



KBP Biosciences CORPORATE PRESENTATION

February 2021

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Company Overview



- **Highly experienced** management team and board
- **Innovative pipeline** of differentiated New Chemical Entities with known mechanisms of action targeting areas of high unmet need, including
- **KBP-5074:** Completed international Phase 2b study focusing on uncontrolled hypertension in advanced (stage 3b/4) Chronic Kidney Disease (CKD) patients
 - First indication: Potential for \$1.9B in US alone
 - Favorable efficacy (UACR/BP)
 - Better safety (Hyper K+) profile
- **KBP-7072: Novel, Phase 2-ready broad-spectrum antibiotic**
 - Ability to discharge patients from hospital faster, coupled with unique effect on *Acinetobacter Baumannii*
 - *FDA Fast Track Designation for CABP and QIDP status for CABP*





KBP People

Experienced Global Management Team



Zhenhua Huang
Ph.D.

Executive Chairman, Founder
Serial entrepreneur, proven track record



Thijs Spoor
BPhm, MBA

Chief Executive Officer
Extensive capital markets and biotechnology executive experience



Douglas Losordo
M.D., Ph.D.

Chief Medical Officer
Professor at Northwestern University and global R&D, CMO experience



Fred Yang
Ph.D.

Chief Development Officer
End-to-end development experience and clinical/regulatory professional



Jerry Zhong
Ph.D., MBA., PMP

EVP, Project Management
PM leadership across development spectrum of multiple therapeutic areas



James McCabe
M.D.

VP, Clinical and Medical Affairs
Practicing clinical nephrologist



Experienced Global Management Team



Jay (Xu-Jie) Zhang
M.D., Ph.D.

VP, Biology

Scientific leader in Drug Metabolism and Pharmacokinetics



Vincent J. Benn
Ph.D., MBA

VP, Regulatory & Medical Affairs

Clinical and regulatory drug and biologics development experience



David Hauser
Ph.D.

VP, Project Management

Medical/regulatory writing, clinical PM and therapeutic experience



Chris Benson
CPA

Finance Controller

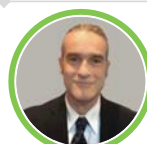
Public & private accounting and SEC reporting experience



Murphy Guo
Ph.D.

VP, CMC

Discovery chemistry, process research and development experience



Richard McGregor

Director, BD

Discovery chemistry, process research and development experience



World-Class Scientific Advisors



George Bakris, M.D.
University of Chicago
(US). Renal disease/HTN
expert



Bertram Pitt, M.D.
University of Michigan
(US), World class MRA/
CV disease expert



Katie Laessig M.D.
Senior Vice President RRD
International, LLC Former
Deputy Director, FDA DAIP



Faiez Zannad, M.D., Ph.D.
Lorraine University
(France), Chairman of the
French
Society of Hypertension



Dr. John McMurray, M.D.
University of Glasgow
(UK), Former chair of
EU Heart Failure
society



Richard Wunderink, M.D.
Professor of Medicine
Northwestern Univ
Infectious diseases
specialist



**Frédéric Jaisser, M.D.,
Ph.D.**
Paris-East Creteil
University (France),
Expert on MRA research



Clare Kahn, Ph.D.
(US) 30 yrs. of regulatory
experience, former VP
GSK/Pfizer



Paul Ambrose, PharmD
President at Institute for
Clinical
Pharmacodynamics



KBP Portfolio

Focus on KBP-5074/KBP-7072

Proprietary Discovery Platform to Fuel Pipeline



High-volume screening and optimization techniques for evaluating pharmacokinetics/ pharmacodynamics (PK/PD) and toxicology



Responsible for generating each of KBP's six novel drug candidates currently in clinical and preclinical development



Expected to consistently contribute new candidates to innovative pipeline

Substantial compound and bacteria libraries



KBP has built a small molecule compound library with over 3,000,000 chemical compounds



Bacteria collection has more than 30,000 isolates covering 33 species and more than 200 classes of strains

- Gram-positive and Gram-negative aerobic bacteria
- Anaerobic bacteria
- Clinical special pathogenic strains

Robust Clinical and Pre-Clinical Pipeline

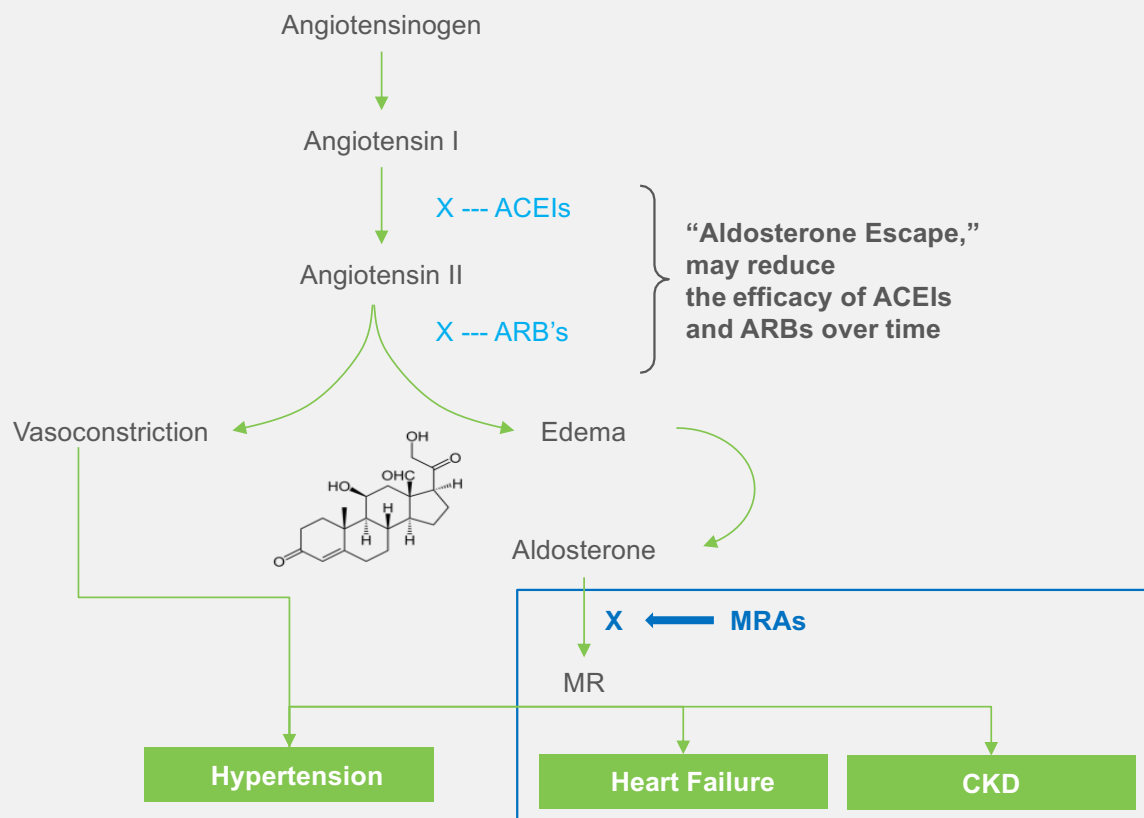


Program (Mechanism)	Indication(s)	Preclinical	Phase I	Phase II	Phase III
KBP-5074 (Non-steroidal MRA)	Uncontrolled Hypertension in Chronic Kidney Disease (Stage 3b/4)				
	Kidney Protection				
	Heart Failure				
KBP-7072 (3 rd generation tetracycline)	Aminomethycycline for drug resistant infections including ABSSSI, CABP & cIAI				
KBP-7026 (CRTH2 antagonist)	Reduction of eosinophilic inflammation				
KBP 8017 (Triple Kinase Inhibitor)	Fibrosis caused by radiotherapy / Delayed Effect of Acute Radiation Exposure				
KBP 7909 (LpxC Inhibitor)	Gram negative bacterial infections including multi-drug resistant <i>Pseudomonas aeruginosa</i>				

Acute Bacterial Skin and Skin Surface Infection (ABSSSI); Community Acquired Bacterial Pneumonia (CABP); Complicated Intra-Abdominal Infection (cIAI)

MRAs are Commonly Used in Blood Pressure Control – Contraindicated in Kidney Disease

Renin-Angiotensin-Aldosterone System (RAAS)

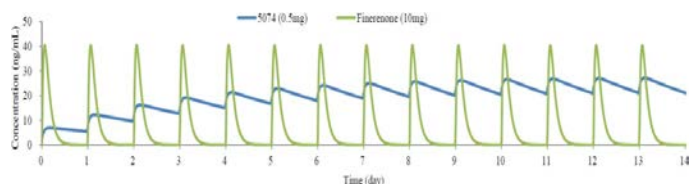


- Excess mineralocorticoid receptor (MR) activation leads to reabsorption of urinary sodium (Na⁺) and water, resulting in arterial blood pressure elevation
- Activation of MR by aldosterone or other mediators regarded as potent mediator of organ damage in heart, blood vessels, and kidney
- By binding to the MR and preventing activation, 1st (spironolactone) and 2nd (eplerenone) generation MRAs proven to offer blood pressure control and cardiorenal protection
- 1st & 2nd generation MRAs (both steroidal) associated with a potential life-threatening major side effect **Hyperkalemia**
- 3rd generation MRAs (non-steroidal) have lower risk of hyperkalemia
 - Finerenone: Lack of BP lower effect

Best In Class Potassium Safety Potential in CKD patients



Half life and high binding affinity



Longer $T_{1/2}$

Less fluctuation of PK over 24 hours

- 24-hour BP control

High MR affinity

Low/steady concentration with least disruption to:

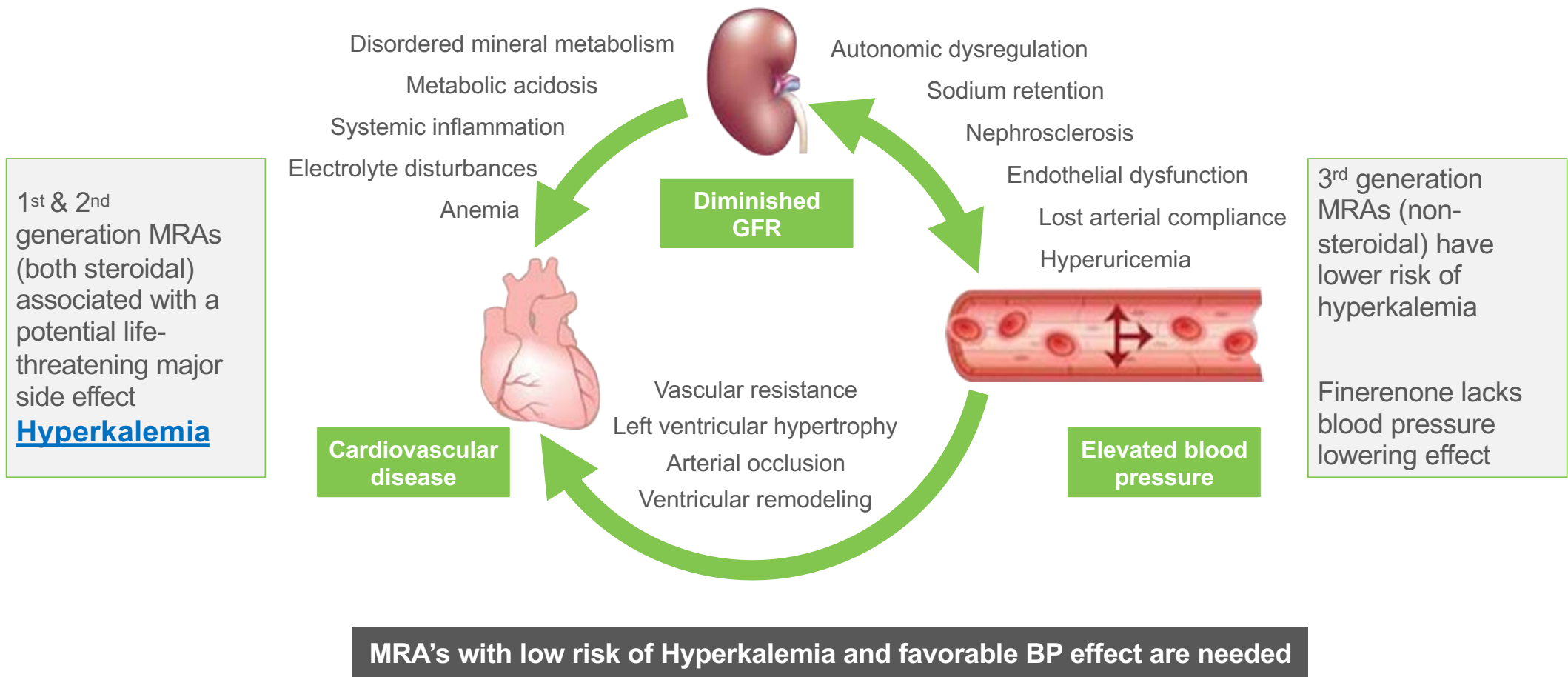
- Sodium/potassium balance
- Potassium circadian rhythm

Potential for Better efficacy and lower **Hyperkalemia**

Compound	MR IC ₅₀ (nM)	T _{1/2} (Hour)
KBP-5074	2.70	50-60
Finerenone	18	2-3
Spirolactone	14.3	1.4*
Eplerenone	268	3-6

*Note: The mean half-life of spironolactone is 1.4 hour. The mean half-life values of its metabolites including canrenone, 7- α -(thiomethyl) spiro lactone (TMS), and 6- β -hydroxy-7- α -(thiomethyl) spiro lactone (HTMS) are 16.5, 13.8, and 15 hours, respectively.

KBP-5074 is the only MRA that has favorable effects on all three organ systems in advanced CKD patients



Uncontrolled Hypertension in Stage 3b/4 CKD Patients

Limited/No treatment Options – Major Unmet Medical Need



Typical patient: High disease burden

- 65 years old
- 20-year history of HTN, 10 years of CKD
- eGFR = 28 mL/min/1.73m², proteinuria, T2DM, Hyperlipidemia, SBP = 160mmHg
- Current anti-HTN prescriptions
 - Lisinopril + hydrochlorothiazide + amlodipine – Max dose

50-80% of patients on 2+ HTN drugs

Few/no viable treatment options

- Beta blocker
 - Ineffective
 - Block hyperglycemia
- Alpha blocker
 - Ineffective
 - Minoxidil
 - Fluid retention
 - Hirsutism
- Hydralazine
 - Short-term effect
- **MRAs** (Spironolactone, Eplerenone)
 - **Contraindicated due to hyperkalemia**

Major Unmet Medical Need

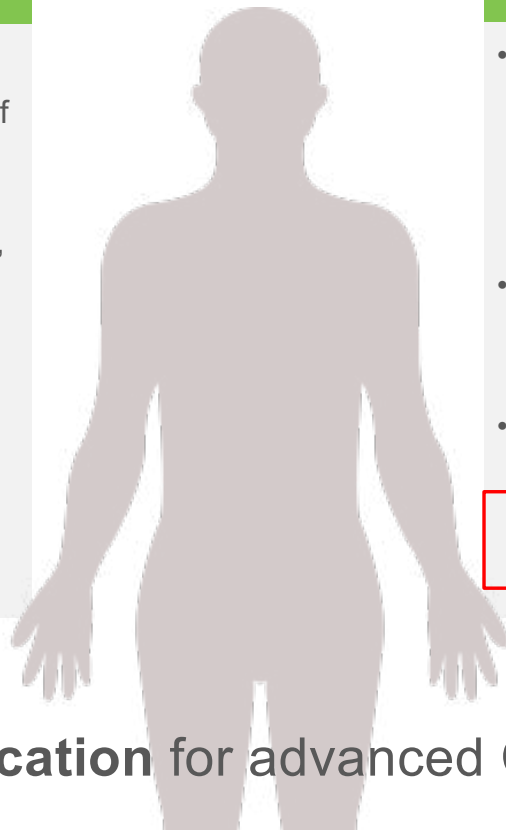
HTN

eGFR decrease

Kidney disease progression

**Dialysis
\$100k / Year**

A unique indication for advanced CKD patients



CKD with Uncontrolled Hypertension: Large Market Potential Across Major Markets – US, Europe, China

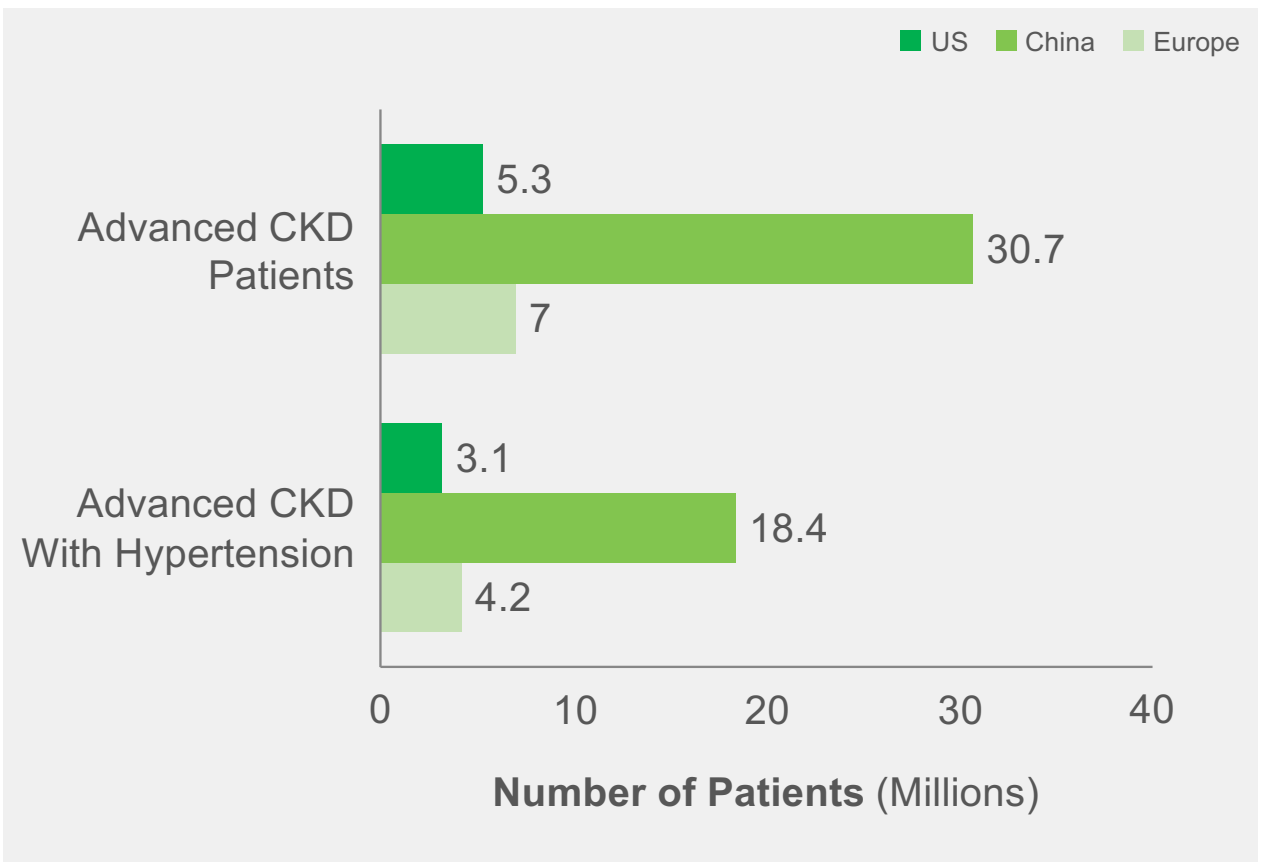


Physicians are cautious to use existing MRAs in advanced CKD patients, due to **elevated hyperkalemia risk & rapidly declining renal function**

Key Figures

- ~43 million advanced CKD patients across three markets
- ~26 million advanced CKD patients with hypertension
- Initial indication of hypertension in CKD could generate US sales in the range of \$1.8 – 2.4 billion

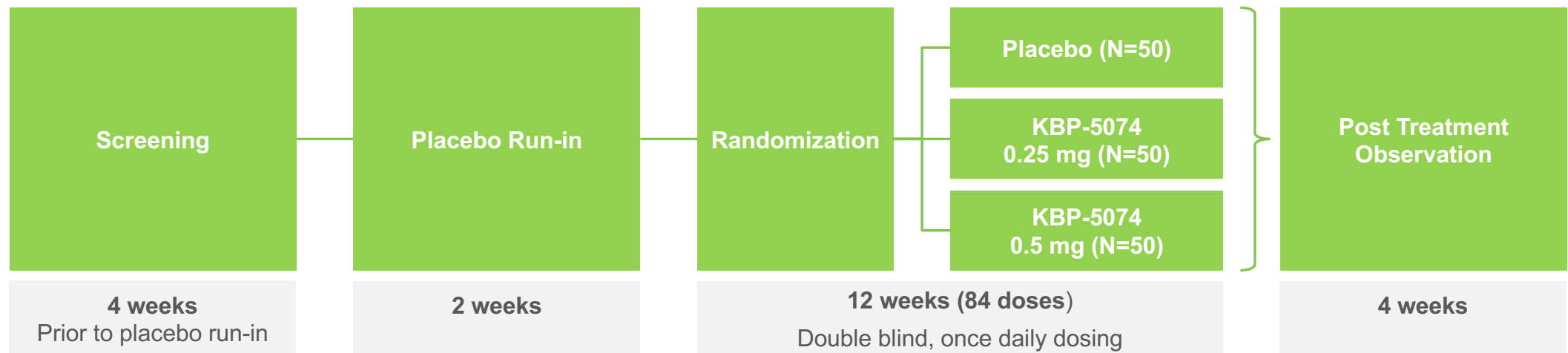
Important CKD Figures Across the US, Europe and China



Phase 2b Study (BLOCK CKD)



A Phase 2, Randomized, Double-Blind, Placebo-Controlled, Multi-Center Study to Assess the Efficacy, Safety, and Pharmacokinetics of KBP-5074 in Patients with Moderate-to-Severe Chronic Kidney Disease and Uncontrolled Hypertension



- **Inclusion Criteria:** eGFR 15-45 mL/min/1.73m² / systolic blood pressure (SBP) > 140 mmHg
- **Primary Endpoint:** Change from baseline of SBP
- **Secondary Endpoints:** DBP / ABPM / NT-proBNP
- **Safety Endpoints:** General AE & hyperkalemia

Mineralocorticoid Receptor Antagonists for Hypertension Management in Advanced Chronic Kidney Disease"
[HYPERTENSIONAHA.120.15199](#) Hypertension. 2020;76: 144 –149
Clinicaltrials.gov: NCT03574363

High probability of success with expedited development pathway

Single phase 3 similar to Phase 2b in population/endpoint



FDA Agreement On Development Pathway

- **Target indication** of uncontrolled BP in advanced CKD patients
- **Phase 2b** study design and analysis
- **Phase 3** and overall development program
 - HTN based single placebo-controlled Phase 3 program

Feedback

- “We are committed to meeting with you as needed to facilitate the development of your product for the treatment of this disease.” – *FDA Communications*

KBP-5074 Summary



A Novel,
Non-Steroidal
Mineralocorticoid
Receptor
Antagonist
(MRA) with
Best-in-Class
Potential for CKD
Patients

- Discovered by KBP with **unique structure** focused on hyper K⁺ risk
- Differentiated from other MRA with **unique MOA and PK profile**
- Initial development focus on a **unique indication** for advanced CKD patients
- **Large market potential** for initial indication, multiple additional indications
- **High probability of overall success** as the Phase 3 and Phase 2b clinicals trial are almost identical in terms of endpoint and population
- **Expedited development pathway** agreed with US FDA with single Phase 3 study

KBP-7072

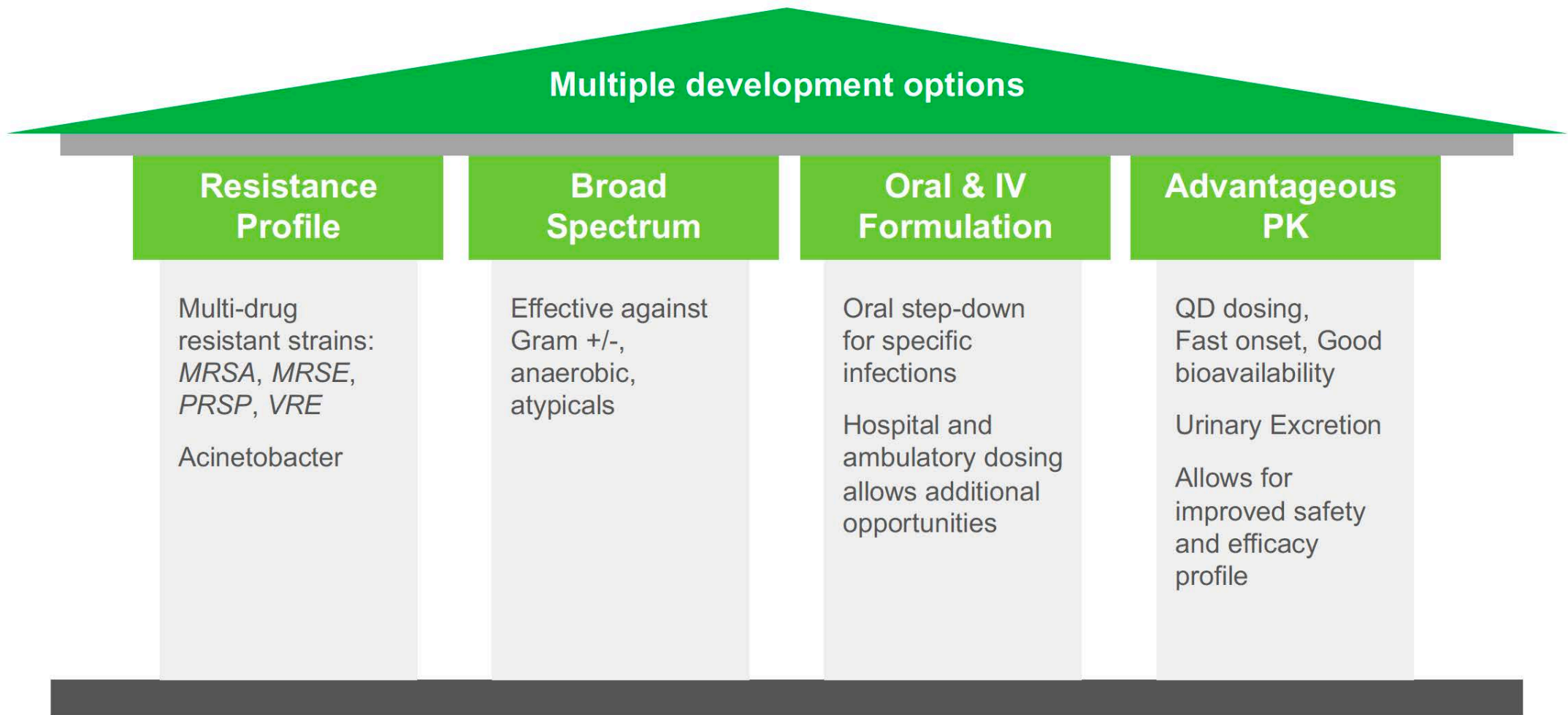
Lead Antibiotic Program for Multi-Drug Resistant Bacteria



KBP-7072 –
Phase 2-ready
Oral and IV

- A potent, third-generation tetracycline with established, broad anti-infective activity against both Gram-positive and Gram-negative bacteria, particularly on:
 - **Acinetobacter Baumannii: Priority 1 (Critical) pathogen** by the WHO – Carbapenem resistant
- QIDP status for CABP
- Three initial target indications
 - CABP (Community Acquired Bacterial Pneumonia)
 - ABSSSI (Acute Bacterial Skin and Skin Structure Infection) and wound injury
 - cIAI (Complicated Intra-Abdominal Infection)

KBP-7072: Features Address Multiple Unmet Needs



In vitro activity of KBP-7072 against 531 *A. baumannii* clinical isolates (2018)



Pathogens	Range (mg/L)	MIC ₅₀ (mg/L)	MIC ₉₀ (mg/L)
<i>A. baumannii</i> (531)	≤0.015 - 4	0.25	1
• Colistin-susceptible <i>A. baumannii</i> isolates (490)	≤0.015 - 4	0.25	1
• Colistin-resistant <i>A. baumannii</i> isolates(38*)	0.03 - 2	0.5	1
• <i>ESBL-producing and MBL-producing A. baumannii</i> isolates (10)	0.06 - 1	0.12	0.5

- KBP-7072 inhibited **97.6%** of all isolates at ≤1 mg/L
- KBP-7072 (MIC_{50/90}, 0.5/1 mg/L; 92.1% inhibited at ≤1 mg/L) was the **most active compound** tested against 38 recent geographically diverse **colistin-resistant** *A. baumannii* isolates and outperformed all tetracycline class & comparator agents
- KBP-7072 (MIC_{50/90}, 0.12/0.5 mg/L) inhibited **100.0%** of **ESBL-** and **MBL-** producing *A. baumannii* isolates at ≤1 mg/L

*Comprised of 14 isolates from the US, 18 isolates from Europe, 5 isolates from the Asia-Pacific region, and 1 isolate from Latin America.