MINERALYS

Targeting Aldosterone in the Treatment of Cardiorenal Diseases

August 2026

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 Mineralys' current beliefs and expectations and include, but are not limited to, statements regarding: the anticipated timing of the U.S. Food and Drug Administration's (FDA) review of Mineralys' accepted New Drug Application (NDA) and any subsequent regulatory approval of lorundrostat; the potential therapeutic benefits of lorundrostat; Mineralys' expectations regarding activities to prepare for the commercial launch of lorundrostat; the planned future clinical development of lorundrostat and the timing thereof; the capital available under Mineralys' secured debt facility, including the potential to draw down additional tranches thereunder; Mineralys' expectations with respect to finalizing an agreement with Tanabe to terminate the license agreement and to have Tanabe's rights in the licensed intellectual property transferred to Mineralys; and the sufficiency of Mineralys' cash, cash equivalents and investments to fund its operations. Actual results may differ from those set forth in this presentation due to the risks and uncertainties inherent in Mineralys' business, including, without limitation: any delays in the FDA's review of Mineralys' accepted NDA, including as a result of a government shutdown or reductions in agency funding or personnel; the results of Mineralys' clinical trials, including the Launch-HTN and Advance-HTN trials, may not be deemed sufficient by the FDA to serve as the basis for regulatory approval of lorundrostat; later developments with the FDA may be inconsistent with the feedback from prior meetings, including whether the proposed pivotal program will support registration of lorundrostat following the FDA's review of Mineralys' NDA submission; the risk that future funding under the secured debt facility may not be available on the timeframe Mineralys expects, or at all, including as a result of its failure to meet the conditions required for such funding or failure to comply with the affirmative and negative covenants under the debt facility; Mineralys may not be able to reach agreement on the proposed termination of its license agreement with Tanabe on its expected timeframe, or at all; Mineralys' future performance is dependent entirely on the success of lorundrostat; potential delays in the commencement, enrollment and completion of clinical trials and nonclinical studies; Mineralys' 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; macroeconomic trends and uncertainty with regard to high interest rates, elevated inflation, tariffs and other trade policies, and the potential for a local and/or global economic recession; Mineralys' ability to maintain undisrupted business operations due to any pandemic or future public health concerns; regulatory developments in the United States and foreign countries; Mineralys' reliance on its exclusive license with Tanabe to provide Mineralys with intellectual property rights to develop and commercialize lorundrostat; and other risks described in Mineralys' filings with the Securities and Exchange Commission (SEC), including under the heading "Risk Factors" in its 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 of this presentation, and Mineralys undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date of this presentation. 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 Mineralys relating to market size and growth and other data about Mineralys' 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 Mineralys' future performance and the future performance of the markets in which Mineralys operates 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 Mineralys.

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Targeting Aldosterone in the Treatment of Hypertension and Cardiorenal Diseases

Lorundrostat is a selective aldosterone synthase inhibitor (ASI) targeting aldosterone

- Dysregulated aldosterone is the driver in 30% of uncontrolled and resistant hypertension (u/rHTN)
- Lorundrostat potential best-in-class ASI
  - Meaningful 24-hour BP reduction and safety of once-daily dosing of lorundrostat in u/rHTN
  - Demonstrated benefit in HTN participants with CKD
  - Demonstrated benefit in HTN participants with moderate to severe OSA
- 20M u/rHTN patients in the United States
  - Increased market opportunity in comorbid CKD or OSA
- NDA accepted; PDUFA target date Dec. 22, 2026

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Dysregulated Aldosterone In Hypertension and Related Comorbidities

Abnormally Elevated Aldosterone Impacts Multiple Biological Pathways and is a Key Driver in Cardiorenal Diseases

Genomic Effects
(MINERALOCORTICOID RECEPTOR)

Na+ and water retention drives blood volume and blood pressure

Aldosterone

Non-Genomic Effects
(GPR30 RECEPTOR)

Drives endothelial and renal tubular oxidative stress, microvascular fibrosis, inflammation and HF

Aldosterone-driven Cardiorenal Disorders

UNCONTROLLED AND RESISTANT HYPERTENSION (uHTN; rHTN)[1]

CHRONIC KIDNEY DISEASE[2]

HEART FAILURE HFpEF & HFrEF[3]

VASCULAR AND SYSTEMIC INFLAMMATION[4]

1. Sim JJ, Bhandari SK, Shi J, et al. *Am J Hypertens*. 2012;25(3):379-388. **2.** Hundemer GL, Curhan GC, Yozamp N, Wang M, Vaidya A. *Hypertension*. 2018;72(3):658-666. **3.** Monticone S, D'Ascenzo F, Moretti C, et al. *Lancet Diabetes Endocrinol*. 2018;6(1):41-50. **4.** Ferreira N, Tostes RC, Paradis P, Shiffrin E. Am J Hypertens. 2021, 34(1):15-27.

Lorundrostat Potential Benefit Across Spectrum of CRMS[1–5]

Targeting dysregulated aldosterone in overlapping CRMS conditions with high CV risk and large unmet need

OSA in the U.S.

Nighttime BP link to CV risk

70-80% prevalence of rHTN in OSA

~22M Moderate-to-Severe OSA

HTN in the U.S.

30% prevalence of dysregulated aldo in u/rHTN

Visceral adiposity link to dysregulated aldo

~20M u/rHTN patients

CKD in the U.S.

>25% increase in CV risk vs controlled HTN

Kidney injury link to u/rHTN & hyperperfusion of kidney

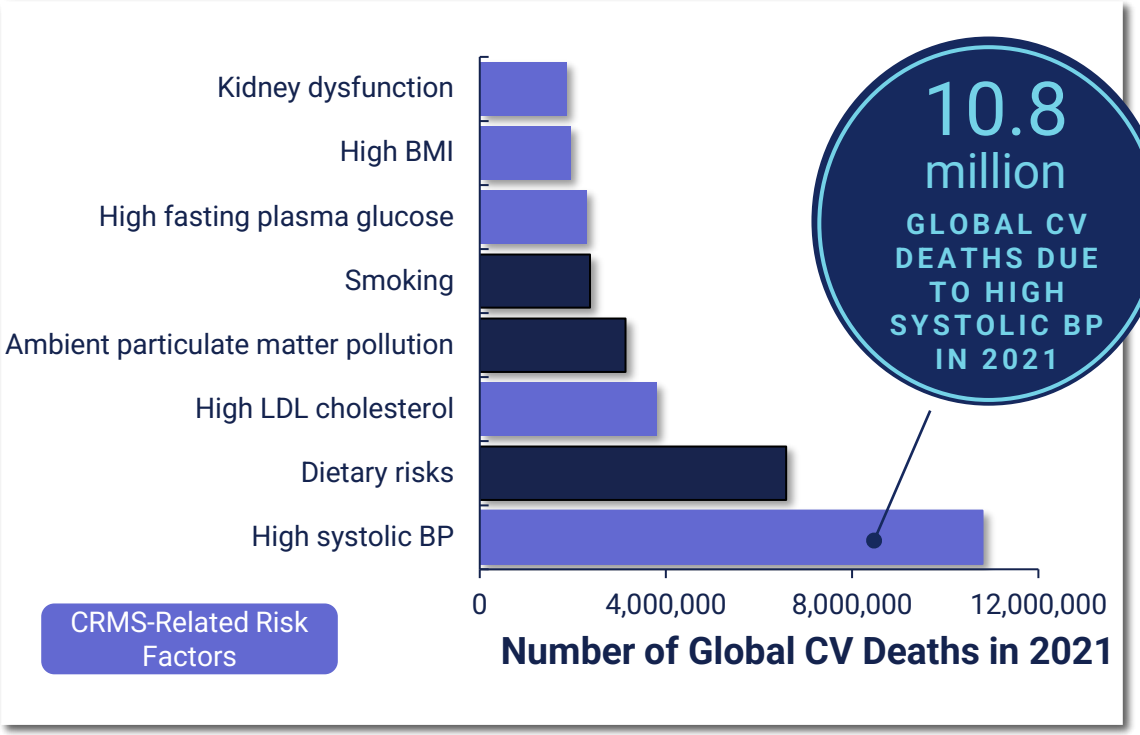
~23M HTN + CKD patients

BP, blood pressure; CRMS, cardio-renal-metabolic syndrome; CKD, chronic kidney disease; CV, cardiovascular; HFpEF, heart failure with preserved ejection fraction; HFrEF, heart failure with reduced ejection fraction; HTN, hypertension.

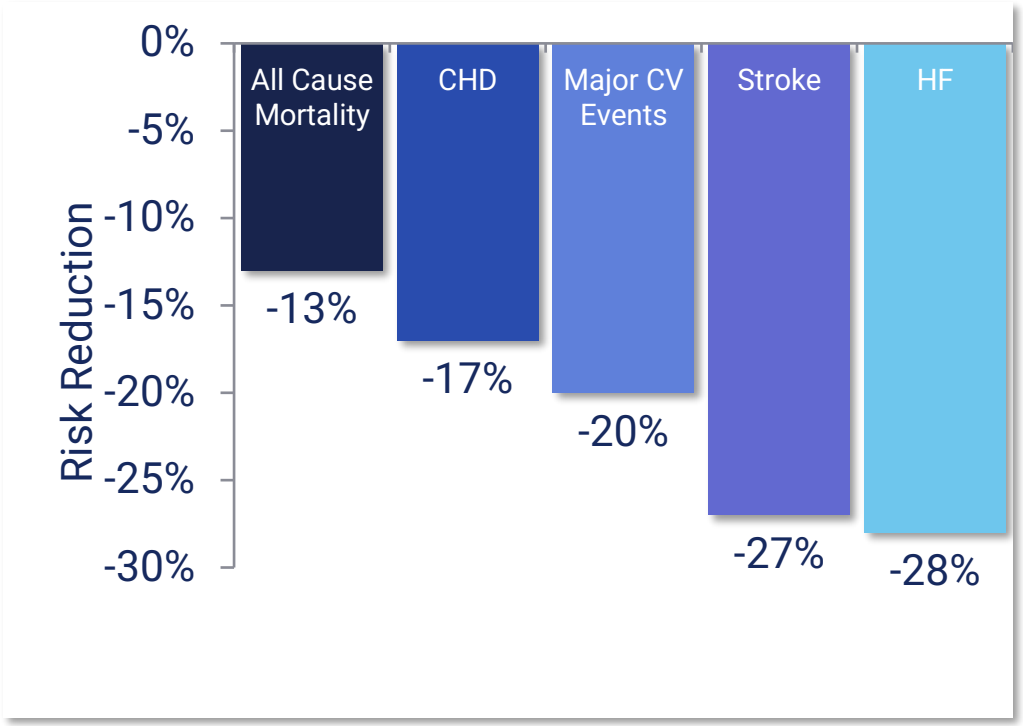
1. Ndumele CE, et al. *Circulation.* 2023;148:1606-1635. **2.** Buglioni A, et al. *J Am Heart Assoc*. 2015;4:e002505. **3**. Ebinger JE, et al. *Eur J Prev Cardiol*. 2023;30(10):960-968. **4**. Marassi M & Fadini GP. *Cardiovasc Diabetol*. 2023;22:195. **5.** Alterki A, et al. *Int J Mol Sci*. 2023;24:6807.

Uncontrolled and Resistant Hypertension Is the Leading Global Modifiable Risk Factor for Cardiovascular Death

Top 8 Global Modifiable Risk Factors for CV Deaths in 2021[1]



Risk Reduction per 10mmHg Reduction in Systolic BP[2]



BMI, body mass index; BP, blood pressure; CRMS, cardio-renal-metabolic syndrome; CV, cardiovascular; LDL, low density lipoprotein.

1. Vaduganathan M, et al. *J Am Coll Cardiol*. 2022;80(25):2361-2371. **2.** *Ettehad D, et al. Lancet. 2016;387(10022):957-967.*

The Unmet Need in u/rHTN is Largely Driven by Dysregulated Aldosterone

20-40% of hypertension patients have uncontrolled or resistant HTN

- Half of the treated HTN patients in the U.S. fail to achieve goal[1]
- Prevalence of apparent rHTN demonstrated to be ~20%[2]
- In optimized background treatment trials, 30-40% of participants fail to achieve goal[3]
- Kaiser optimized regimen trial – 20% of patients fail to achieve goal[4]

Aldosterone the primary culprit in u/rHTN

- Approximately 30% of all HTN patients have dysregulated aldosterone[5]
- Aldosterone breakthrough demonstrated in 30-40% of ACEi or ARB treated patients
- Obesity epidemic (visceral adiposity) linked to dysregulated or elevated aldosterone

1. millionhearts.hhs.gov 2, Prevalence of Apparent Treatment-Resistant Hypertension in the United States, Hypertension. 2019;73:424-431. DOI: 10.1161/ HYPERTENSIONAHA.118.12191.3. Identifying and treating resistant hypertension in PRECISION: A randomized long-term clinical trial with aprocitentan, DOI: 10.1111/jch.14517 4. Improved Blood Pressure Control Associated With a Large-Scale Hypertension Program, JAMA. 2013 August 21; 310(7): 699–705. doi:10.1001/jama.2013.108769. 5. Primary Aldosteronism and the Pathogenesis of Hypertension, Physiol Rev. 2018;98(1):103-137

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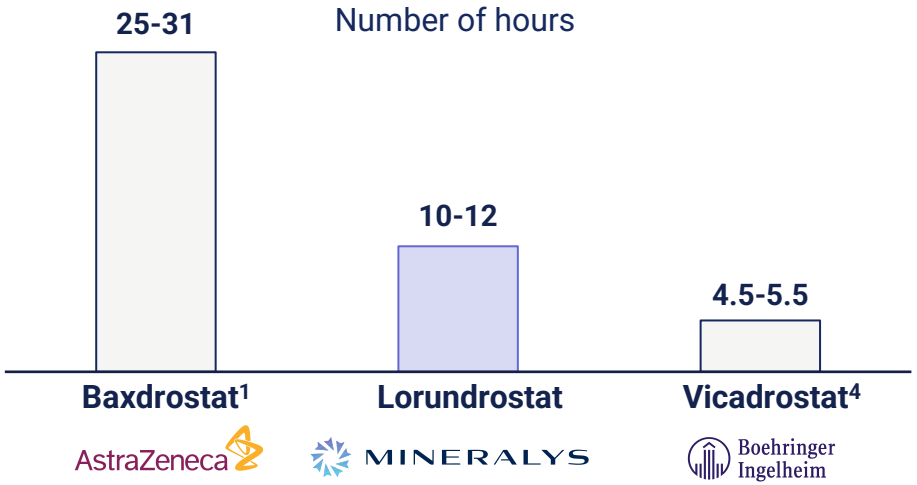
Lorundrostat Clinical Efficacy and Safety

Lorundrostat: Potential Best-in-Class Once-Daily Aldosterone Synthase Inhibitor

ASI Half-life Profiles



- **Lorundrostat 10-12 hour PK half-life profile is optimal**
  - **Long enough** to provide 1x daily dosing / 24 hour coverage
  - **Short enough** to provide sufficient "off time" for kidneys to clear potassium / sodium
  - Appropriate for **fixed dose combinations**

ASI Selectivity Profiles

	LORUNDROSTAT	BAXDROSTAT[2]	VICADROSTAT[3]	LORUNDROSTAT DIFFERENCE
SELECTIVITY	**374X**	100X	250X	Allows aldosterone inhibition, without cortisol impact
PAC REDUCTION	**40 – 70%**	60-65%	66%	~50% reduction achieves robust clinical benefit
ADRENAL INSUFFICIENCY OR CORTISOL DECREASE	**No**	No	Yes	No risk of cortisol inhibition

Information provided in the table above is for illustrative purposes only and no head-to-head clinical trials have been conducted evaluating these product candidates. Differences exist between study or trial designs and participant characteristics, and caution should be exercised when comparing data across studies.

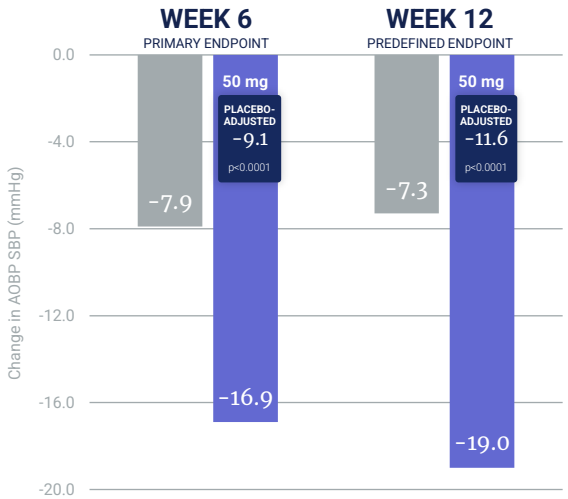
1. Bogman K, Schwab D, Delporte ML, et al. *Hypertension*. 2017;69(1):189-196.
2. AZ ESC2025 Management Presentation
3. BI presentation at ASN 2023
4. Schulze, Schaible, et al *Naunyn-Schmeideberg's Archives of Pharmacology*

Clinically Meaningful Efficacy across Participant Subgroups

Reductions in SBP of this magnitude have been linked to significant reduction in overall cardiovascular risk[1]

LAUNCH-HTN

u/r/HTN participants on prescribed regimen of 2-5 AHTs (n=1,083 randomized)

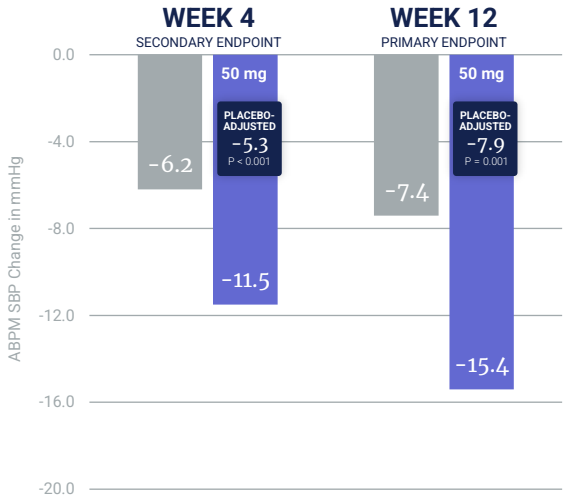


"Real World" - experience on 2 or more background medications

44% on lorundrostat and 24% on placebo achieved BP goal at week 6 (p=0.0033)

ADVANCE-HTN

Change in 24hr ABPM in mmHg (n=285 randomized)

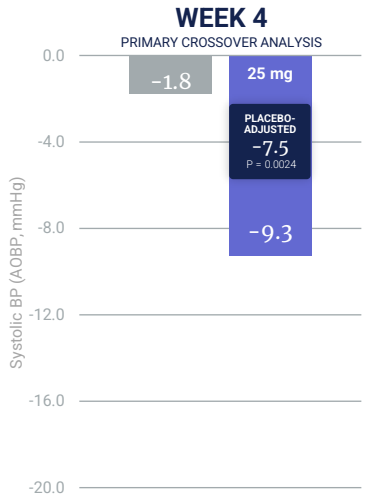


"Cardiologist" Setting for Patients with Confirmed u/rHTN

41% of lorundrostat and 18% of placebo achieved BP goal at week 4 (p<0.001)

EXPLORE-CKD

Change in AOBP in mmHg (n=59 randomized)

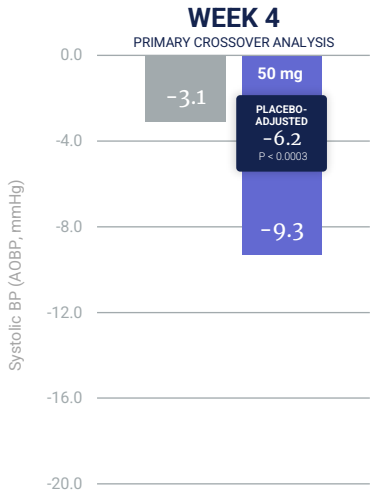


"Nephrologist" setting for u/rHTN with CKD on an SGLT2i

Lorundrostat reduced UACR by 31% at 4 weeks (p<0.0001)

EXPLORE-OSA

Change in AOBP in mmHg (n=48 randomized)



"Sleep Specialist" setting for u/rHTN with OSA

No evidence of benefit on AHI; clinically meaningful reduction in BP

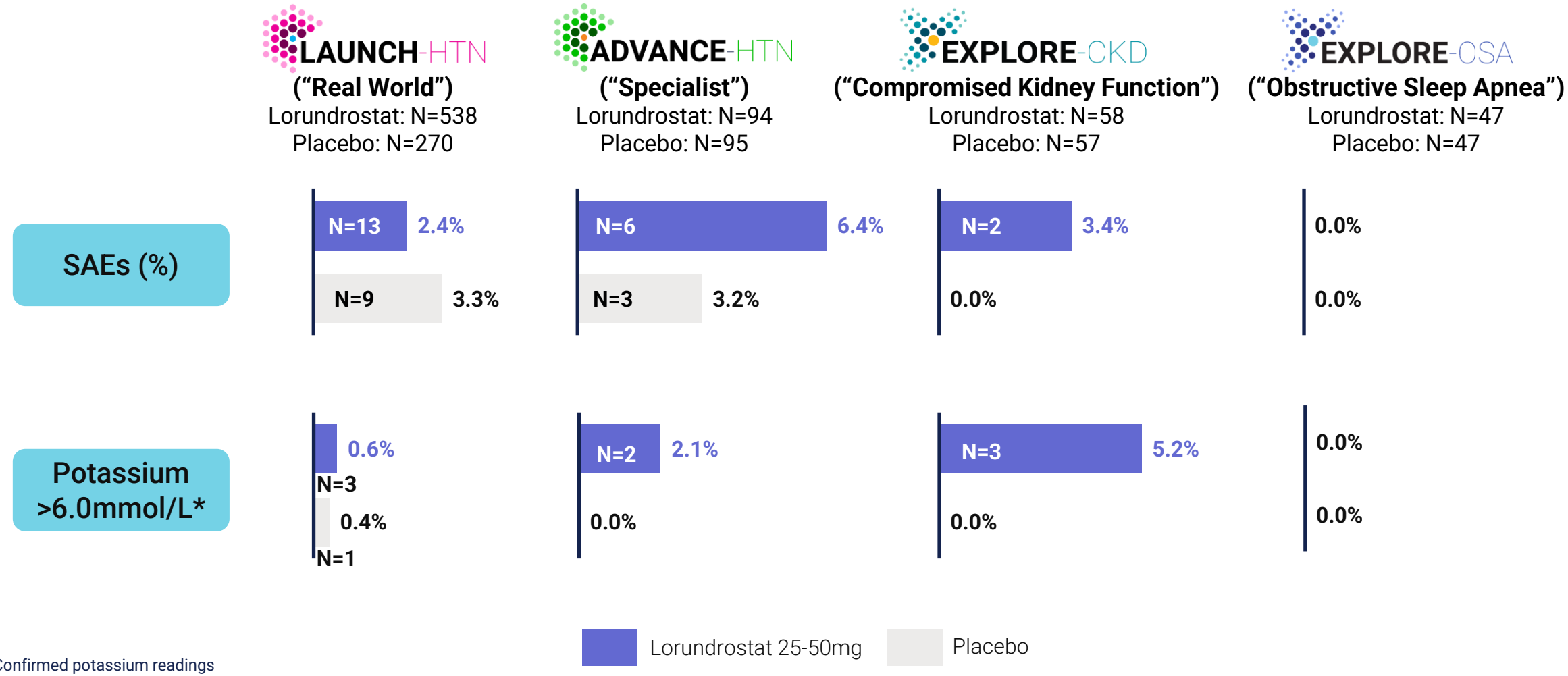
Lorundrostat 25-50mg

Placebo

1. Whelton PK, Carey RM, AronowWS, et al. 2017 *Hypertension*. 2018;71(6):1269-1324.

Favorable Safety and Tolerability Profile across Patient and Prescriber Types

Very low rates of serious adverse events and treatment discontinuations

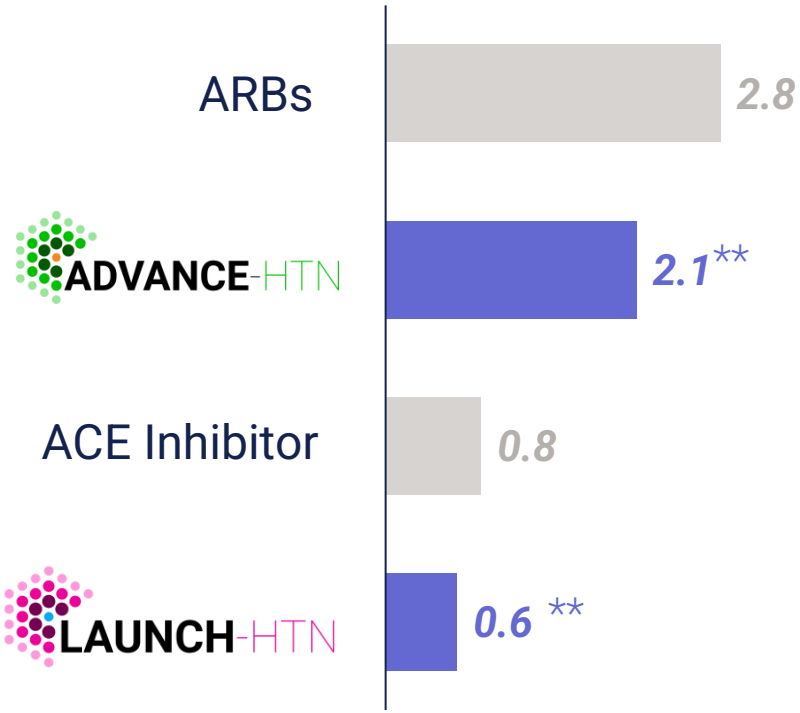


* Confirmed potassium readings

Lorundrostat Potassium Profile Similar to ACE Inhibitor and ARBs – Predictable and Modest

- Lorundrostat potassium levels are **very mild and consistent with observed levels of ACE inhibitors and ARBs today***
  - Potassium levels were mild even in Advance-HTN trial with high-dose ARB background
- Shorter lorundrostat half-life vs baxdrostat allows **kidneys to clear potassium more quickly**
- Change in potassium is an on-mechanism response **for any RAAS inhibitor**

Hyperkalemia (K^+ > 6.0) at Study Visit and Repeat Test (%)



Mild Potassium Profile, Increase Typically Resolves Within Two Weeks

* Sadjadi, et al Pathology and Laboratory Medicine International 9 July 2009
** Confirmed potassium readings

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

	Trial	Safety	Proof of Concept	Pivotal	Status
Hypertension	TARGET-HTN	u/rHTN Existing background AHT			Completed
	ADVANCE-HTN	u/rHTN Optimized background AHT			Completed
	LAUNCH-HTN	u/rHTN Existing background AHT			Completed
	TRANSFORM-HTN	Open-Label Extension*			Ongoing
Hypertension + CKD	EXPLORE-CKD	HTN + CKD			Completed
Hypertension + OSA	EXPLORE-OSA	HTN + OSA			Completed

*Randomized Treatment Withdrawal Substudy Completed

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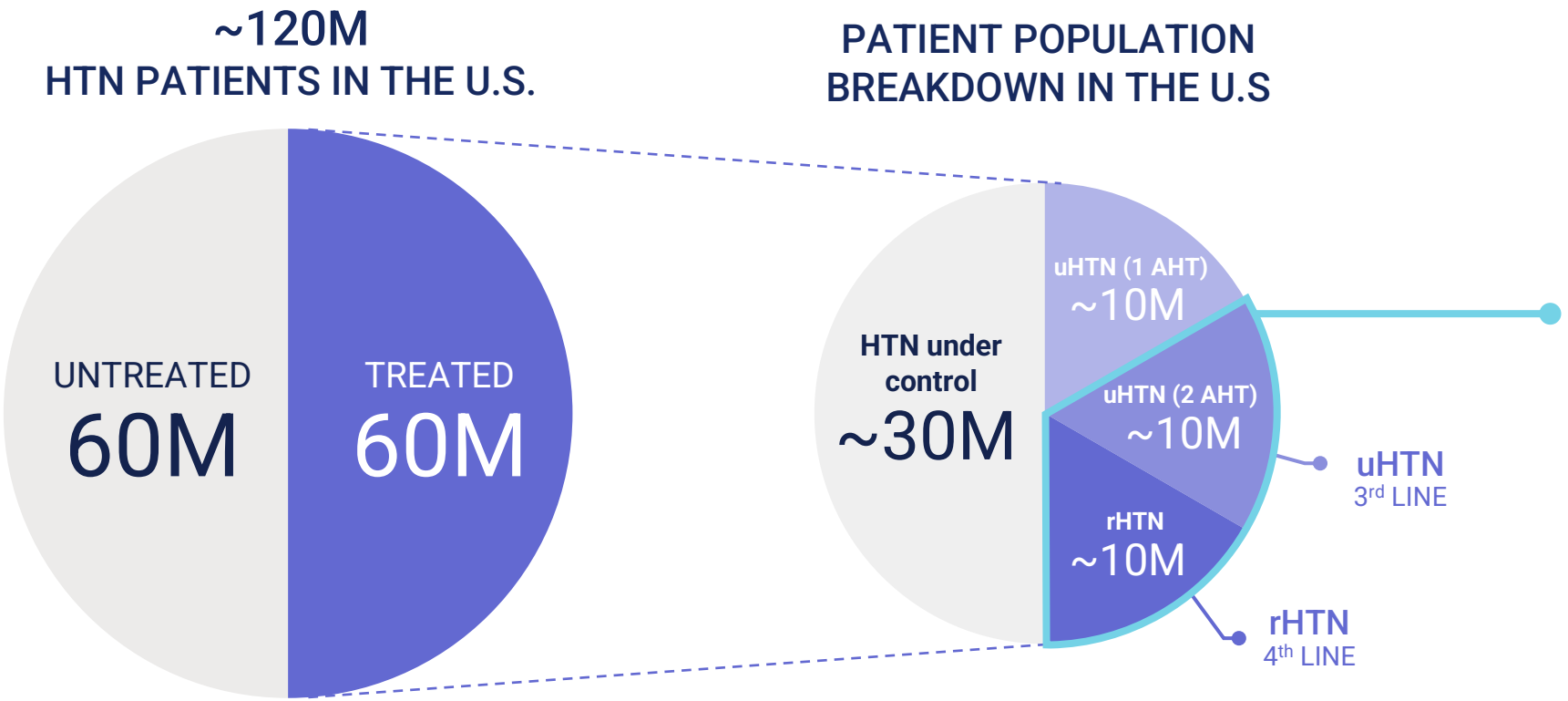
Significant Commercial Opportunity in CRMS

Large Total Addressable Market: 20M People in U.S. with Uncontrolled or Resistant Hypertension and Related Comorbidities



Addressable Market 20M u/rHTN

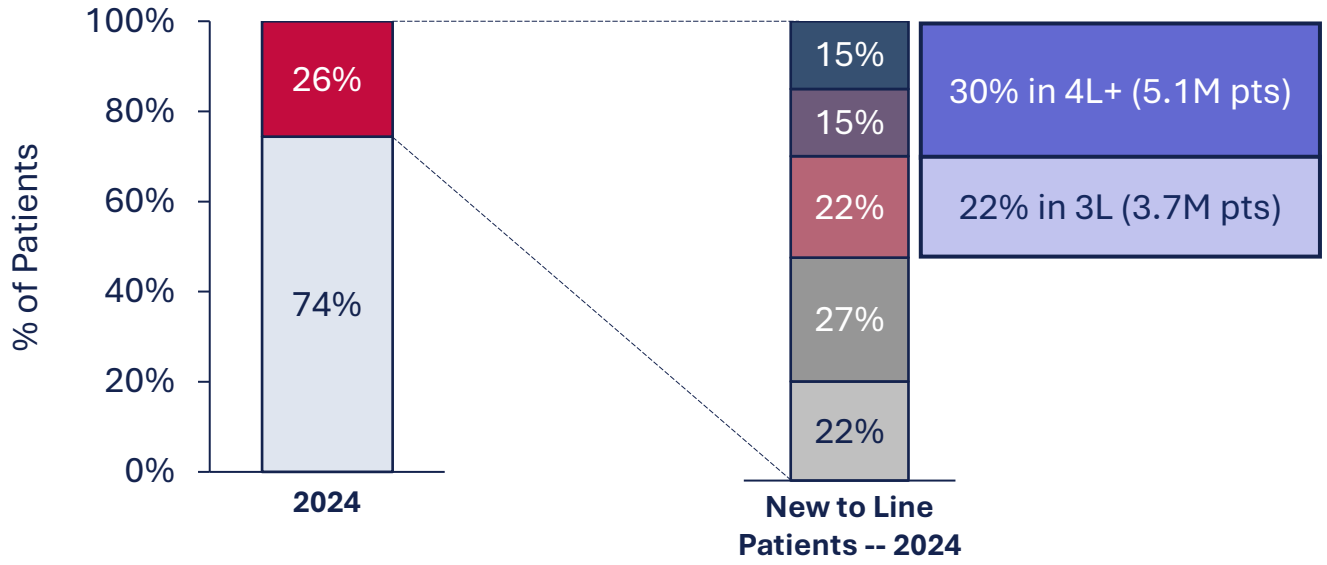
- ~3M have HTN + CKD
- ~6M have HTN + OSA

Millionhearts.hhs.gov
IQVIA data project May 2024

8.8 Million u/rHTN Patients per Year Try New Treatments – an Opportunity for Lorundrostat

More than half of new-to-line patients each year would be eligible for lorundrostat 3L+ treatment

New-to-Line vs Existing Patient Distribution



New-to-Line Patient Line of Therapy Distribution

Eligible New Patient Pool per year

65M
Treated HTN patients

✖

26%
New-to-Line patients

✖

52%
3rd Line+

=

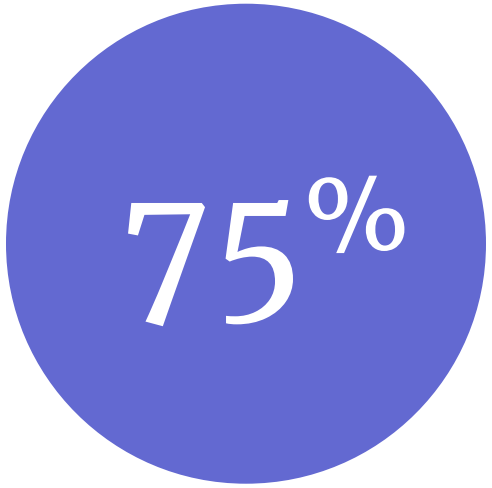
8.8M
3L & 4L+ New-to-Line patients with HTN

Majority of PCPs, Cardiologists and Nephrologists Are Likely to Prescribe Lorundrostat Based on Efficacy and Safety Profile

Likelihood to prescribe lorundrostat for u/rHTN

Based on Launch-HTN & Advance-HTN efficacy & safety data[1]

Likelihood to prescribe lorundrostat for u/rHTN with CKD



Based on Explore-CKD efficacy & safety data in u/rHTN with CKD[2]

Prefer lorundrostat vs baxdrostat, based on Launch-HTN and BaxHTN efficacy & safety profiles[3]

67%

PCPs

66%

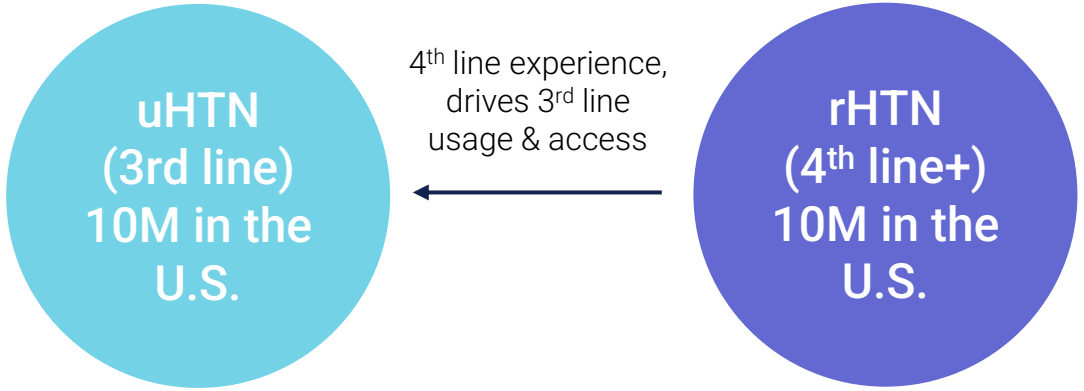
Cardiologists

1. SERMO survey, March 2025, 212 PCPs and 101 cardiologists. 2. First Word Pharma survey, June 2025, 133 HCPs 3. SERMO survey, September 2025, 52 PCPs and 50 cardiologists

Launch Plan Builds Upon u/rHTN Opportunity and Addresses Additional Areas of Unmet Clinical Need

Inclusion of ASI in AHA hypertension treatment guidelines

Potential best-in-class SBP reductions & safety in u/rHTN informs general prescribing
(Launch-HTN)



4th line experience, drives 3rd line usage & access

Generalists
High-volume PCPs

Specialists
Cardiologists
Nephrologists
High-volume PCPs

Confirmed u/rHTN
Advance-HTN: Only ASI studied in confirmed hypertension

Hypertensive nephropathy (<1g protein)
Explore-CKD: BP & Proteinuria reduction on SoC SGLT2i

u/rHTN, complicated by OSA & Obesity
Explore-OSA: Reduction of BP

Financial Summary

Nasdaq	MLYS
June 30, 2026 Cash Balance*	$661M
Shares of common stock outstanding†	88,956,640

Research Analyst Coverage

BofA Securities	Jason Gerberry
Evercore ISI	Umer Raffat/Mike DiFiore
Goldman Sachs	Richard Law
Stifel	Annabel Samimy
Guggenheim Securities	Seamus Fernandez
Wells Fargo Securities	Mohit Bansal
Jefferies	Dennis Ding
LifeSci Capital	Rami Katkhuda
HC Wainwright	Matthew Caufield
TD Cowen	Tara Bancroft

*Includes cash, cash equivalents and investments.
†As of August 3, 2026, and includes 549,755 shares underlying pre-funded warrants.

Mineralys Leadership Team

Agile and experienced in developing novel, leading therapies

Jon Congleton

Chief Executive Officer

30+ years of experience: Marion, HMR, Aventis, Teva, Nivalis, Impel Pharma

Adam Levy

Chief Financial Officer

15+ years of banking experience: Merrill Lynch, Jefferies, BAML; and 10 years of industry experience: Miragen, Brickell, Sanifit

Eric Warren

Chief Commercial Officer

30+ years of experience: Merck, Genzyme, Pfizer, Sanofi, Nabriva, Esperion

Jessica Ibbitson

EVP Operations

20+ years of experience: ProQR, Vertex, TransTech, Nova Scotia Health Authority

Jeff Munsie

Chief Legal Officer

25+ years of experience: Orbital Therapeutics, Concert, Merrimack

Terry Ferguson, MD

Chief Medical Officer

20+ years of academic medicine and 15+ years industry experience: AstraZeneca, Amgen, Matinas Bio, Cadrenal Therapeutics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