UNICYCIVE
THERAPEUTICS INC.

NASDAQ: UNCY

Novel Treatments for Kidney Disease

Company Presentation

August 2025

Forward Looking Statements

This presentation contains certain “forward-looking” statements that are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical or present facts, are forward-looking statements, including statements regarding our future financial condition, future revenues, projected costs, prospects, business strategy, and plans and objectives of management for future operations, including our plans for clinical trials and plans to submit for regulatory filings. In some cases, you can identify forward-looking statements by terminology such as “believe,” “will,” “may,” “might,” “estimate,” “continue,” “anticipate,” “intend,” “target,” “project,” “model,” “should,” “would,” “plan,” “expect,” “predict,” “could,” “seek,” “goal,” “potential,” or the negative of these terms or other similar terms or expressions that concern our expectations, strategy, plans, or intentions. These statements are based on our intentions, beliefs, projections, outlook, analyses, or current expectations using currently available information, and are not guarantees of future performance, and involve certain risks and uncertainties. Although we believe that the expectations reflected in these forward-looking statements are reasonable, we cannot assure you that our expectations will prove to be correct. Therefore, actual outcomes and results could materially differ from what is expressed, implied, or forecasted in these statements. Any differences could be caused by a number of factors including but not limited to: our expectations regarding the timing, costs, conduct, and outcome of our clinical trials, including statements regarding the timing of the initiation and availability of data from such trials; the timing and likelihood of regulatory filings and approvals for our product candidates; whether regulatory authorities determine that additional trials or data are necessary in order to obtain approval; our ability to obtain funding for our operations, including funding necessary to complete further development and commercialization of our product candidates; our plans to research, develop, and commercialize our product candidates; the commercialization of our product candidates, if approved; the rate and degree of market acceptance of our product candidates; our expectations regarding the potential market size and the size of the patient populations for our product candidates, if approved for commercial use, and the potential market opportunities for commercializing our product candidates; the success of competing therapies that are or may become available; our expectations regarding our ability to obtain and maintain intellectual property protection for our product candidates; the ability to license additional intellectual property relating to our product candidates and to comply with our existing license agreements; our ability to maintain and establish relationships with third parties, such as contract research organizations, suppliers, and distributors; our ability to maintain and establish collaborators with development, regulatory, and commercialization expertise; our ability to attract and retain key scientific or management personnel; our ability to grow our organization and increase the size of our facilities to meet our anticipated growth; the accuracy of our estimates regarding expenses, future revenue, capital requirements, and needs for additional financing; our expectations related to the use of our available cash; our ability to develop, acquire, and advance product candidates into, and successfully complete, clinical trials; the initiation, timing, progress, and results of future preclinical studies and developments and projections relating to our competitors and our industry.

Additional factors that could cause actual results to differ materially from our expectations can be found in our Securities and Exchange Commission filings. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors, nor can we assess the effects of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements. All forward-looking statements included in this presentation are expressly qualified in their entirety by these cautionary statements. The forward-looking statements speak only as of the date made and, other than as required by law, we undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

The company obtained the industry, market and competitive position data used throughout this presentation from its own internal estimates and research, as well as from industry and general publications, and research, surveys and studies conducted by third parties. Internal estimates are derived from publicly available information released by industry analysts and third-party sources, the company's internal research and our industry experience, and are based on assumptions made by the company based on such data and its knowledge of the industry and market, which the company believes to be reasonable. In addition, while the company believes the industry, market and competitive position data included in this presentation is reliable and based on reasonable assumptions, the company has not independently verified any third-party information, and all such data involve risks and uncertainties and are subject to change based on various factors.

This presentation shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of these securities in any state or other jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or other jurisdiction.

Key Investment Highlights

Corporate Overview

- Diversified portfolio focused on kidney disease
  - Lead asset OLC for the treatment of hyperphosphatemia in chronic kidney disease patients on dialysis
  - UN-494 in development for the treatment of acute kidney injury
- Strong IP Protection
- Seasoned management team with track record of developing and commercializing kidney drugs
- Cash runway currently expected into 2H 2026

OLC Opportunity

- Hyperphosphatemia represents >$1 billion US market opportunity
- De-risked development via 505(b)(2) regulatory pathway
- Working towards resubmission of NDA

OLC Launch Readiness

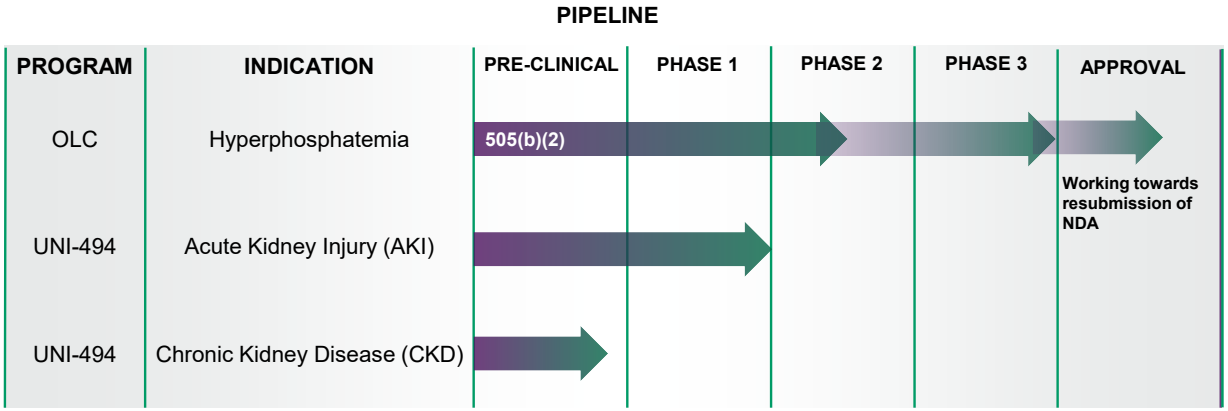
- Recent developments in reimbursement landscape expand OLC market opportunity
- Executing on OLC launch priorities
  - Awareness and market shaping
  - Facilitating reimbursement
  - Commercial operations & logistics
- Team is launch-ready pending future approval

Regulatory Update for OLC NDA

In late June, The FDA issued a Complete Response Letter (CRL)

- CRL addressed deficiencies previously identified at a third-party manufacturing vendor
- No issues identified related to preclinical, efficacy or safety of data submitted in the application
- The Company has requested a Type A meeting with the FDA to discuss resolution of the CRL
- First third-party manufacturing vendor working to regain compliance
- The Company identified a second manufacturing vendor that has already produced OLC drug product, which could also be used to support the resolution of the CMC issues identified in the CRL
- Team is launch-ready pending future approval

Unicycive is Focused on Developing New Treatment Options for Kidney Diseases



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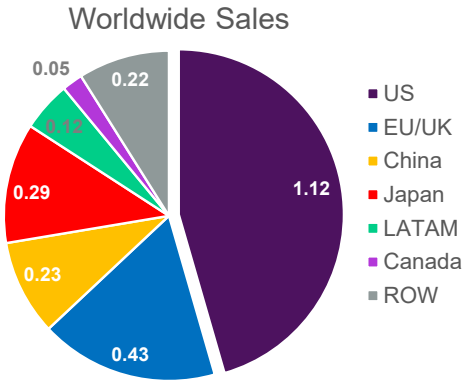
Lead Program:
Oxylanthanum Carbonate (OLC)
For the Treatment of Hyperphosphatemia in Chronic Kidney Disease (CKD) Patients on Dialysis

Oxylanthanum carbonate (OLC) is an unapproved investigational new drug being developed under FDA's 505(b)(2) regulatory pathway. If approved, OLC will share substantially the same product label and prescribing information as the reference-listed drug (RLD) Fosrenol (lanthanum carbonate) with the exception that OLC tablets are smaller in size and swallowed whole with water and not chewed.

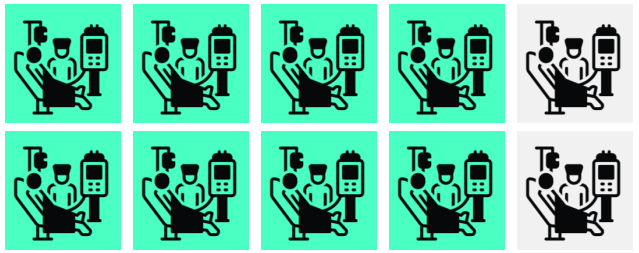
Hyperphosphatemia is a Large and Growing Market Opportunity



- $2.5 Billion in 2021 (5.3% CAGR)
- US market over $1 billion
- Unicycive owns worldwide rights

Source: Fortune Business Insights™, *Hyperphosphatemia Treatment Market, 2021-2028*

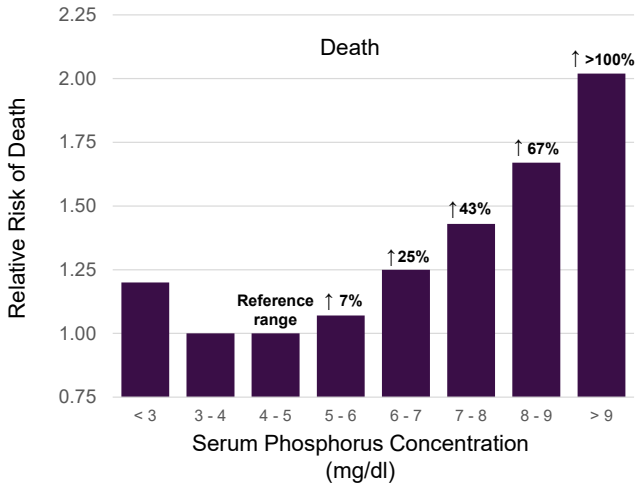
8 out of 10 US Dialysis Patients Receive Phosphate Binders for Hyperphosphatemia

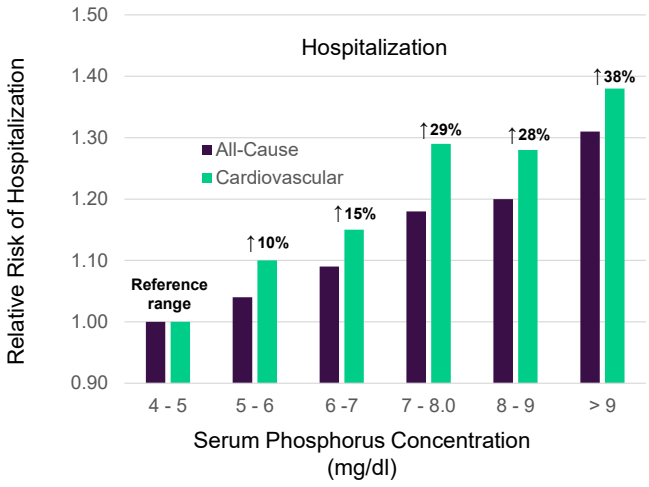


- >550,000 US dialysis patients in 2020 (3% growth rate)
- >450,000 (80%) receiving phosphate binders for hyperphosphatemia

Source: Flythe JE. Dialysis-Past, Present, and Future: A Kidney360 Perspectives Series. Kidney360. 2023 May 1;4(5):567-568. doi: 10.34067/KID.0000000000000145

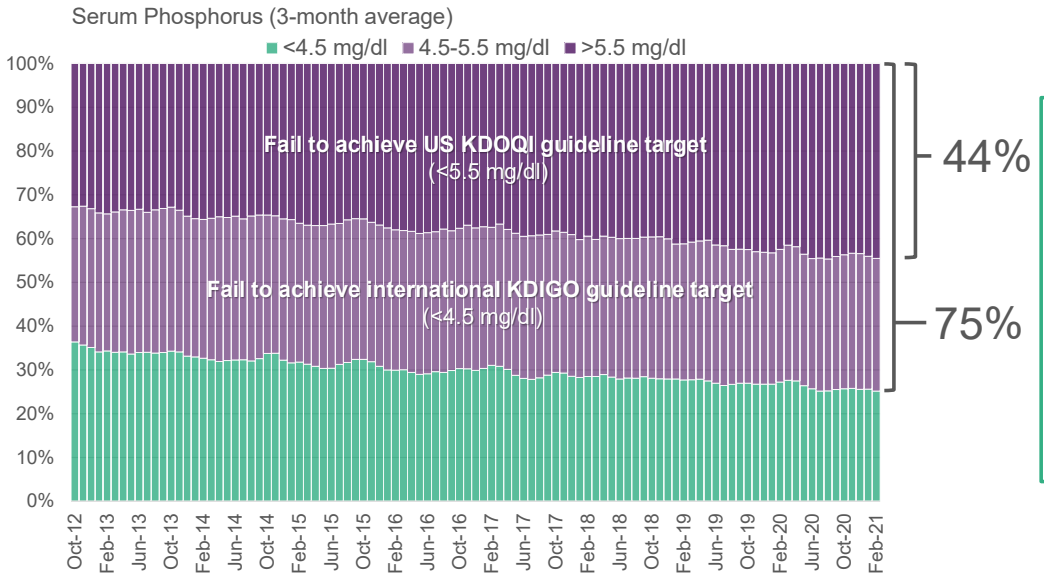
Uncontrolled Hyperphosphatemia is Strongly Associated with Increased Death and Hospitalization





Source: Mineral Metabolism, Mortality, and Morbidity in Maintenance Hemodialysis | Geoffrey A. Block, Preston S. Klassen, J. Michael Lazarus, Norma Ofsthun, Edmund G. Lowrie and Glenn M. Chertow | JASN August 2004, 15 (8) 2208-2218; DOI: https://doi.org/10.1097/01.ASN.0000133041.27682.A2

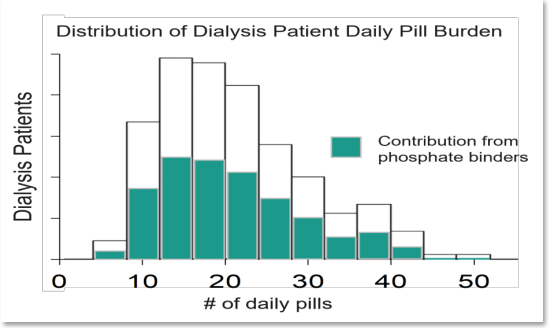
The Unmet Need in Hyperphosphatemia

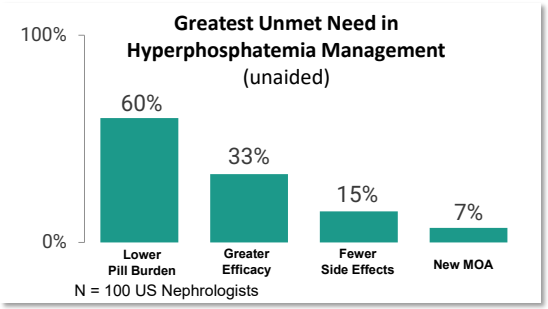


Despite the availability of 6 FDA-approved phosphate binders, a large percentage of patients fail to achieve serum phosphorus targets

Source: US-DOPPS Practice Monitor, May 2021; http://www.dopps.org/DPM

Addressing the Problem of Excessive Pill Burden





Daily pill burden for maintenance dialysis patients is among the highest across various chronic disease states including HIV/AIDS, diabetes mellitus, and congestive heart failure

- **19** pills per day (median)
- **49%** of pill burden from phosphate binders
- Higher pill burden is independently associated with lower quality of life scores (HR-QOL)
- **62%** of patients are non-adherent (self-reported)
- Nephrologists report that lower pill burden is the greatest unmet need

*"Ideally, we would have phosphate binders with high phosphate-binding capacity (translating into low pill burden and good patient adherence)…**we still do not have such a phosphate binder."***

Juergen Floege, MD, Nephrologist, Executive Committee Member, KDIGO CKD-MBD Guidelines

Sources: Chiu YW, et al. Clin J Am Soc Nephrol. 2009, Primary Market Research: OLC Conjoint Study, March 2022, Floege, J Nephrol. 2020 Jun;33(3):497-508

Oxylanthanum Carbonate (OLC) Product Profile

Overview

- Potential **best-in-class product** being developed under **FDA's 505(b)(2) regulatory pathway** for the treatment of hyperphosphatemia
- OLC advantages:
  - (1) **Potency**: shares high phosphate binding capacity of lanthanum
  - (2) **Pill Burden:** smaller and fewer pills
  - (3) **Palatability:** swallowed whole with water and not chewed

Proprietary Nanoparticle Technology

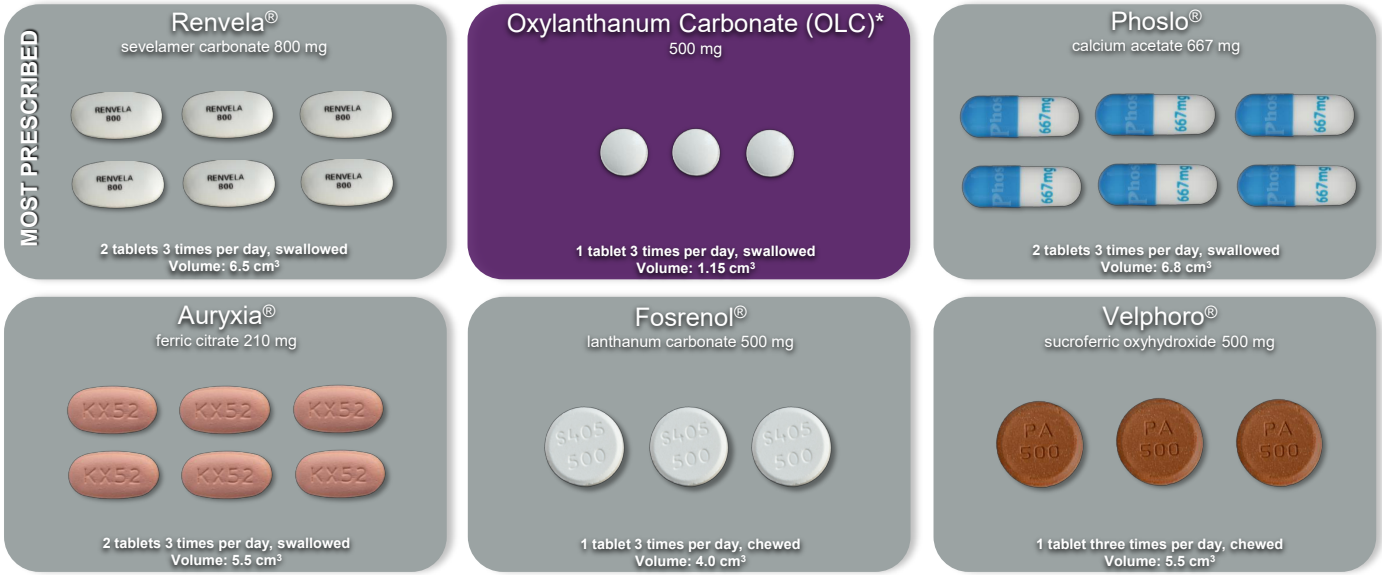
- UNICYCIVE has harnessed the phosphate binding potency of lanthanum to reduce the number and size of pills that patients must take to control hyperphosphatemia
  - Enhanced surface area
  - Lower molecular weight
  - Immediate release tablets

  ›

  - Enables smaller pills
  - Pills are swallowed (not chewed)

Strong Global Intellectual Property

Recommended Daily Starting Dose for Phosphate Binders



* Expected OLC recommended daily starting dose, if approved

Source: FDA approved package inserts, Pill volumes: Data on file, Unicycive Therapeutics, Product images are proportionally sized. Renvela® is a registered trademark of Sanofi., Auryxia® is a registered trademark of Akebia Therapeutics. Fosrenol® is a trademark of Takeda Pharmaceutical Company Limited, Phoslo® and Velphoro® are registered trademarks of Vifor Fresenius

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OLC
Clinical Data

OLC Pivotal Study

Safety & Tolerability of OLC in the Pivotal Study

Study objective to evaluate the safety & tolerability of clinically effective doses (serum phosphate ≤5.5 mg/dL) of OLC in CKD patients on dialysis

Treatment-Related Adverse Events in ≥5% Patients

Adverse Event	(N=86) n (%)
Diarrhea	8 (9%)[a]
Vomiting	5 (6%)[a]

a) Two patients experienced both diarrhea and vomiting

Safety

- No treatment-related Serious Adverse Events (SAEs)
- 6 patients had non-treatment-related SAEs
- Most AEs were mild-to-moderate; only 2 patients with severe treatment-related AEs

Tolerability

- Total discontinuation due to AEs was 6% (5/86)

We believe that these results for OLC compare favorably to historical clinical experience with other phosphate lowering therapies and will support the demonstration of similarity to Fosrenol with regard to safety and tolerability required for our 505(b)(2) NDA filing

Adverse Event (AE) Profiles of Phosphate Lowering Therapies from FDA-Approved Product Labels

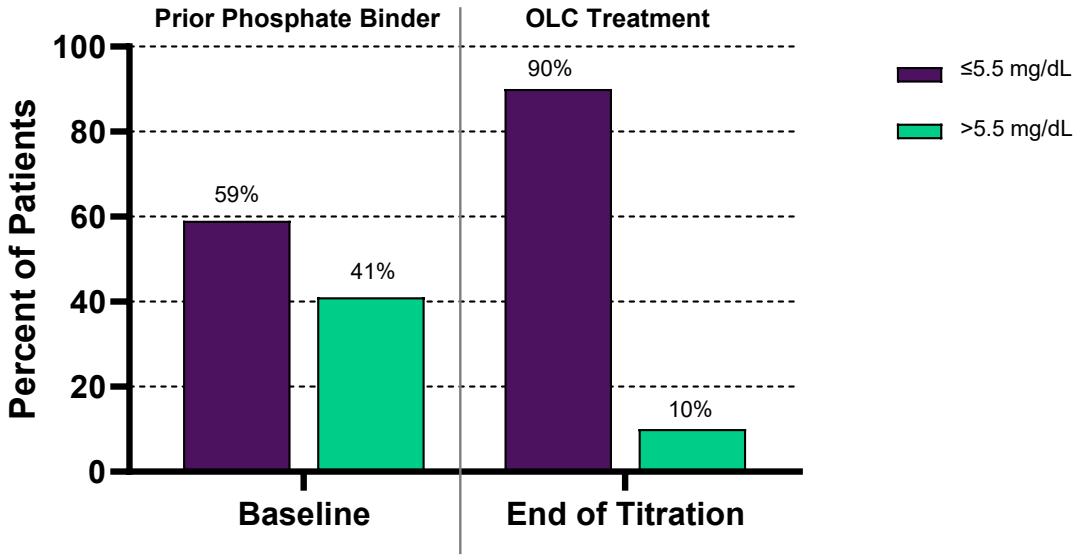
Fosrenol lanthanum carbonate		Renvela sevelamer carbonate		PhosLo calcium acetate		Velphoro sucroferric oxyhydroxide		Auryxia ferric citrate		Xphozah tenapanor	
Nausea	11%	Vomiting	22%	Hypercalcemia	13-16%	Diarrhea	24%	Diarrhea	21%	Diarrhea	43-53%
Vomiting	9%	Nausea	20%	Nausea	4-6%	Discolored feces	16%	Discolored feces	19%		
Abdominal pain	5%	Diarrhea	19%	Vomiting	2-4%	Nausea	10%	Nausea	11%		
		Dyspepsia	16%					Constipation	8%		
		Abdominal pain	9%					Vomiting	7%		
		Flatulence	8%					Cough	6%		
		Constipation	8%								

Disclaimer: FDA cautions that because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in clinical trials of a drug cannot to directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

We believe that the AE profile observed in the OLC pivotal trial compares favorably with the historical clinical experience with Fosrenol and other phosphate binders and supports a similar safety profile required for our 505(b)(2) NDA filing

OLC Pivotal Study

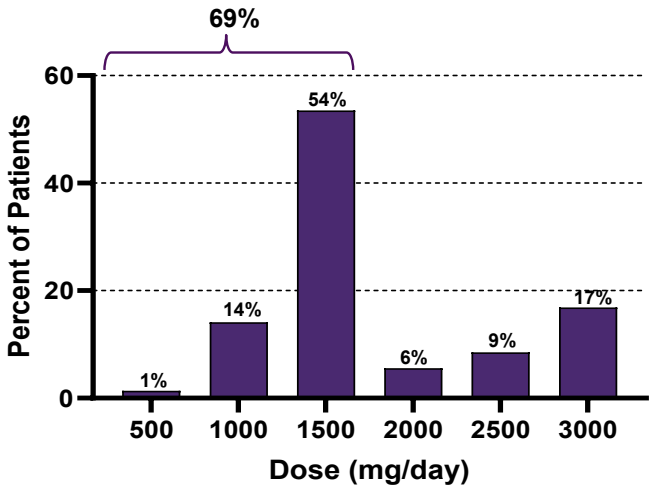
Serum Phosphate Control in Safety Population (N=86)



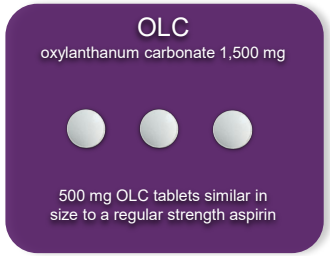
Baseline – Serum phosphate levels at screening before washout
End of Titration – includes last serum phosphate levels from all patients including those that discontinued during titration 77/86 (90%) / 9/86 (10%)

OLC Pivotal Study

Phosphate Control and Effective Dose in Evaluable Population (n=71)



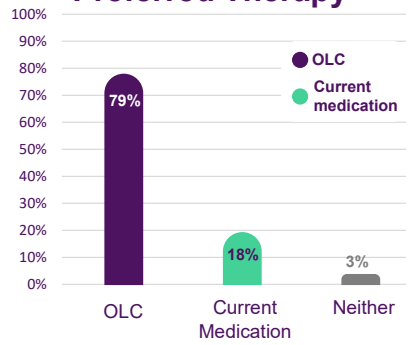
Of the 71 evaluable patients, 69% achieved a target serum phosphate level of ≤5.5 mg/dL at an OLC dose of ≤1500 mg/day or less



Patients Preferred OLC Over Their Prior Phosphate Binder Therapy in Pivotal Clinical Trial*†

79% of patients preferred OLC over their current medication

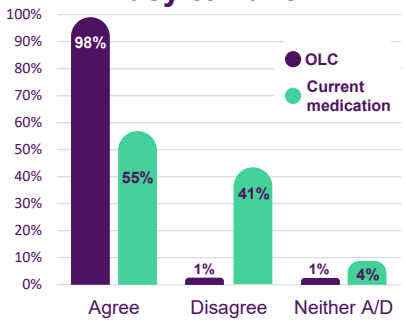
Preferred Therapy



Question: Based on your experience in this clinical trial, do you prefer your current phosphate binder or OLC?

98% of patients said **OLC** was easy to take vs **55%** with current medication

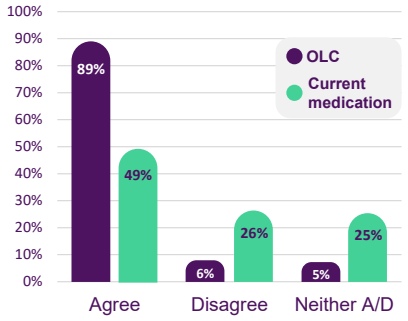
Easy to Take



Question: Oxylanthanum carbonate is easy to take?
Question: My current phosphate binder medication is easy to take?

89% of patients were satisfied with **OLC** vs **49%** with current medication

Satisfaction



Question: I am satisfied with oxylanthanum carbonate (OLC)?
Question: I am satisfied with my current medication?

*Current medication in the study population before OLC was 52% Renvela (sevelamer carbonate), 19% Phoslo (calcium acetate), 15% Auryxia (ferric citrate), 13% Velphoro (sucroferric oxyhydroxide), and 1% Xphozah (tenapanor). | †These data are from a prespecified exploratory analysis of the OLC Pivotal Study.

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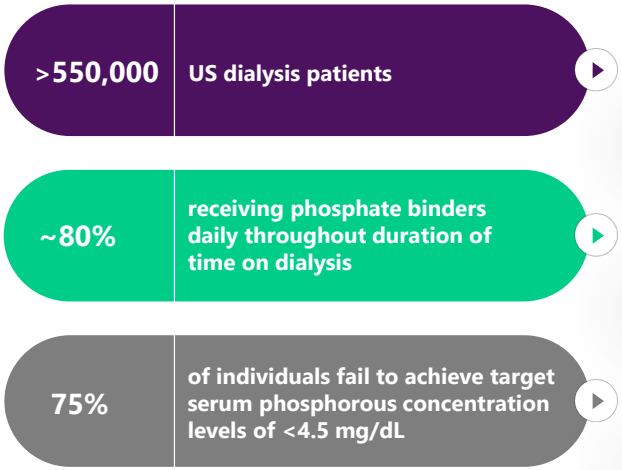
OLC
Commercial Strategy

Hyperphosphatemia is a Large and Growing Market Opportunity in the U.S.



- Nearly **450K dialysis patients in the US require phosphate management therapies**, representing a market opportunity of over $1 billion
- **75% of the patients that take these drugs do not achieve sufficient phosphate control** despite six approved therapies on the market
  - This is largely the result of low medication adherence due to excessive **pill burden** and **poor palatability**
  - **GI side effects** also contribute to lower compliance by dialysis patients
  - Nearly **2/3 of patients have trouble adhering to treatment**

Current medications are failing patients and a new solution to manage hyperphosphatemia is needed

Source: statistics from Flythe JE. Dialysis-Past, Present, and Future: A Kidney360 Perspectives Series. Kidney360. 2023 May 1;4(5):567-568. doi:10.34067/KID.0000000000000145

OLC: Innovative Dose Formulation May Help More Patients Achieve Serum Phosphorous Goals

Nanoparticle technology harnesses **high phosphate binding capacity** of lanthanum, **favorable safety and tolerability profile**

One swallowed pill taken at each meal may offer patients a **substantial reduction in daily pill burden** compared to other phosphate binder therapies[1]

Lower pill burden could promote better treatment adherence, improving hyperphosphatemia management and patient outcomes

[1]Sprague et al., Am J Nephrol, 2023.

Providing OLC Access to All Patients

Unicycive's goal is to optimize patient access across reimbursement settings

Medicare Reimbursement

64% of patients

Contract with dialysis organizations to gain access to treatment protocols for Medicare patients upon receipt of Transitional Drug Add-on Payment Adjustment (TDAPA) designation

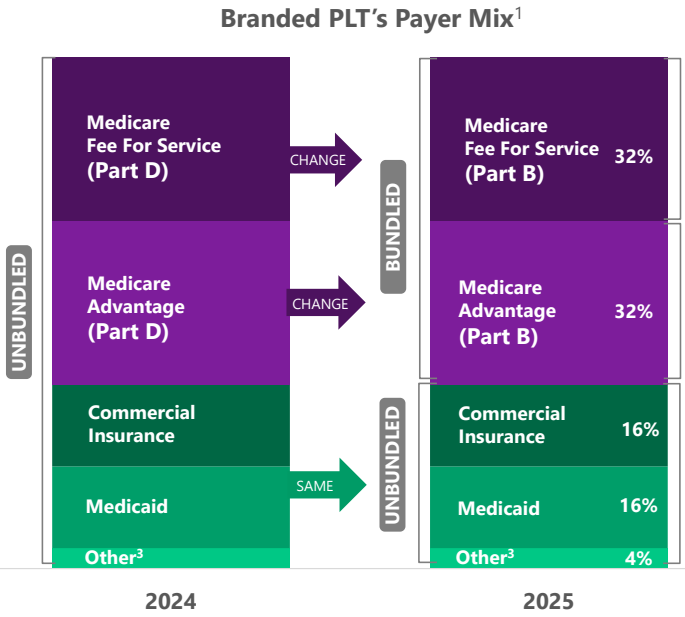
Non-Medicare Reimbursement

36% of patients

Provide dedicated access and reimbursement support services and specialty pharmacy distribution network through UniSource™ reimbursement hub (prior auth support, co-pay assistance, PAP)

Source: Custom audit of branded phosphate binder 100% Medicare FFS claims and MORE (Medical Outcomes Research for Effectiveness and Economics) Registry, 2020/21

Recent Changes to Reimbursement Environment Benefit OLC Commercial Launch



Separate TDAPA payment to DOs @ 100% of ASP

PLT access negotiated between DOs and MA plans

Status quo reimbursement dynamics

Plan to apply for separate reimbursement through CMS TDAPA program

TDAPA was established to ensure access to innovative new dialysis drugs, such as OLC, for Medicare patients within the ESRD PPS bundled payment system

TDAPA allows for separate add-on payment at 100% of ASP for eligible new drugs for two years, followed by payment at 65% of ASP for three additional years based on the drug's utilization

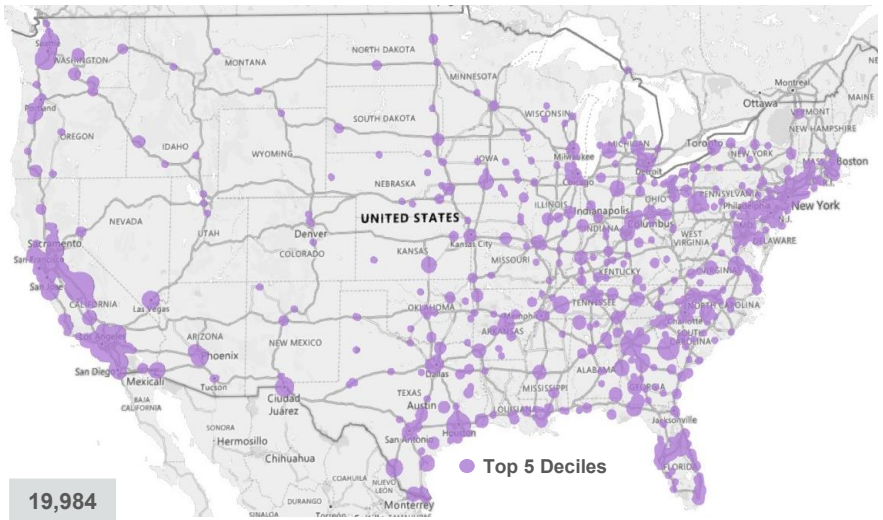
Source: [1]Custom audit of branded phosphate binder 100% Medicare FFS claims and MORE (Medical Outcomes Research for Effectiveness and Economics) Registry, 2020/21

Concentrated Prescriber Universe Can Be Addressed with Small, Targeted Salesforce

2023 Phosphate Lowering Therapies TRx's
~2.2 M
(220K/Decile)

Deciles	Prescribers
10	159
9	304
8	425
7	543
6	684
5	882
4	1,187
3	1,919
2	4,898
1	19,984

Half of all Rx's (deciles 6-10) written by only 2,100 readily-targeted prescribers



Source: IQVIA NPA and Xponent Data (captures retail and mail order Rxs but does not include Rxs from certain specialty pharmacies)

Sustained Value Creation Across the OLC Lifecycle

Pre-TDAPA

- Drive broad awareness, trial, and patient experience for OLC across entire market opportunity
- Facilitate market access and reimbursement in unbundled setting through comprehensive hub services programs

During TDAPA Period

- Rapid adoption of OLC driven by contracts with dialysis organizations for access to bundled Medicare patients
- Continued growth in unbundled payer segments

Post-TDAPA

- Best-in-class competitive profile drives high volume OLC utilization in the face of downward price pressure

Oxylanthanum Carbonate (OLC) IP Status

Strong Global Intellectual Property		
A family of patents (incl. composition of matter) were filed in 2011 for the U.S with exclusivity until 2031	Corresponding patents granted in Canada, Europe, Japan, China, Australia, and other countries with expiry in 2031	Potential patent term extension through 2035

Catalysts in 2025 and Beyond

OLC for Hyperphosphatemia

- ✓ NDA Submission (August ‘24)
- ✓ NDA Acceptance
- ✓ Buildout of commercial infrastructure
- ❑ Hold FDA Type A meeting and receive Agency’s feedback
- ❑ Resubmit NDA
- ❑ Approval
- ❑ Commercial launch
- ❑ TDAPA designation

UNI-494 for Acute Kidney Injury

- ✓ Orphan Drug Designation granted for the prevention of Delayed Graft Function in kidney transplant patients
- ✓ Method of Use patent granted by USPTO

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Corporate Overview

Seasoned Management Team With Winning Track Record in Hyperphosphatemia Market

Management

Shalabh Gupta, MD
Chief Executive Officer
NYU Medical Center, Genentech, UBS, Rodman & Renshaw

John Townsend, CPA
Chief Financial Officer
Guardion Health Sciences, Cytori Therapeutics

Doug Jermasek, MBA
EVP, Corporate Strategy
Genzyme-Sanofi, Akebia, Keryx, Pfizer, Abbott

Pramod Gupta, PhD
EVP, Pharmaceutical & Business Operations
Spectrum, B&L, Abbott

Guru Reddy, PhD
VP, Preclinical R&D
Spectrum, Ciphergen, Pangene, Yale

- Led Genzyme/Sanofi global renal business that grew Renvela (sevelamer) to a multi-billion-dollar franchise
- Led commercial team at Keryx that doubled Auryxia year/year revenues for 4 consecutive years
- Led preclinical/clinical and manufacturing development of oxylanthanum carbonate at Spectrum
- Responsible for the successful filing of multiple NDAs

Unicycive Directors & Advisors

Board of Directors

Gaurav Aggarwal, MD
Vivo Capital

Sara Kenkare-Mitra, PhD
President & Head of R&D
Alector

Sandeep "Steve" Laumas, MD
Goldman Sachs,
North Sound Capital

Shalabh Gupta, MD
NYU Medical Center,
Genentech, UBS,
Rodman & Renshaw

Scientific Advisory Board

Ravi Mehta, MD
Prof Emeritus of
Medicine, UCSD

Pablo Pergola, MD, PhD
Director, Clinical Advancement
Center, PLLC, a wholly-owned
subsidiary of Renal Associates

Glenn Chertow, MD, MPH
Chief, Division of Nephrology at
Stanford University School of
Medicine

Myles Wolf, MD
Chair of Medicine at Weill Cornell
Medicine and Physician-in-Chief
at New York Presbyterian/Weill
Cornel Medical Center

Financial Overview

Cash and Share Counts	
Unaudited Cash and Cash Equivalents	$22.3 million (as of June 30, 2025)
Market Cap	$81.8 million (as of August 14, 2025)
Shares of Common Stock Outstanding	17.7 million common shares
Additional Preferred (if converted to common)	1.1 million shares
Fully Diluted Shares (if preferred converted to common)	18.8 million shares
Fully Diluted Market Cap	$86.9 million

Supported by Prominent Healthcare Investors

VIVO CAPITAL · RACAPITAL · BVF PARTNERS L.P. · LOGOS CAPITAL · NANTAHALA CAPITAL MANAGEMENT, LLC · Octagon · Great Point Partners · SILVERARC CAPITAL · VELAN CAPITAL · ROSALIND WALLEYE

Note: *Share counts as of August 14, 2025. Common shares outstanding includes approximately 3.5 million shares sold between July 1, 2025 and August 14, 2025 pursuant to a sales agreement with Guggenheim Securities, LLC, resulting in net proceeds to the Company of approximately $16.3 million.*

Investor Relations

T: (650) 900-5470
ir@unicycive.com

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Potential Commercial Funding

Additional $102 Million in committed capital in three tranches of warrants to support commercialization

Tranche & Amount	Trigger	Exercise Price	Conversion into Equivalent Common Stock
Tranche A: $24.3 MM	FDA Approval	5.40	4.51 million
Tranche B: $25.7 MM	TDAPA Designation	5.90	4.35 million
Tranche C : $51.5 MM	Four quarters of OLC Sales	7.40	6.96 million
Cumulative Warrants (All Tranches)			15.82 million

Potential Future Funding **$102MM**