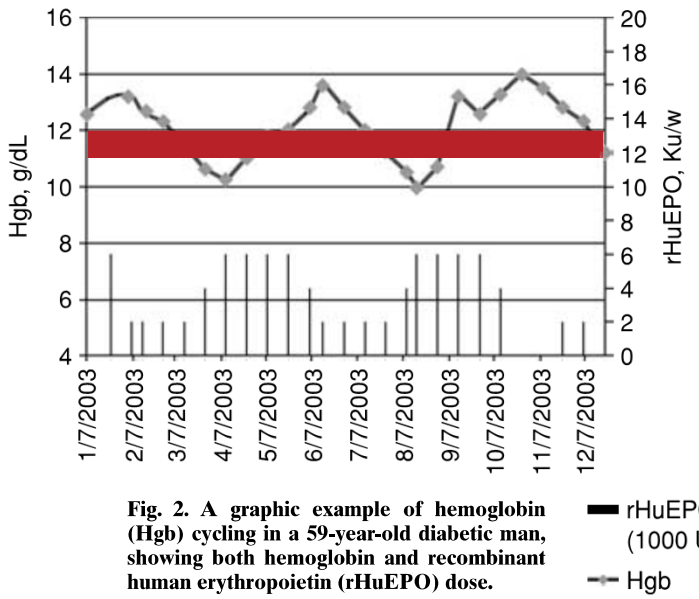


Fig. 2. A graphic example of hemoglobin (Hgb) cycling in a 59-year-old diabetic man, showing both hemoglobin and recombinant human erythropoietin (rHuEPO) dose.

Source:
Kidney International, Vol. 68 (2005), pp. 1337–1343. Hemoglobin cycling in hemodialysis patients treated with recombinant human erythropoietin. Fishbane et al.

Specific HIF response and pharmacodynamics drive AKB-6548 best-in-class potential

Approach: induce a physiological correction of anemia

- Maintain EPO within physiological range
- Enhance natural iron mobilization
- Reduce risk of excessive HGB increases or fluctuations
- Provide a targeted effect on erythropoiesis

Through HIF-2 preferential response and once-daily dosing with specific pharmacodynamics

- Follows natural daily cycle of EPO
- Daily return to baseline EPO levels
- Physiological effect on reticulocytes(1)
- Limit potential for effect on other HIF-regulated functions, which are typically HIF-1 mediated

(1) Red blood cells precursors.

Robust development program designed to demonstrate AKB-6548's potential as treatment of choice for renal anemia

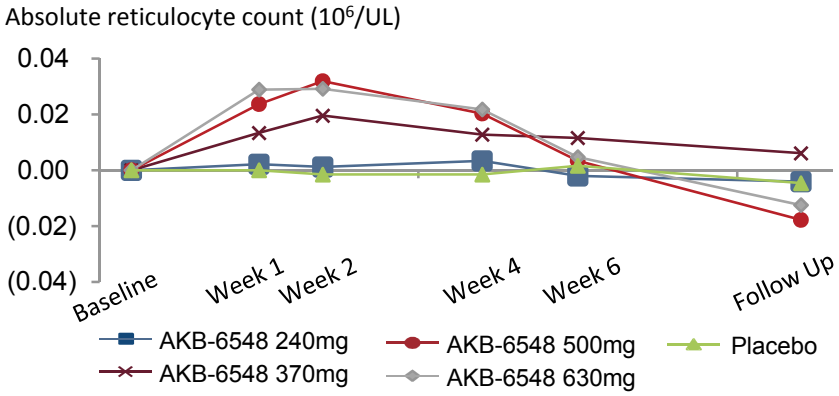
Study	Design	Size	Goals
Initial and pilot studies	Open-label, single dose and dose escalation studies, PK, placebo-controlled	130 patients treated 109 patients on drug	• Establish safety & tolerability • Induce diurnal EPO response • Select dose for HGB response
Phase 2a	Double-blind Randomized Placebo-controlled 4 dose groups 6 weeks dosing	91 patients treated 72 patients on drug	• Physiologic EPO response • Physiologic reticulocyte increase • Dose-dependent increase in HGB • Dose-dependent iron mobilization • Limit risk of excessive HGB >13 g/dL
Phase 2b	Double-blind Randomized (2:1) Placebo-controlled Dosing algorithm 20 weeks dosing	209 patients treated 138 patients on drug	• Control dose titration • Maintain stable HGB levels • Limit risk of excessive HGB >13 g/dL • Confirm adaptive dosing algorithm • Confirm safety profile

Demonstrate potential to address unmet needs and avoid black box warning
Over 20,000 patient exposure days

Positive Phase 2a study results confirmed physiologic response and dose-dependent increase in hemoglobin and iron mobilization

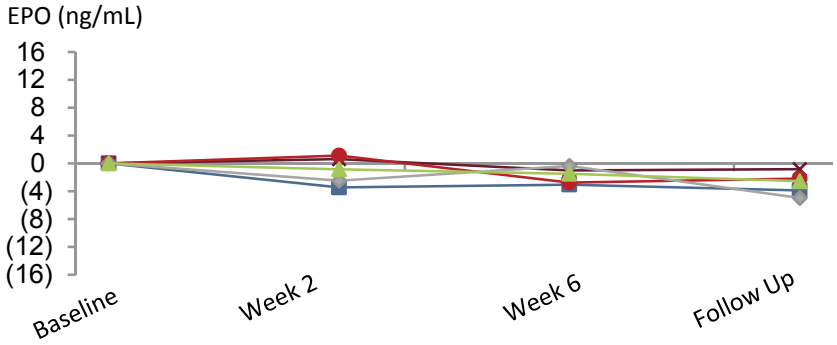
Induce normal physiologic response

AKB-6548's Effect on Reticulocytes

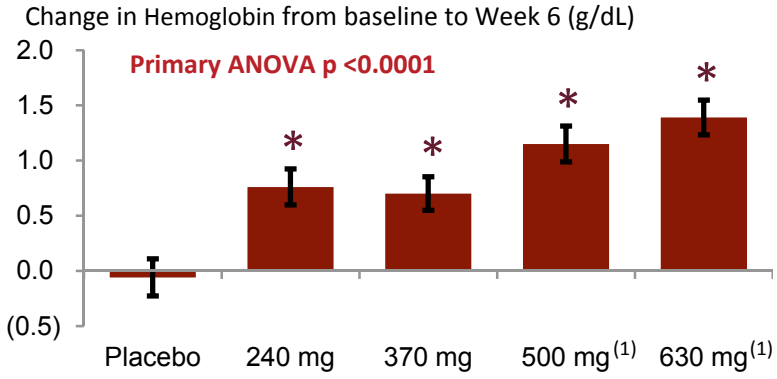


No increase in pre-dose EPO level (baseline)

AKB-6548's Effect on basal EPO levels

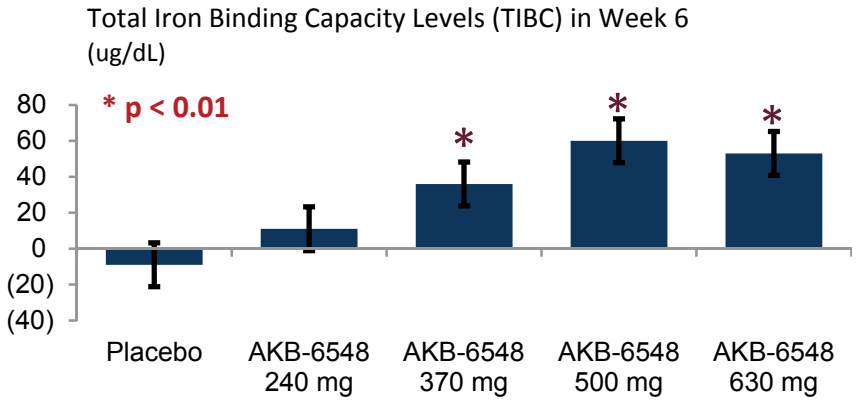


Dose-dependent HGB increase with no excursion >13 g/dL



(1) 25% of patients in 630mg and 10% of patients in 500mg had their doses reduced by Week 4.
*Two tailed paired t-test of hemoglobin: Baseline vs. Week 6 p <0.01.

Dose-dependent iron mobilization (TIBC)



AKB-6548 was generally well tolerated in Phase 2a, with no change from baseline on key biomarkers: VEGF, CRP, Cystatin-C

		AKB-6548 N = 72	Placebo N = 19
Treatment Emergent Adverse Events	Evenly distributed across dosing groups No apparent dose-related effect	34 (47.2%)	11 (57.9%)
Serious Adverse Events (SAEs)	No signal or pattern identified No apparent dose-related effect None drug-related	7 (9.7%)	1 (5.3%)
Deaths	None drug-related Followed in-hospital procedure	1	0

Biomarkers

No statistically significant change in any biomarker or vital signs

- inflammation (C-reactive protein)
- renal function (Cystatin-C)
- heart rate, blood pressure and EKG values (including QT assessments)

Favorable safety profile observed in the Phase 2a study

Phase 2b randomized, double-blind, placebo-controlled study of AKB-6548 in patients with CKD not on dialysis

Patient Criteria

Randomized 2:1 active treatment to placebo

- Group 1: (50%) rESA naïve with HGB ≤10.5 g/dL(1)
- Group 2: (30%) Previously treated with HGB ≤10.5 g/dL and off rESA >11 weeks(1)
- Group 3: (20%) Actively treated(2) with HGB ≥ 9.5 and ≤ 12.0 g/dL(1)(3)

20 Weeks of Treatment Follow-up = 4 weeks

Initiate treatment at 450 mg; adjust dose according to hemoglobin response

Placebo

AKB-6548

All patients receive oral iron therapy to maintain Ferritin between 50 – 300 ng/mL

Endpoints

Percent of subjects:

1. Achieving or maintaining mean HGB ≥11.0 g/dL (average of weeks 19 and 20)

OR

2. Increasing HGB by ≥ 1.2 g/dL (average of weeks 19 and 20) over their pre-dose average

rESA Rescue

Allow rescue with rESA after week 6 if worsening anemia

(1) At the time of screening.
(2) Subjects being actively and consistently treated with a stable dose of an rESA for a minimum of 4 months prior to screening, and where the dose of rESA has not changed during the last two dose administrations.
(3) Subjects will have their rESA discontinued prior to randomization. Randomization and first dose of study medication in Group 3 should occur at approximately the same time that the subject would have otherwise received the next dose of their prior rESA therapy.

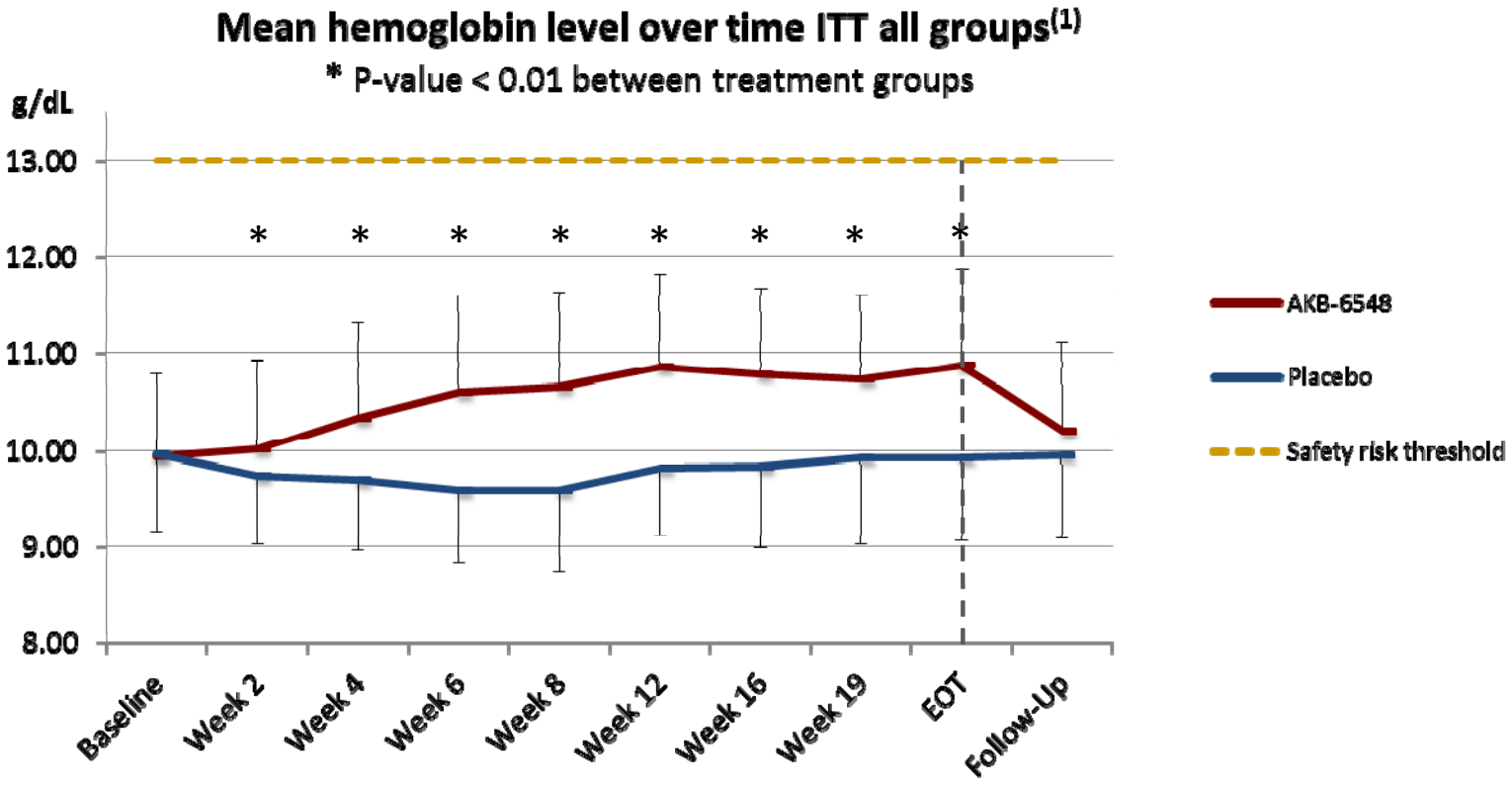
Phase 2b patient population well balanced between the two groups and representative of later stages of CKD

		AKB-6548	Placebo
Subjects dosed (ITT population)[1]		138 (100.0%)	72 (100.0%)
Mean age (years)		66.6	65.9
Mean eGFR (mL/min/1.73m^2)		25.2	25.0
CKD status	**G3 a/b**	36 (26.1%)	18 (25.0%)
	G4	85 (61.6%)	42 (58.3%)
	G5	17 (12.3%)	12 (16.7%)
Diabetes mellitus		106 (76.8%)	57 (79.2%)
Etiology of CKD[2]	**Diabetes**	103 (74.6%)	51 (70.8%)
	Hypertension	78 (56.6%)	36 (50.0%)
	Other	7 (5.0%)	11 (15.3%)
Mean urine albumin-to-creatinine ratio (mg/g)		1,145.5	1,454.6

(1) Intent-to-treat (ITT) population - all randomized subjects who received at least one dose of study medication. All safety analyses were performed using the ITT population.

(2) If subjects had more than one reason checked for etiology, all reasons were counted.

Controlled titration and sustained maintenance of HGB throughout 20-week treatment period with limited excursions >13 g/dL



Met primary endpoint (54.9% vs. 10.3%, P<0.0001)
Mean hemoglobin change of 1 g/dL
Only 4.4% of patients experienced excursions beyond 13 g/dL (6 patients)

(1) Mean +/- SDM

AKB-6548 was generally well tolerated in Phase 2b study, with no safety concern identified

		AKB-6548 N = 138	Placebo N = 72
TEAEs[1]	• Evenly distributed across groups • Consistent with previous studies	103 (74.6%)	53 (73.6%)
SAEs[2]	• No signal or pattern identified	33 (23.9 %)	11 (15.3%)
Deaths	• 1 was "possibly related" (lack of autopsy) • 2 were "not drug-related" • Based on TREAT and CHOIR, number of expected deaths was 2-4 in AKB-6548 and 1-2 in placebo	3	0
Non-renal SAEs	• 1 probably related, 2 possibly related • No signal or pattern identified	20 (14.5%)[3]	9 (12.5%)
Renal AEs	• Evenly distributed across groups	20 (14.5%)	10 (13.9%)
Renal SAEs	• Variability in classification • No signal or pattern identified	13 (9.4%)[3]	2 (2.8%)
	Dialysis initiations - objective measure for severity of renal events	10 (7.2%)[3]	7 (9.7%)[4]

Safety profile consistent with previous studies

(1) Treatment Emergent Adverse Events.
(2) Serious Adverse Events.
(3) Includes 3 SAEs that occurred > 3 weeks after end of treatment.
(4) Includes 1 AE that occurred > 1 week after end of treatment.

Positive Phase 2b study is a major milestone in CKD non-dialysis setting AKB-6548 on clear path to Phase 3

Studies	Design	Goals	Status
Initial and pilot studies	Open-label, single dose and dose escalation studies, PK, placebo-controlled	• Establish safety & tolerability • Induce diurnal EPO response • Select dose for HGB response	✓ ✓ ✓
Phase 2a	Double-blind Randomized Placebo-controlled 4 dose groups 6 weeks dosing	• Physiologic EPO response • Physiologic reticulocyte increase • Dose-dependent increase in HGB • Dose-dependent iron mobilization • Limit risk of excessive HGB >13 g/dL	✓ ✓ ✓ ✓ ✓
Phase 2b	Double-blind Randomized (2:1) Placebo-controlled Dosing algorithm 20 weeks dosing	• Control dose titration • Maintain stable HGB levels • Limit risk of excessive HGB >13 g/dL • Confirm adaptive dosing algorithm • Confirm safety profile	✓ ✓ ✓ ✓ ✓

Plan to initiate Phase 3 studies in 2015

AKB-6548 Phase 2 dialysis efficacy study data available Q3 2015

Patient Criteria

- n= 90
- Age: 18 – 79 years old
- CKD Stage 5 undergoing chronic hemodialysis for ≥ 3 months and dialysis 3x per week
- Mean HGB: ≥ 9.0 and ≤ 12.0 g/dL
- Receives epoetin alfa regularly

Open Label 16 Weeks of Treatment

1st analysis: change in HGB at Week 8

2nd analysis: subsequent change in HGB with dose adjustment starting at Week 8

AKB-6548
450 mg QD
Completed Enrollment

AKB-6548
300 mg QD
Completed Enrollment

AKB-6548
450 mg TIW
Additional Cohort Added Jan 2015

Endpoints

Primary endpoint

1. Compare the change in HGB from baseline for three different doses of AKB-6548

Secondary endpoint

1. Safety of AKB-6548 in ESRD subjects on dialysis
2. Total dose of IV iron therapy for the eight weeks prior to baseline to the first (1) and second (2) eight weeks of treatment
3. Effect of dialysis on the PK of AKB-6548

(1) First eight weeks include Weeks 1 – 8.
(2) Second eight weeks include Weeks 9 – 16.

Value drivers and capital position

Development

AKB-6548

- Renal anemia non-dialysis
- Renal anemia dialysis
- Geographic Partnerships
- *In planning*

Ph2b Full Data Presented

Phase 2 program publication

US & EU regulatory meetings

Phase 3 program

Phase 2

Ph2 Dialysis Top-Line

Phase 3 program

International Markets Partnerships

AKB-6899

- Oncology
- Ophthalmology
- *In planning*

Preclinical development

IND filing

Phase 1

Ph1 Complete

Preclinical development

Corporate

Capital

Cash: $118.3 million*

*Represents cash, cash equivalents and short-term investments as of 9/30/14.

Akebia investment highlights

- AKB-6548 is a once-daily, oral HIF-PH inhibitor with best-in-class potential to treat anemia related to chronic kidney disease (CKD)
  - Successfully raised and maintained HGB levels in rigorous Phase 2b trial
  - Phase 2 data readout in Q3 2015 for anemia related to CKD in non-dialysis patients
  - Advancing into Phase 3 registration studies in 2015
  - Global commercial rights with strong patent protection into 2028, with potential patent term extension
- $7 billion market despite major safety risks of rESAs; opportunity to drive growth with more effective, safer and convenient therapy
- AKB-6899: HIF-PH inhibitor in preclinical development and on track for IND application in Q3 2015
- Experienced management team with successful track record in renal drug development and commercialization
- Strong cash position with $118.3 million as of 9/30/2014

Questions