



PHARMAIN

**PHIN-214: First-in-class
subcutaneous vasopressor
therapy for patients with
advanced cirrhosis**

June 2026

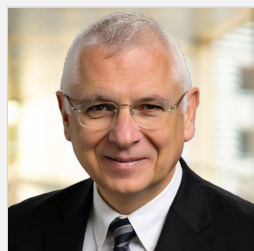
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Leadership team



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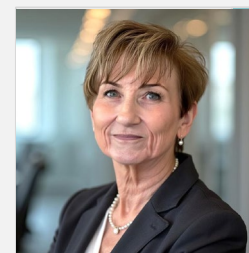
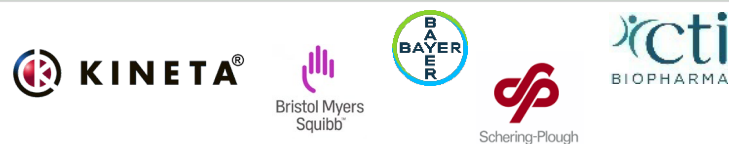
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PHIN-214: Subcutaneous vasopressor therapy for patients with advanced cirrhosis

Developing first-in-class self-administered subcutaneous therapy for patients with advanced cirrhosis



Decompensated cirrhosis

No effective long-term therapies exist for the treatment of decompensated cirrhosis, a high-morbidity, high-mortality condition
~0.5M+ patients affected each year in the U.S.^{1,2}



PHIN-214

The only subcutaneous vasopressor therapy currently in development (phase 1)
Robust evidence of clinical activity after a single dose with manageable safety profile
~\$2.2B U.S. Peak Sales in decompensated cirrhosis population³



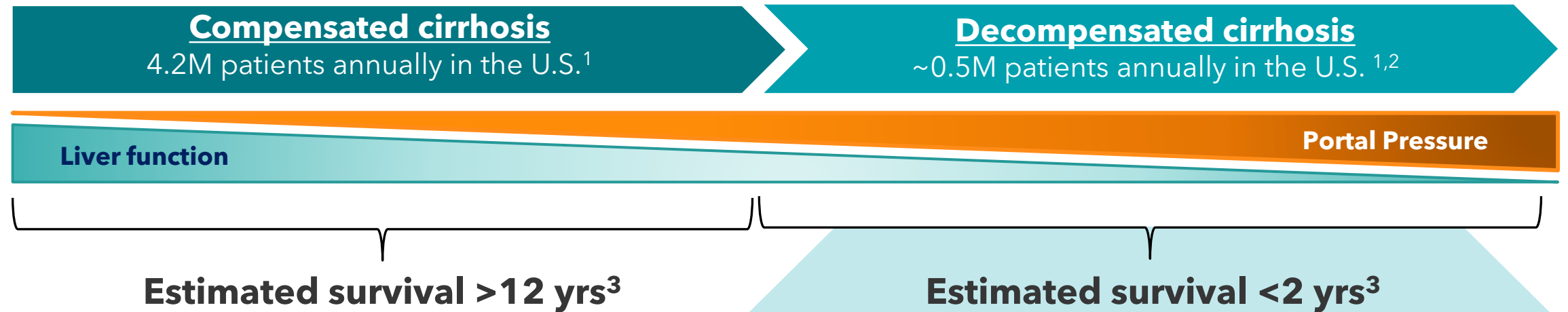
Milestones

Phase 1 Single ascending dose in advanced cirrhosis: **complete**

Phase 1 Multiple ascending dose: enrolling

Complete phase 1 (Q4 2026); Initiate registrational study (YEQ4 2027 est.)

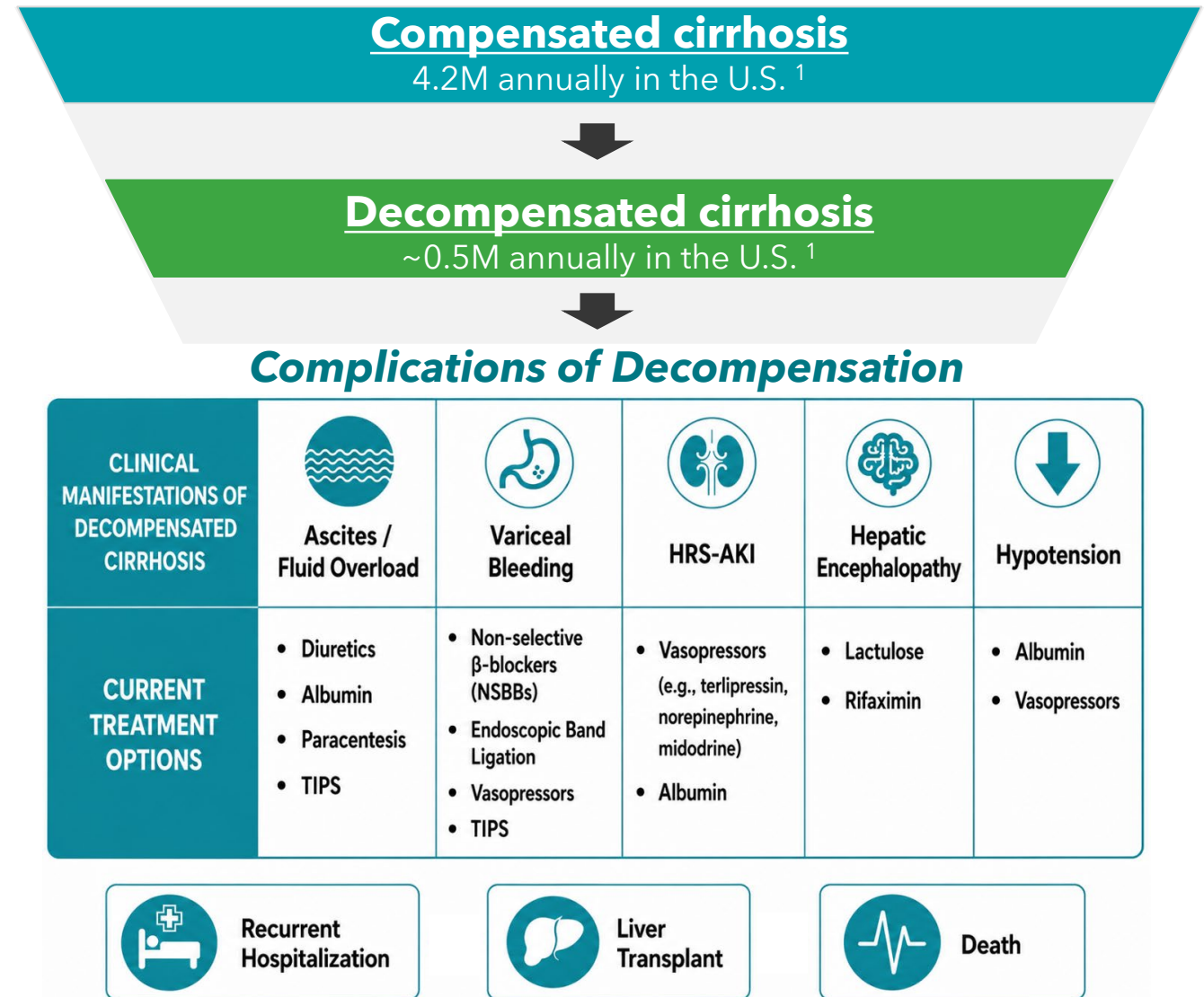
Significant unmet need: Transplant as the only curative treatment option in decompensated cirrhosis



- Portal hypertension drives decompensation
 - **Rapidly progressing disease with immense morbidity & mortality**
 - Abysmal quality of life
 - High healthcare resource burden
- Competitive landscape is wide-open
 - Current treatments are largely palliative - liver transplant is the only curative option
- Potential for life cycle management/market expansion into compensated cirrhosis

Supportive care does not adequately address multi-organ complications of decompensation

- ~12% of cirrhosis patients decompensate each year ¹
- Median survival is ~2 years after decompensation ²
- No effective pharmacological options to treat progression of decompensated cirrhosis
- Liver transplant is currently the only curative option
- Cirrhosis and chronic liver disease are the 9th leading cause of death in the U.S.³, accounting for ~52,000 ³ deaths annually, and is associated with significant morbidity and expense



1. GBD 2017 Cirrhosis Collaborators, *Lancet Gastroenterol Hepatol* (2020) Mar; 5(3)

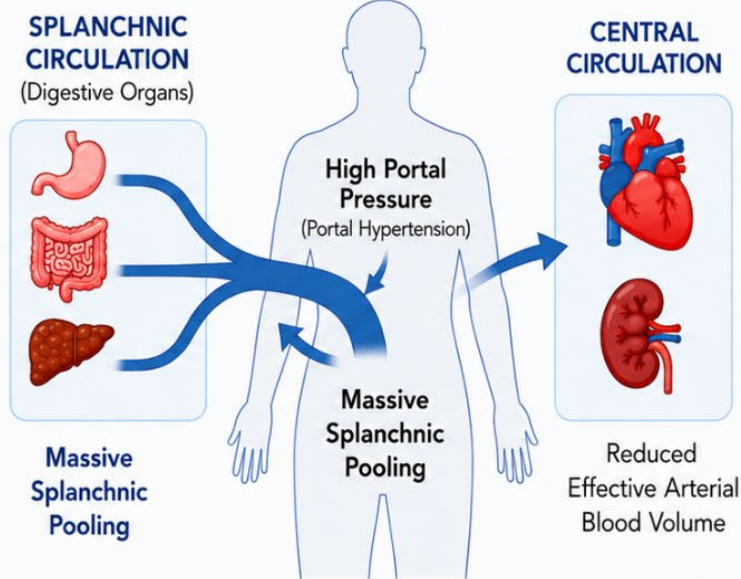
2. Tapper, E.B., et al., *JAMA* (2023)329; pp 1589-1602

3. Centers for Disease Control and Prevention: <https://www.cdc.gov/nchs/fastats/liver-disease.htm>

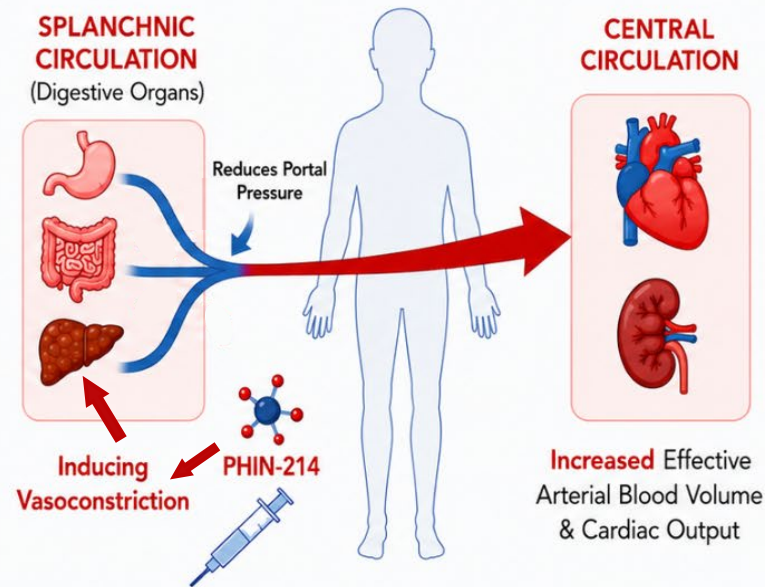
PHIN-214 MOA: Partial V1a agonism causes splanchnic vasoconstriction and relieves portal hypertension

The Problem: Splanchnic vasodilation causes pooling of blood in the digestive vasculature, reducing effective circulating volume and driving portal hypertension in advanced cirrhosis.

BASELINE (Decompensated Cirrhosis)



AFTER TREATMENT (Vasoconstriction Induced by PHIN-214)



Downstream impacts

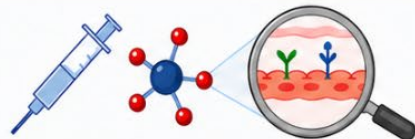
- Ascites, variceal bleeding, and hepatic encephalopathy
- Heart and kidneys receive inadequate perfusion, causing hemodynamic instability and renal failure (HRS or hepatorenal syndrome)

PHIN-214

- Selectively induces splanchnic vasoconstriction, physically narrowing the dilated vessels
- Mobilizes pooled blood back into the central circulation

1

PHIN-214 Splanchnic-Targeted Vasoconstriction



2

Clinical Outcomes

- Reduced Portal Pressure
- Increased Effective Arterial Blood Volume
- Improved Renal and Central Perfusion

Development status: Phase 1 Single Ascending Dose complete; Multiple Ascending Dose enrolling

Single Ascending Dose (Complete); n=16

Advanced liver
cirrhosis
(Child-Pugh A/B)



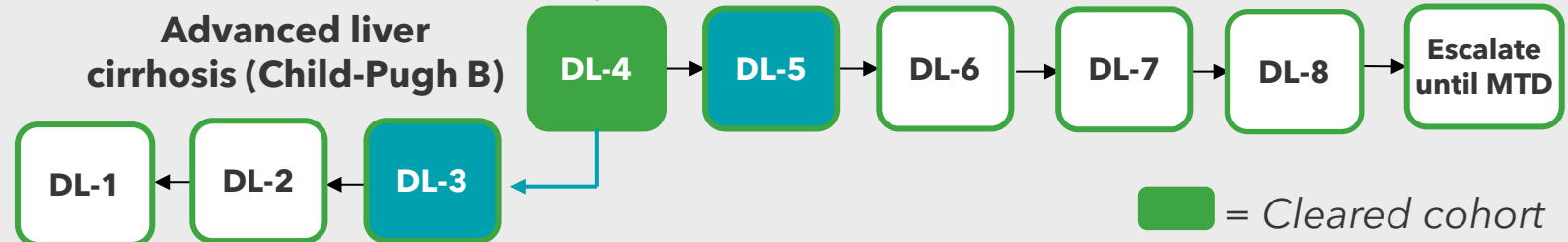
■ = Cleared cohort
DL = Dose Level

Clinical sites



Multiple Ascending Dose (Enrolling)

Advanced liver
cirrhosis (Child-Pugh B)



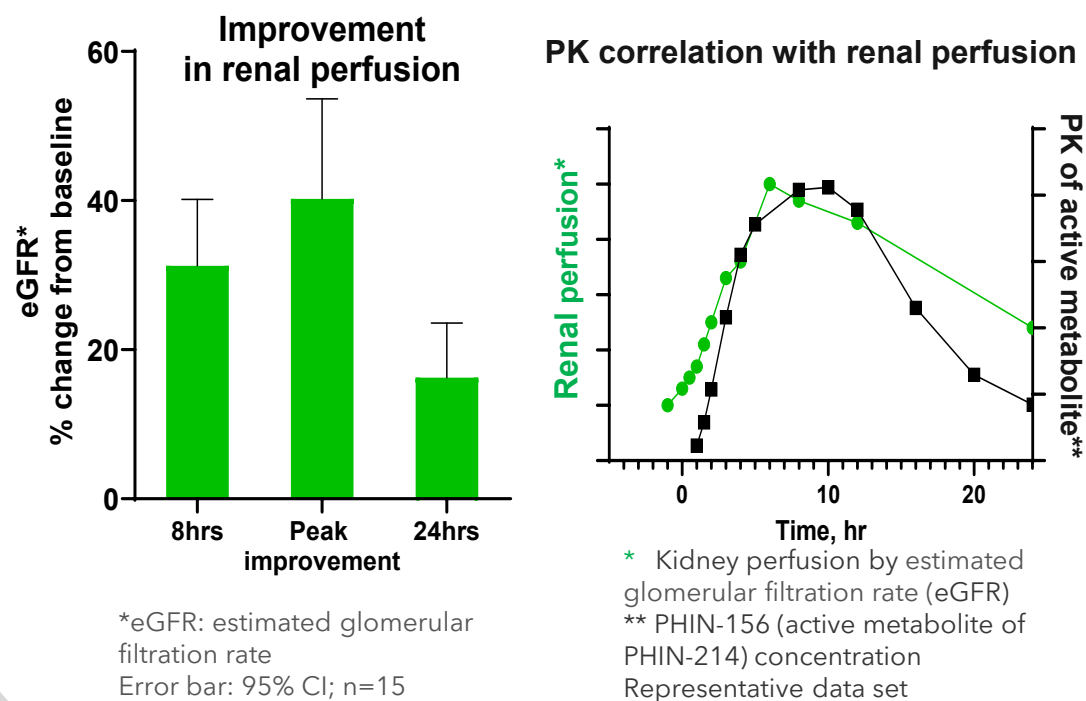
Parallel enrollment of lower doses
following clearance of higher dose levels

■ = Cleared cohort
■ = Enrolling
DL = Dose Level

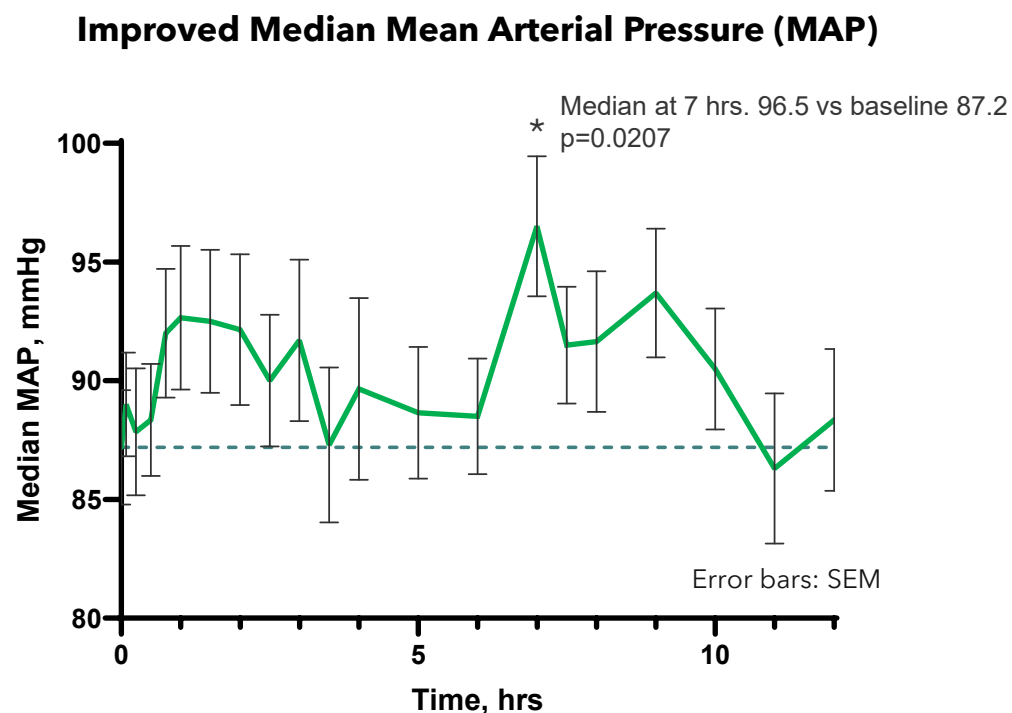
Primary objectives include safety, tolerability, PK/PD assessments, and evidence of clinical activity (renal function)

Compelling evidence of clinical benefit after a single dose

- Improved renal perfusion observed in all subjects, across all dose levels
- Clinical activity sustained up to 24h
- Improved renal perfusion correlates strongly with PK of active metabolite



- Median Mean Arterial Pressure (MAP) increased ~3.24 mmHg over the first 12 hours following PHIN-214 administration, with a significant median MAP increase at 7 hours post treatment



PHIN-214 was generally well tolerated across dose levels; emerging safety profile is consistent with V1a activity

- Only 4/15 patients experienced AEs (mostly grade 1-2) related to PHIN-214 administration

Reported AEs possibly/probably/definitely related to PHIN-214 administration

Dose Level	Subject	AE (verbatim term)	CTCAE Grade	Relationship to PHIN-214*	DLT
4	106-028	Injection Site Reaction-Blanching	1	Definite	No
5	107-032	Acid Reflux	2	Possible	No
		Abdominal pain	1	Possible	No
		Diarrhea	1	Possible	No
6	100-027	Diarrhea	2	Probable	No
8	105-037	Increased systolic blood pressure	3	Probable	YES
		Blood in stool	2	Possible	No
		Abdominal cramping	2	Probable	No
		Weight loss	1	Possible	No
		Nausea	1	Possible	No
		Headache	1	Possible	No
		Abdominal distension	1	Possible	No
		Irregular, frequent bowel movements	1	Possible	No

**Physician designated relationship to PHIN-214*

Future development



Primary indication

- Prevention of disease progression in patients with decompensated cirrhosis (~0.5M patients annually in U.S.)
- Study Design: Randomized, double-blind, placebo-controlled study evaluating PHIN-214 plus SoC vs SoC alone
- Primary Endpoint: Time from randomization to disease progression (further decompensation) or death [composite endpoint]



Regulatory outlook

- Primary endpoint follows FDA guidance to industry in patients with compensated cirrhosis [Public FDA guidance: NASH with Compensated Cirrhosis [Link](#)]
- Potential for expedited development designations: extremely high unmet need, high morbidity, mortality & healthcare-resource burden
- Planned Breakthrough or Fast Track Designation submissions immediately following Phase 1 MAD completion



Label expansion opportunities

- Prevention/delay of decompensation in compensated patients with clinically-significant portal hypertension at high risk of decompensation
- Treatment of patients with AKI/CKD at high risk of progression or hospitalized patients with Acute-on-Chronic Kidney Failure (ACLF)

PHIN-214: Major Catalysts including anticipated initiation of registrational study in 2027

Milestones	2026		2027			
	Q3	Q4	Q1	Q2	Q3	Q4
✓ Completed phase 1 SAD study						
✓ Initiated phase 1 MAD study						
✓ Completed 90-day GLP tox study						
Interim MAD data release (under CDA)		●				
Establish MTD/OBD*		●				
Type C FDA meeting		●				
End of phase 1 Type B FDA meeting				●		
Initiate chronic GLP tox study			●	→		
Initiate registrational study						●

*MTD = Maximum tolerated dose

*OBD = Optimal biological dose

PHIN-214: Partnership opportunity to translate compelling clinical activity into blockbuster potential



Feature

- Subcutaneous vasopressin analog
- Patent protection up to 2041
 - US: issued
 - China, EU, Japan: published
- Established & scalable manufacturing, liquid form stable at RT
- Low cost of goods



Opportunities

- A novel therapy for long-term treatment providing:
 - Inpatient & at-home care applications
 - Addresses immense unmet need, improves morbidity & mortality
- Potential U.S. peak sales in decompensated cirrhosis: ~\$2.2B³



Clinical

- Target indication with ~0.5M+ patients in the U.S.^{1,2}:
 - Prevention of disease progression in patients with decompensated cirrhosis
- Potential for label expansion

1. GBD 2017 Cirrhosis Collaborators, *Lancet Gastroenterol Hepatol* (2020) Mar; 5(3);

2. Ladner, D. P, et al., *PLoS ONE* (2024) 19(2): e0298887.

3. Based on addressable population with inclusion/exclusion criteria, patients with clinically significant hemodynamic dysfunction, 25% peak penetration, a conservative analog-based WAC and standard market access and compliance adjustments.

Accelerating clinical momentum for PHIN-214

- Current data support continued development of PHIN-214 as a self-administered, SC therapy for complications of portal hypertension in decompensated cirrhosis
- Emerging MAD data remain consistent with SAD, supporting a favorable tolerability profile and clear indications of clinical activity
- Enrollment accelerated with site expansion and additional subjects queued
- MAD data will be presented at the AASLD annual Liver Meeting 2026 (Nov 5-9, Denver)
- Engagement with regulators planned for Q4 2026
- Complete phase 1 MAD (Q4 2026); Initiate registrational study (YE 2027)

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