MINERALYS

Targeting Aldosterone in the Treatment of Cardiorenal Diseases

Launch-HTN & Advance-HTN Topline Data

March 10, 2025

Forward-Looking Statements and Market Data

Mineralys Therapeutics cautions you that statements contained in this presentation regarding matters that are not historical facts are forward-looking statements. The forward-looking statements are based on our current beliefs and expectations and include, but are not limited to, statements regarding: the potential therapeutic benefits of and market opportunity for lorundrostat; the Company's expectation that Advance-HTN and Launch-HTN may serve as pivotal trials in any submission of a new drug application (NDA) to the United States Food and Drug Administration (FDA); the Company's ability to evaluate lorundrostat as a potential treatment for chronic kidney disease, uncontrolled hypertension, resistant hypertension or obstructive sleep apnea in patients with hypertension; the planned future clinical development of lorundrostat and the timing thereof; and the expected timing of commencement and enrollment of patients in clinical trials and topline results from clinical trials. Actual results may differ from those set forth in this press release due to the risks and uncertainties inherent in our business, including, without limitation: topline results that we report are based on a preliminary analysis of key efficacy and safety data, and such data may change following a more comprehensive review of the data related to the clinical trial and such topline data may not accurately reflect the complete results of a clinical trial; our future performance is dependent entirely on the success of lorundrostat; potential delays in the commencement, enrollment and completion of clinical trials and nonclinical studies; later developments with the FDA may be inconsistent with the feedback from the completed end of Phase 2 meeting, including whether the proposed pivotal program will support registration of lorundrostat which is a review issue with the FDA upon submission of an NDA; the results of our clinical trials, including the Advance-HTN and Launch-HTN trials, may not be deemed sufficient by the FDA to serve as the basis for an NDA submission or regulatory approval of lorundrostat; our dependence on third parties in connection with manufacturing, research and clinical and nonclinical testing; unexpected adverse side effects or inadequate efficacy of lorundrostat that may limit its development, regulatory approval and/or commercialization; unfavorable results from clinical trials and nonclinical studies; results of prior clinical trials and studies of lorundrostat are not necessarily predictive of future results; regulatory developments in the United States and foreign countries; our reliance on our exclusive license with Mitsubishi Tanabe Pharma to provide us with intellectual property rights to develop and commercialize lorundrostat; and other risks described in our filings with the Securities and Exchange Commission (SEC), including under the heading "Risk Factors" in our annual report on Form 10-K, and any subsequent filings with the SEC. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and we undertake no obligation to update such statements to reflect events that occur or circumstances that exist after the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions, and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

Agenda

01 Introduction **Jon Congleton**

02 Launch-HTN and Advance-HTN Data **Dr. David Rodman, M.D.**

03 Conclusion **Jon Congleton**

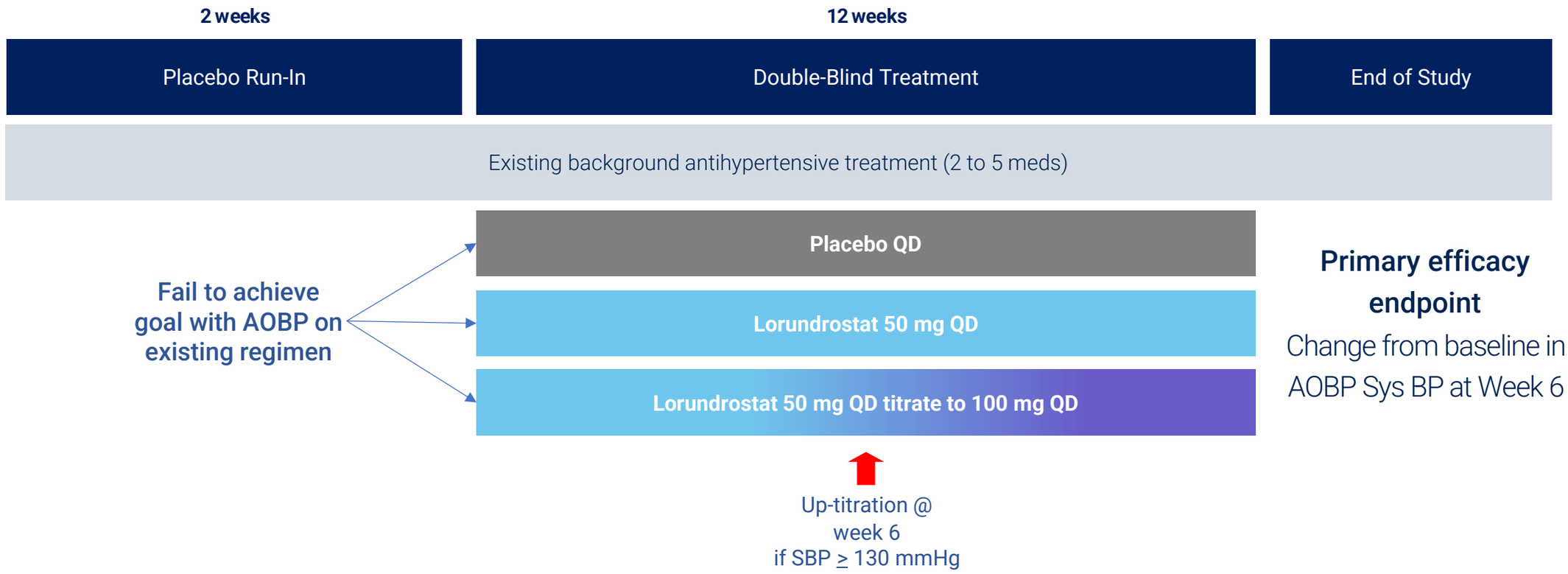
04 Q&A

Positive Topline Results from Launch-HTN and Advance-HTN

- Launch-HTN **19.0 mmHg** absolute, and **11.7 mmHg** placebo-adjusted reduction (p-value < 0.0001) assessed by automated office BP at end of treatment, week 12
- Advance-HTN **7.9 mmHg** placebo-adjusted reduction assessed by 24hr ABPM at end of treatment, week 12
- Lorundrostat demonstrated a favorable safety and tolerability profile in both pivotal trials
- Full results from Advance-HTN to be presented on March 29, 2025, at the American College of Cardiology Scientific Sessions

Launch-HTN Phase 3 Pivotal Trial Design

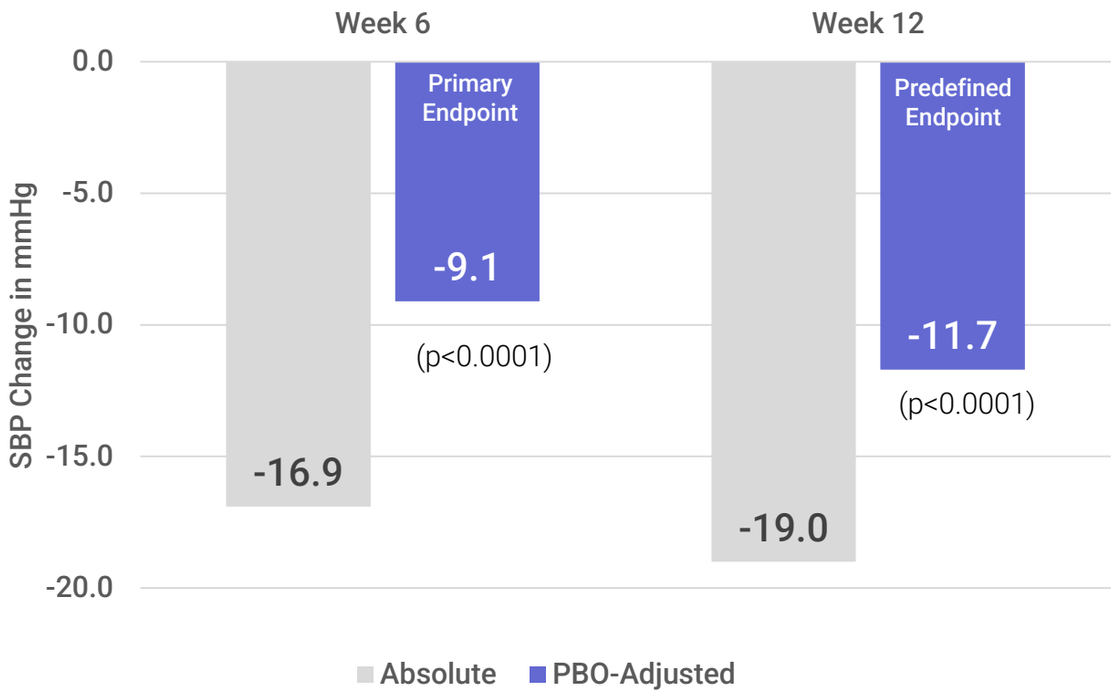
Real-World efficacy and safety trial of lorundrostat when added on top of 2-5 existing hypertension medications in uncontrolled and resistant hypertension, 1,083 subjects



Launch-HTN Robust, Statistically Significant Results

Real-World study, how practitioners would utilize lorundrostat in daily practice for uncontrolled and resistant HTN

u/r/HTN patients on existing regimen of 2-5 AHTs (n=1,083) on 50 mg lorundrostat QD



Safe and well tolerated with 1.1% and 1.5% hyperkalemia rate, in 50mg and 50mg to 100mg arms, respectively

- Baseline demographics:
  - ~63% BMI ≥ 30
  - ~29% black
  - ~47% female
- Starting dose of 50mg validated
- Worked in uncontrolled HTN & resistant HTN
- Worked in Blacks and Whites
- Worked in Men and Women
- Worked in overweight and obese patients
- Safety and tolerability favorable

Launch-HTN Topline Safety Summary

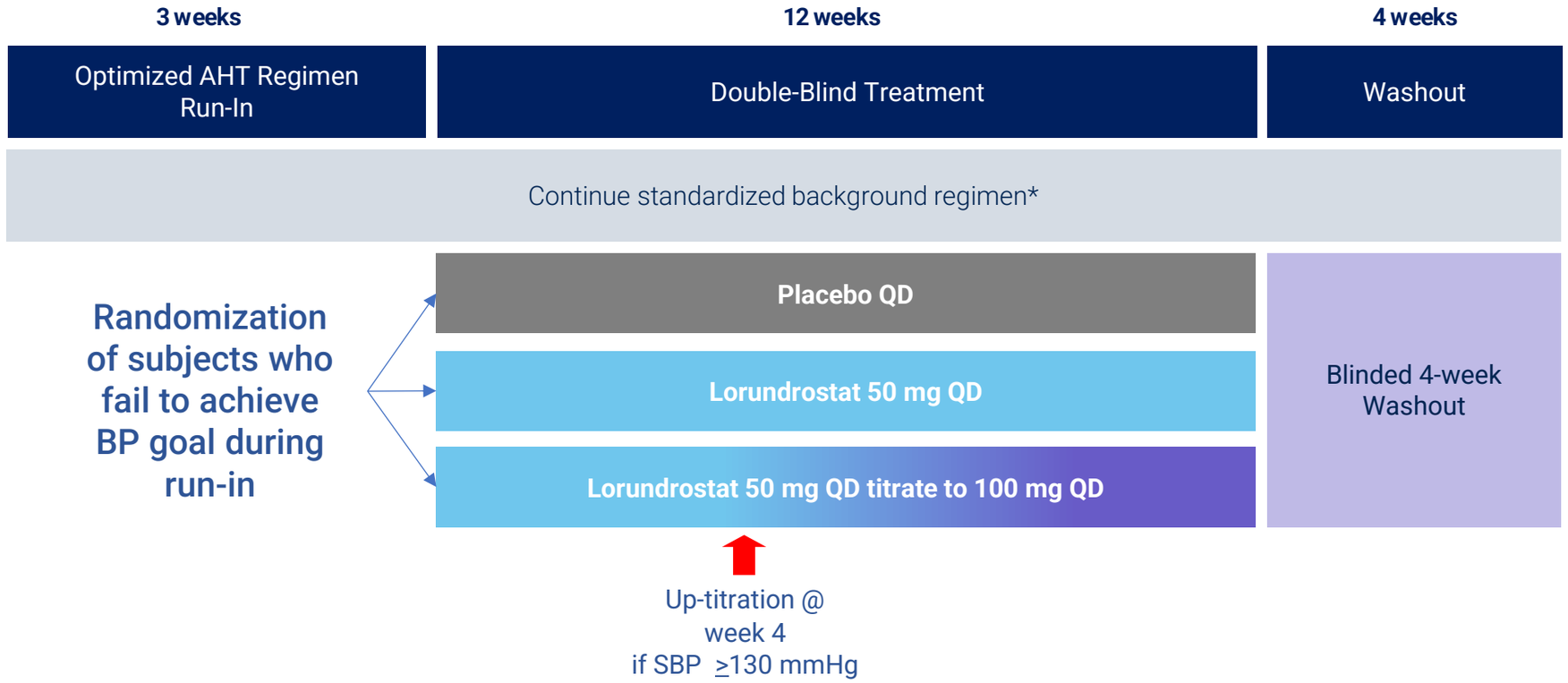
Launch-HTN trial demonstrated that lorundrostat delivered a compelling safety profile SAEs 0.7 % to 2.4%, TEAEs leading to dosing discontinuation 1.5% to 2.6%

	Placebo N=270			Lorundrostat 50 mg QD N=538			Lorundrostat 50 mg to 100 mg QD N=270			Total N=1,078		
	%	N	Events	%	N	Events	%	N	Events	%	N	Events
SAEs	3.3	9	13	2.4	13	15	0.7	2	3	2.2	24	31
TEAEs	36.3	98	202	53.7	289	636	55.9	151	313	49.9	538	1,151
Drug-Related	18.9	51	83	38.8	209	389	39.3	106	191	34.0	366	663
AESI	11.1	30	37	23.0	124	164	24.1	65	91	20.3	219	292
Leading to dosing discontinuation	1.9	5	6	2.6	14	17	1.5	4	6	2.1	23	29
Leading to death	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0

SAEs: Serious Adverse Events; TEAEs: Treatment Emergent Adverse Events; AESI: Adverse Events of Special Interest; N: Number of Subjects; Events: Number of Events

Advance-HTN Phase 2 Pivotal Trial Design

Confirmatory efficacy and safety trial of lorundrostat in uncontrolled and resistant hypertension, 285 subjects



Primary efficacy endpoint

Change in 24h ABPM Sys BP from Week 0 to Week 12

*Start optimized drug background regimen. 2 AHTs = ARB + Diuretic / 3-5 AHTs = ARB + Diuretic + CCB

Advance-HTN Robust, Statistically Significant Results

Specialist driven trial, testing lorundrostat benefit when added to optimized background with 24 hr ABPM

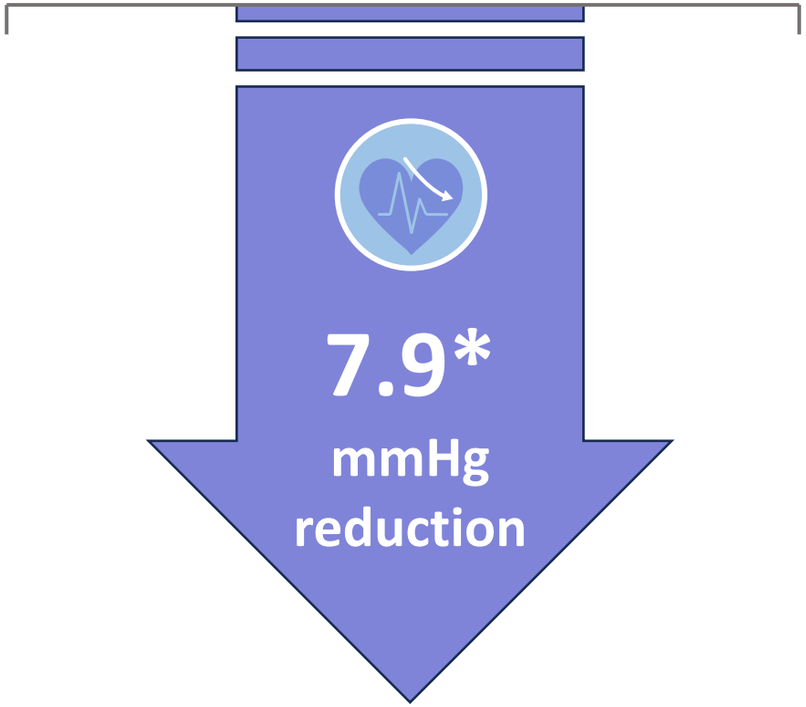
Confirms 50mg QD dose

5.3% and 7.4% hyperkalemia rate, in 50mg and 50mg to 100mg arms, respectively

Full topline data at ACC.25

Previously noted demographics:

- >66% BMI ≥ 30
- >50% black or African American
- >40% female



* Placebo adjusted.

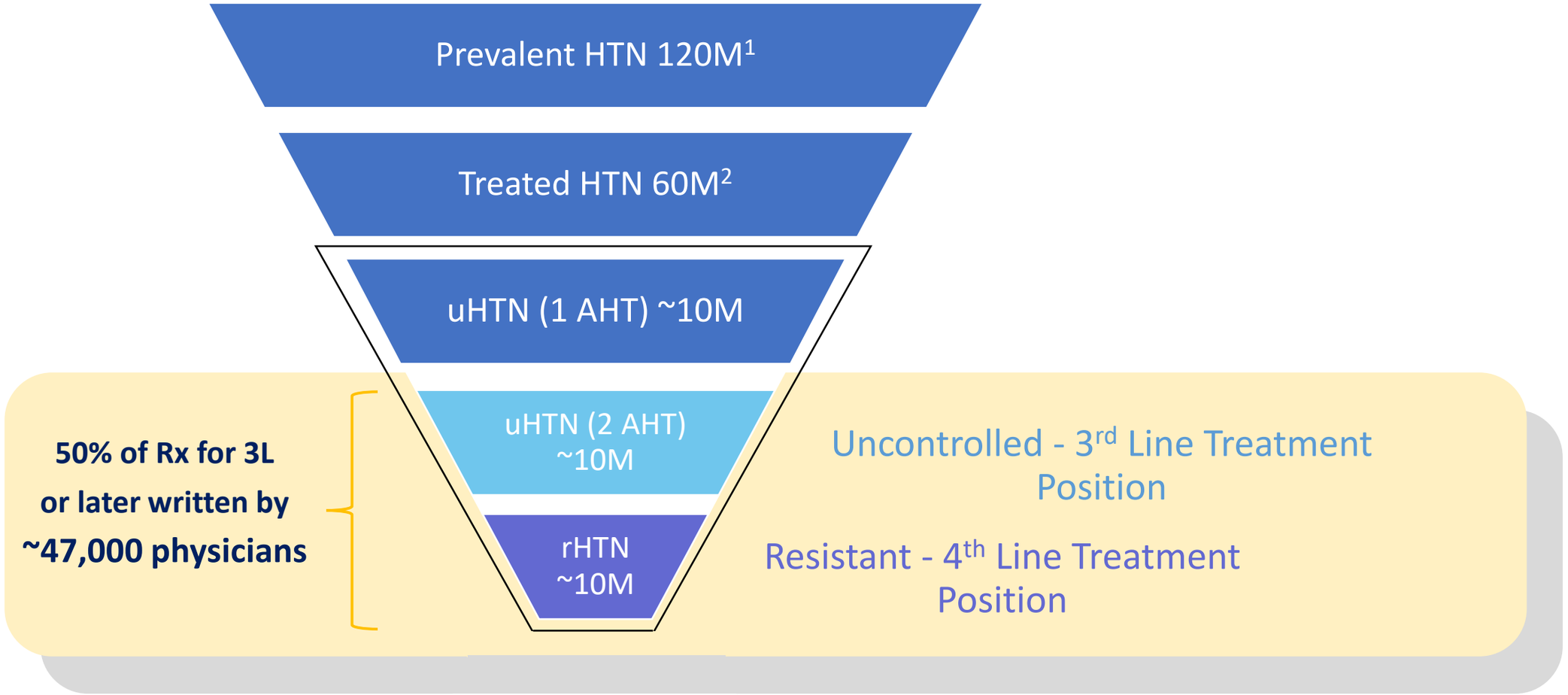
Lorundrostat Development Program with Positive Pivotal Data and Market Expansion Proof-of-Concept Trials

Lorundrostat

Trial	Safety	Proof of Concept	Pivotal	Key Milestones
Hypertension	uHTN & rHTN Standardized background AHT **COMPLETED**			-7.9mmHg PBO adjusted at week 12
	uHTN & rHTN Existing background AHT **COMPLETED**			-11.7mmHg PBO adjusted at week 12
Hypertension & Chronic Kidney Disease (CKD)	CKD + HTN PoC & Profiling			Topline Data 2Q 2025
Obstructive Sleep Apnea (OSA) & Hypertension	OSA + HTN PoC & Profiling			Initiated 1Q 2025
Open-Label Extension	uHTN & rHTN			

Lorundrostat Positioned in 3rd and 4th Line Treatment

Advance-HTN and Launch-HTN results demonstrate opportunity of lorundrostat in 3L or later treatment



1. millionhearts.hhs.gov
2. IQVIA data project May 2024

Lorundrostat in uncontrolled and resistant hypertension

TARGET-HTN

Demonstrated safety and efficacy n=200

Full Data, September 2023

ADVANCE-HTN

Demonstrated efficacy and safety in confirmed u/rHTN n=285

Topline Data, March 2025

LAUNCH-HTN

Demonstrated efficacy and safety in largest ever ASI trial in HTN n=1,083

Topline Data, March 2025


Q&A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