



Computing The Future of Medicine™

Non-Confidential
February 2024

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Forward looking statement

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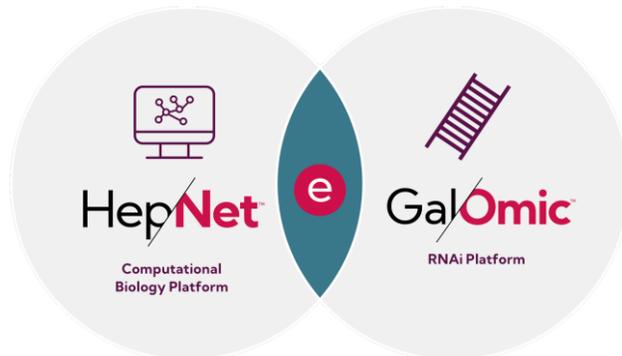
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Company Overview

Driving innovation at the intersection of AI and precision medicine

Our mission:

Integrating computational power and biology to discover life-transforming medicines



Full year results ended 31 January 2023

Cash and cash equivalents
£31.7m H1 FY24: £24.8m

R&D spend
£7.2m H1 FY24: £5.3m

Operating loss
£10.2m H1 FY24: £7.0m

R&D tax credit receivable
£1.5m H1 FY24: £2.5m

Multi-disciplinary team
38 FTE H1 FY24: 34

Market cap (31/01/24)
£105.9m



London
Company HQ



Boston

GalOmic™



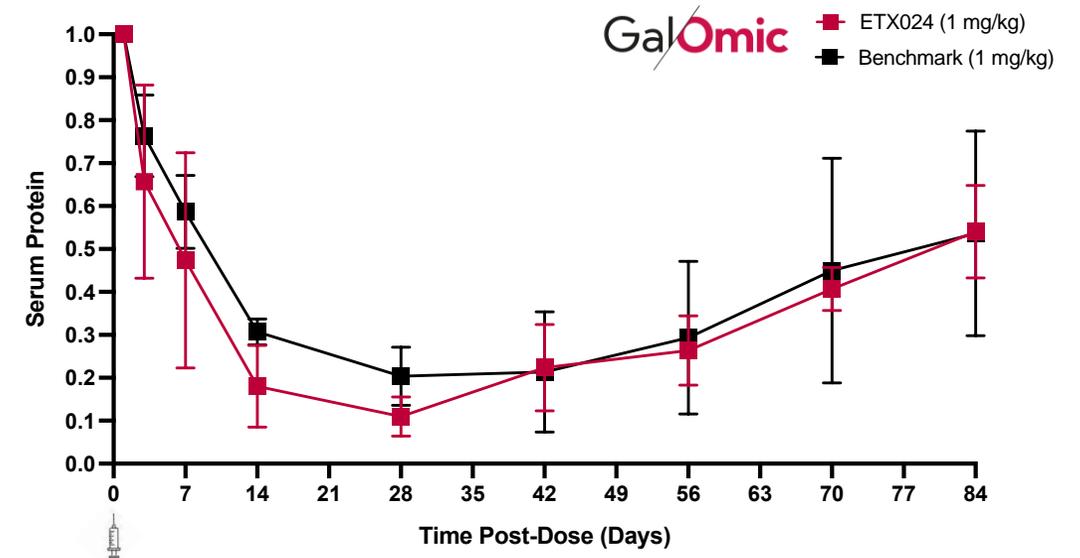
GalOmic™ RNAi Platform For Selective and Effective Gene Silencing

Proprietary RNAi chemistry platform enabling rapid generation of hepatocyte-targeting potent siRNAs

GalOmic™ GalNAc-siRNAs

- ✓ Specific knockdown of target genes in hepatocytes
- ✓ Long duration of action, usually supporting quarterly+ administration in humans
- ✓ RNAi is a commercial stage modality, with exceptional safety and tolerability profile
- ✓ Protected by robust IP portfolio
- ✓ Ability to generate lead candidates in 6 months

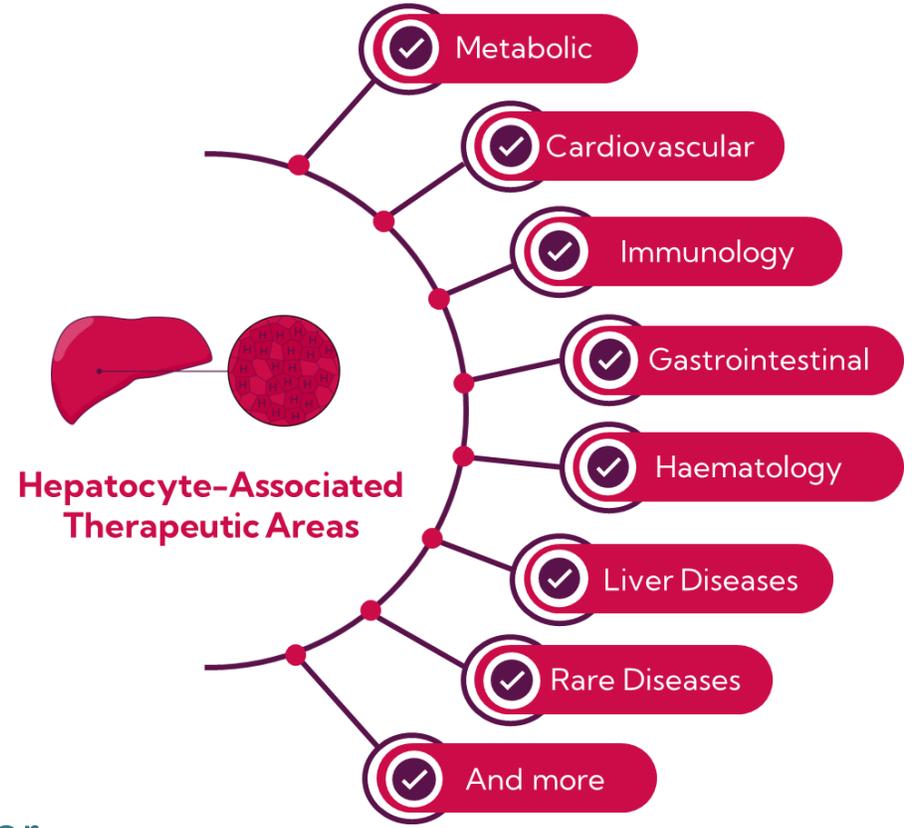
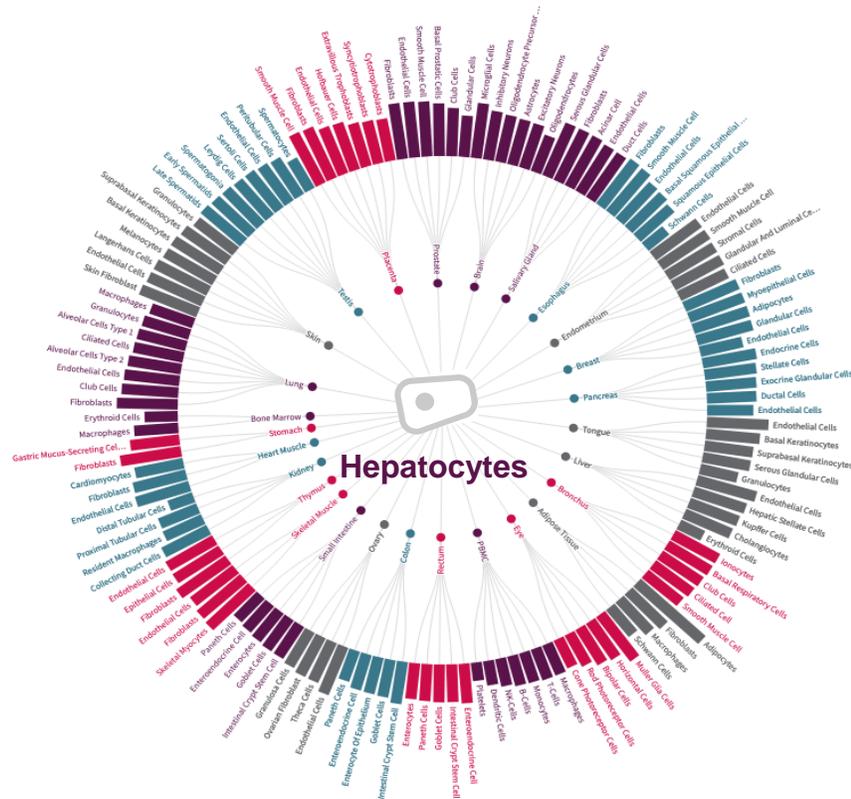
Typical performance profile of GalOmic™ constructs in non-human primate



GalNAc - N-acetylgalactosamine | siRNA - small-interfering RNA

Hepatocytes Drive Processes Underlying Numerous Disease Areas

Hepatocytes influence a wide variety of cell types and tissues beyond the liver



Hepatocytes have a **high level of influence** over other cell types, which we capture in our computational models

Traditional Approaches to Drug Development are Too Slow and Too Expensive

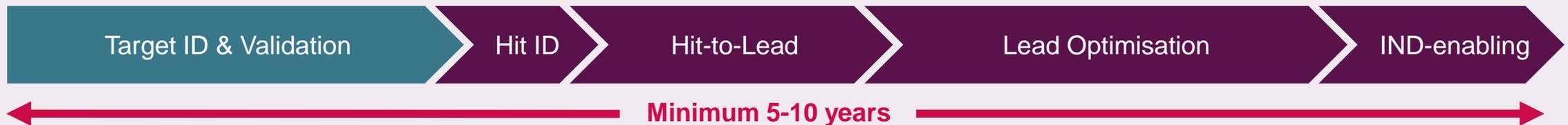
- Typical small molecule preclinical development takes a **minimum of 5-10 years**.
- Enabled by computation and use of the RNAi modality, we can go from gene target selection to disease model experiments in **6 months**, costing **less than \$500,000** and **IND ready in 3 years**.
- This means we can rapidly develop multiple life-transforming RNAi medicines for the people that need them.

e therapeutics Preclinical Development Timeline



ETX's RNAi platform enables rapid and cost-effective drug development

Typical Small Molecule Preclinical Development Timeline

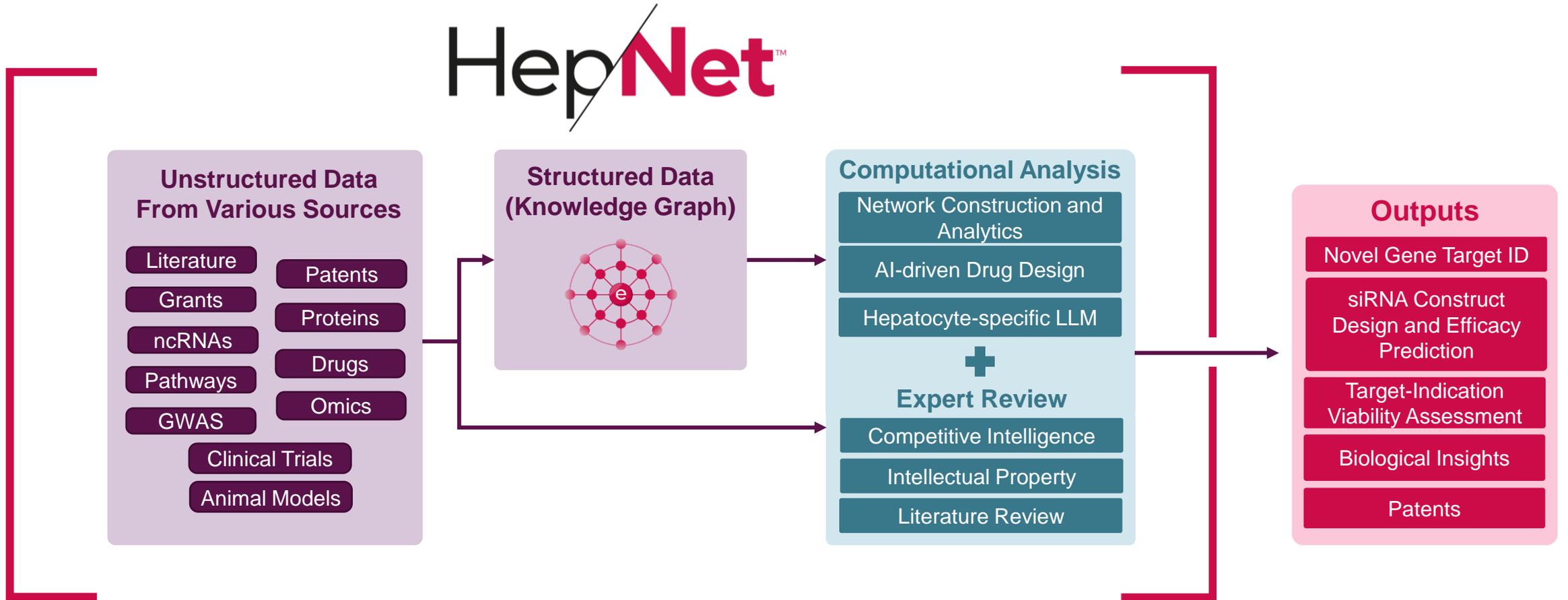


HepNet™



HepNet™

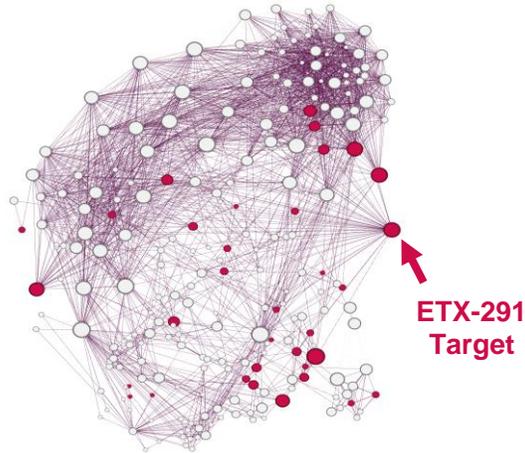
Our world-class hepatocyte-specific computational biology platform



HepNet™ increases automation and provides us with the ability to identify novel targets and rapidly design siRNA constructs.

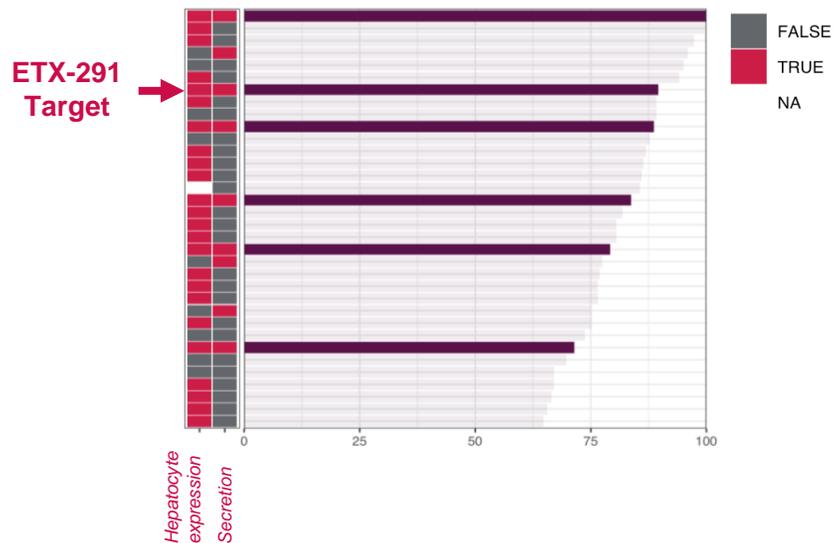
Network Construction and Analysis for Target ID

Computational identification of ETX-291's target gene



HepNet™ predicts link between target and metabolic disease risk:

- Identification of key process from network analysis of metabolic GWAS data (diabetes risk)
- Building a process-specific network model
- Identification of target using proprietary network analysis
- Top proteins ranked using our Key Protein Analysis (KPA) approach - triage of top decile led to identification of an RNAi target selected for evaluation



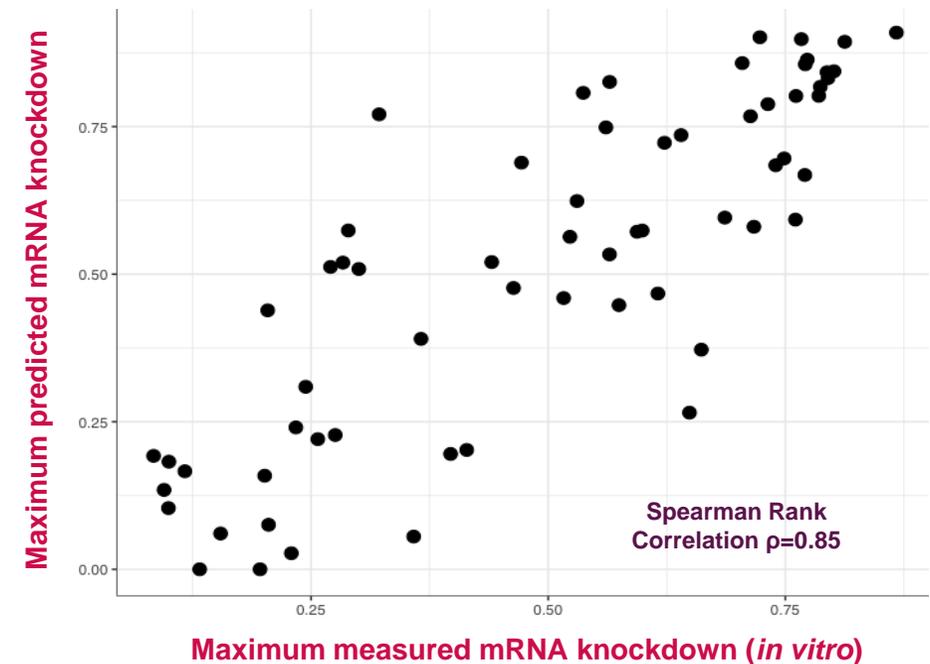
AI-Driven Drug Design

Using AI to predict siRNA efficacy and bypass *in vitro* screening

- Model trained on proprietary, high-quality training datasets, including siRNAs with GalOmic modification patterns
- Trained model has high prediction accuracy, enabling identification of lead siRNA sequences *in silico* and minimising number of sequences screened *in vitro*

In development: further enhancement of predictions using large language models (LLMs) trained on mRNA sequences. This includes prediction of secondary and tertiary structures

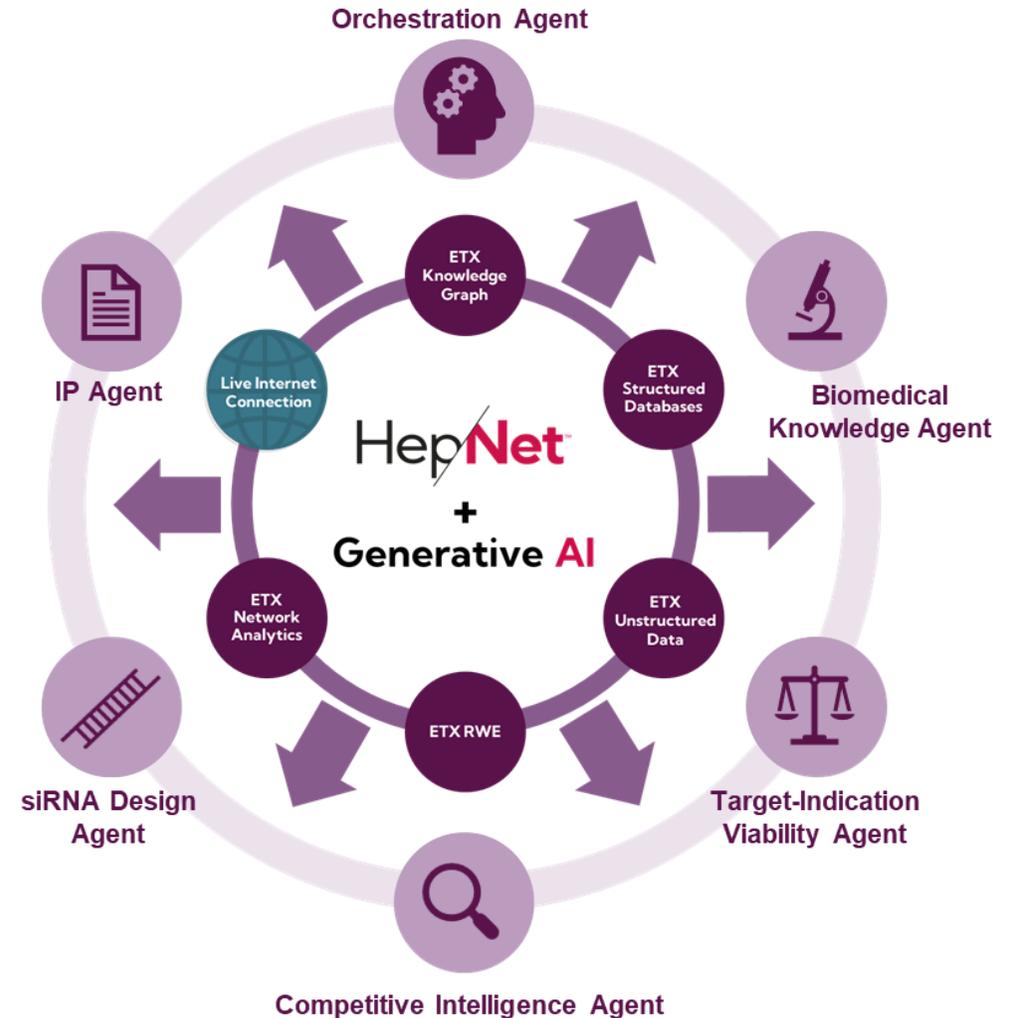
Predicted vs measured siRNA efficacy
(Validation Dataset)



Creating a Hepatocyte-Specific Large Language Model Ecosystem

Transforming HepNet™ into a dynamic knowledge resource through creation of specialist LLM agents

- **LLM agents** trained on specific data will support a variety of ETX's drug development processes including target ID, target-indication viability assessment, and drug design
- This will enhance our ability to understand, reason, and infer from vast amounts of data, increasing **automation and speed** of ETX processes



Therapeutic Pipeline



Therapeutic Pipeline

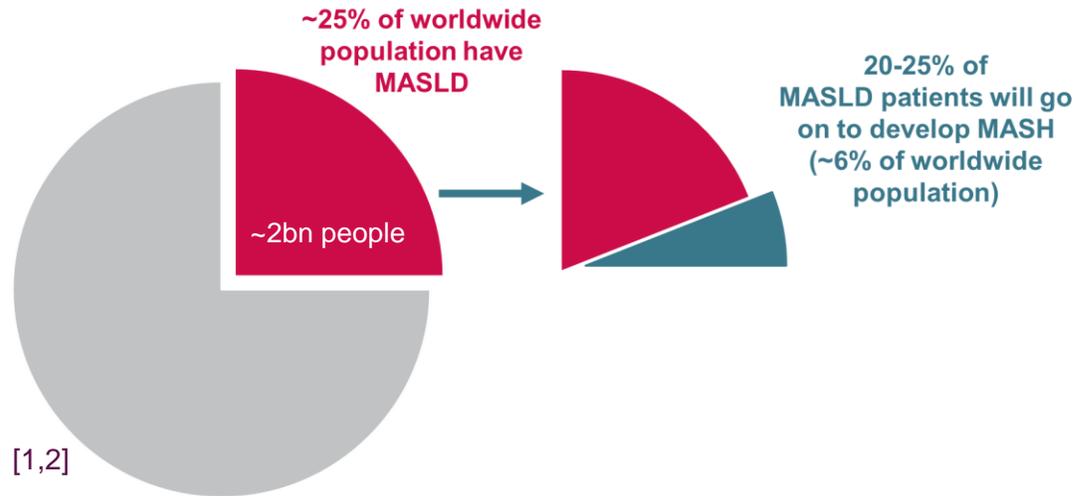
| Program | Indication | Target ID | Drug Design | Proof-Of-Concept | IND-enabling |
|------------------|-------------------------|-----------|-------------|------------------|--------------|
| ETX-312 | MASH | | | | |
| ETX-407 | Dry AMD | | | | |
| ETX-148 | Haemophilia | | | | |
| ETX-291 | Cardiometabolic Disease | | | | |
| ETX-258 | Undisclosed | | | | |
| Multiple Targets | | | | | |

Our candidates pursue novel, highly differentiated targets in a variety of therapeutic areas



ETX-312 for the Treatment of MASH

A safe and effective GalOmic siRNA treatment for a prevalent disease with high unmet need



Currently no FDA approved therapies for treatment of MASH

Target Product Profile



Reduced Steatohepatitis



No Worsening of Fibrosis



Improvement of MASH Biomarkers



Low Treatment Burden



Safe

[1] Younossi, Zobair M.*; Koenig, Aaron B.; Abdelatif, Dinan; Fazel, Yousef; Henry, Linda; Wymer, Mark. Global epidemiology of nonalcoholic fatty liver disease—Meta-analytic assessment of prevalence, incidence, and outcomes. *Hepatology* 64(1):p 73-84, July 2016. | DOI: 10.1002/hep.28431

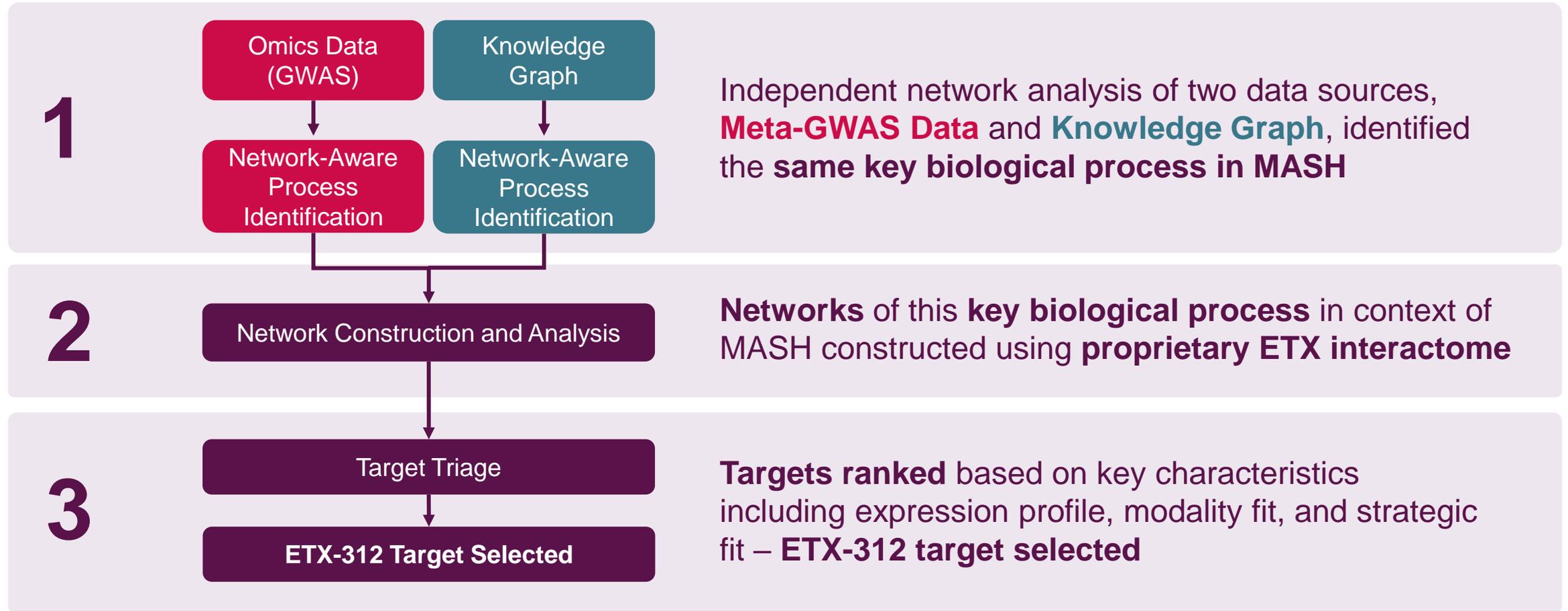
[2] Bellentani S. The epidemiology of non-alcoholic fatty liver disease. *Liver Int.* 2017 Jan;37 Suppl 1:81-84. doi: 10.1111/liv.13299. PMID: 28052624.

*MASH - metabolic dysfunction-associated steatohepatitis is now the replacement term for NASH



ETX-312 Computational Target Identification

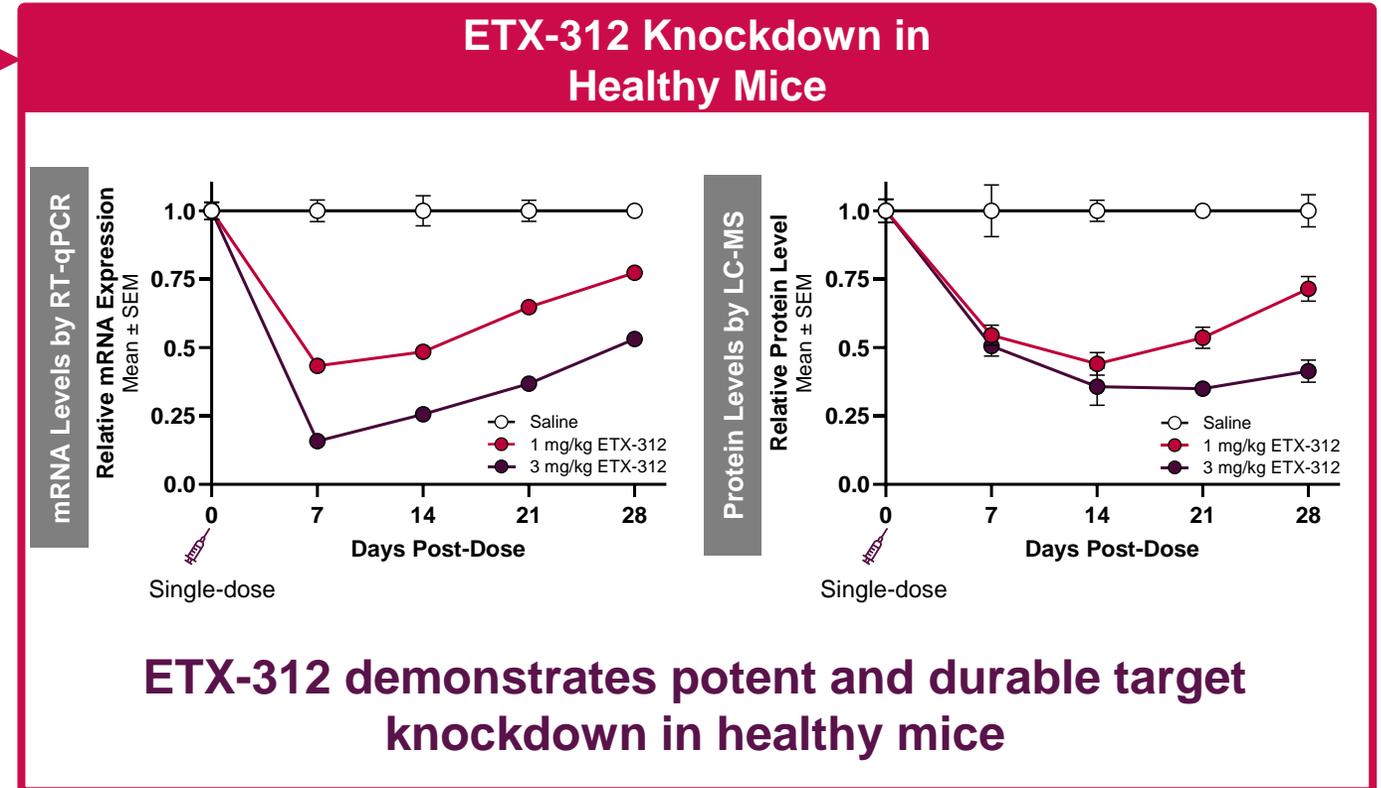
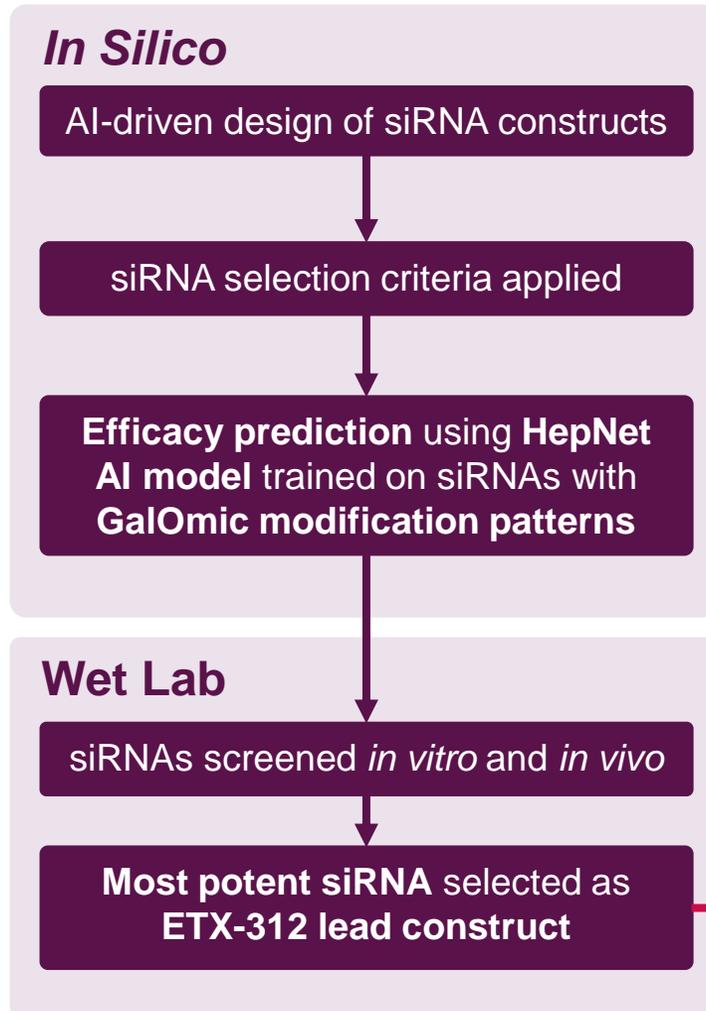
HepNet data foundation and analytical functionality deployed for target ID



ETX-312 Construct Design, Selection, and Performance



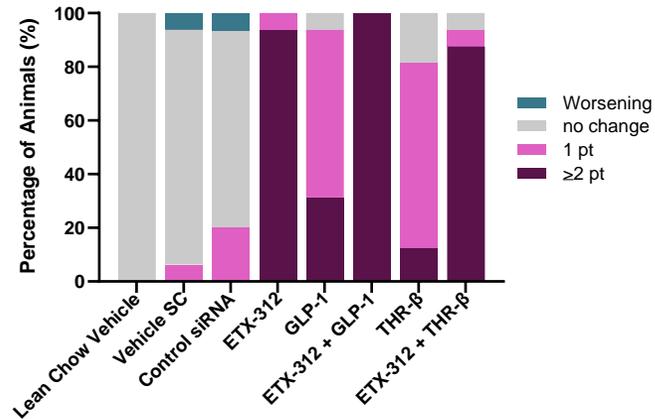
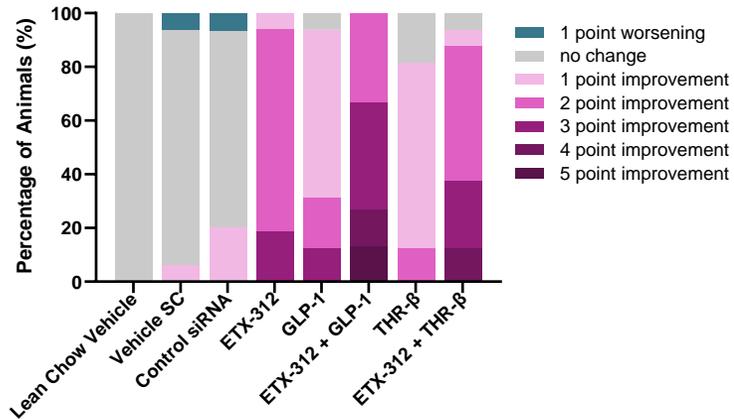
Efficacy of all possible constructs ranked *in silico* using AI model trained on GalOmic siRNA chemistry



ETX-312 Demonstrates Significant Therapeutic Benefit in the Gubra DIO-MASH Mouse Model

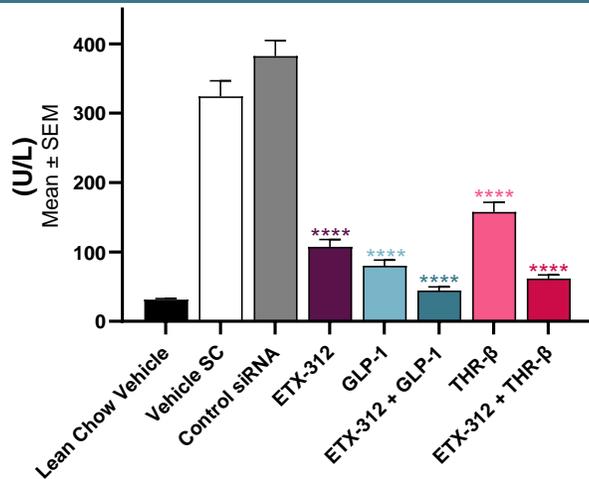


NAFLD Activity Score

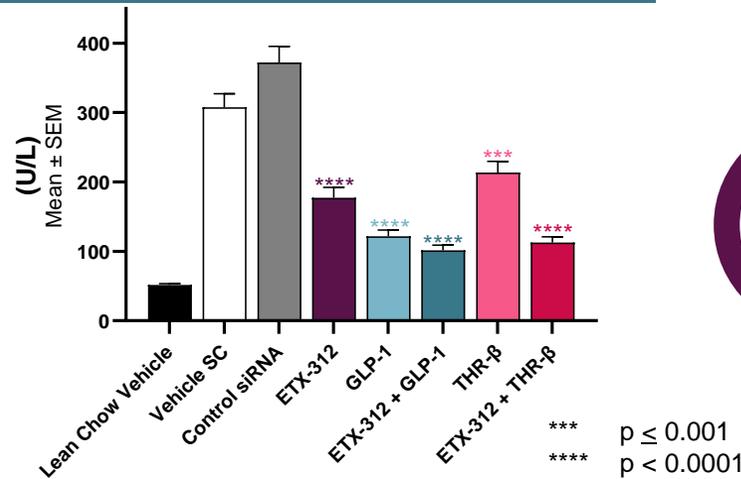


- ETX-312 **dramatically improved the NAFLD Activity Score** alone or in combination with either a GLP-1 or THR-β agonist
- ETX-312 treatment **improves liver function**
- Significant reduction in ALT and AST levels** was observed with ETX-312 treatment alone or in combination

Plasma ALT



Plasma AST



ETX-312 clinical candidate nominated and proceeding to IND-enabling studies

*** p ≤ 0.001
**** p < 0.0001



ETX-407 for the Treatment of Dry AMD

Providing an effective alternative to invasive intravitreal injections



288 million people worldwide projected to have AMD by 2040 [1]



No. 1 cause of blindness in adults aged 60 yrs and older [2]

- Dry AMD **severely impacts vision and daily life** for millions – 16% of patients progress to legal blindness within two years of diagnosis. [3]
- All approved treatments for dry AMD are **intravitreally injected** – urgent need for **lower burden treatment**

Target Product Profile



Human Genetic Validation



Precision Medicine Approach



Effective Target Inhibition



Low Treatment Burden



Safe

[1] Wong, W.L. et al. (2014) "Global prevalence of age-related macular degeneration and disease burden projection for 2020 and 2040: a systematic review and meta-analysis," The Lancet Global Health, 2(2), pp. e106–e116. Available at: [https://doi.org/10.1016/s2214-109x\(13\)70145-1](https://doi.org/10.1016/s2214-109x(13)70145-1).

[2] VISION 2020 Global Initiative for the Elimination of Avoidable Blindness: Action plan 2006-2011. World Health Organization, 2007. World Health Organization report called: "Global data on visual impairment 2010" (WHO/NMH/PBD/12.01)

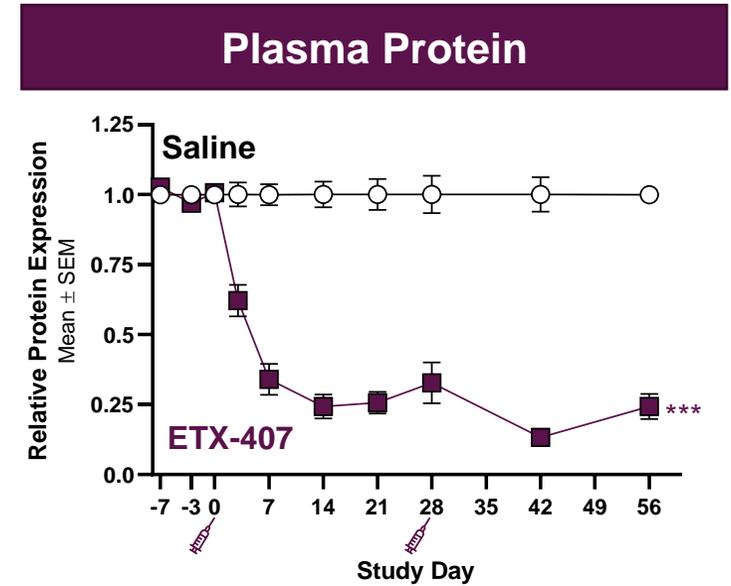
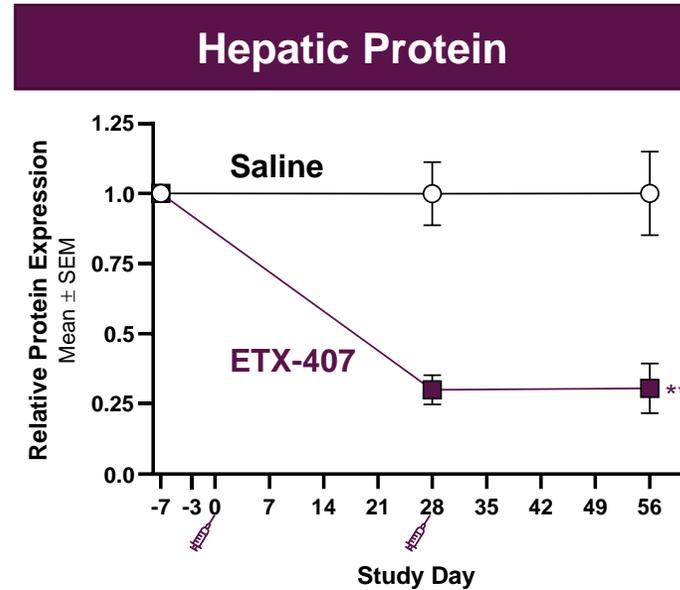
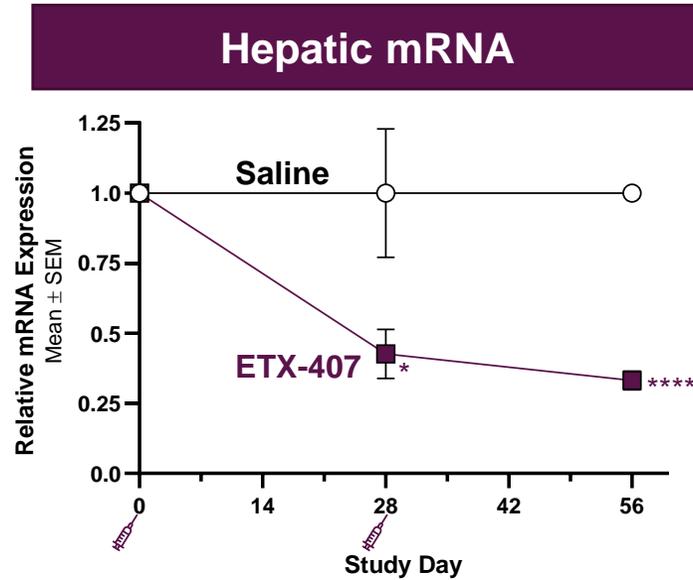
[3] Chakravarthy U, et al. (2018) Ophthalmology, 125(6):842-849.



ETX-407 Lead Candidate Selected Based on NHP Study Results

ETX-407 demonstrates the applicability of ETX's hepatocyte-targeting GalOmic platform in indications affecting distal organs

ETX-407 constructs were tested *in vivo* in *Cynomolgus macaques*



- ETX-407 effectively reduces target mRNA and protein in the liver following 1 and 2 doses (3mg/kg)
- Deep knockdown of circulating, as well as ocular, protein levels confirmed

 **ETX-407 clinical candidate nominated and proceeding to IND-enabling studies**

* p ≤ 0.05
** p ≤ 0.01
*** p ≤ 0.001
**** p < 0.0001

Continued Progress on All Pipeline Assets

ETX-148 and ETX-291 PoC datasets generated in disease models support our therapeutic hypotheses

ETX-148



for the treatment of Haemophilia

Addressing the **key unmet need of haemarthrosis** with a safe approach and low treatment burden

- **Joint bleed protection** demonstrated in haemophilia models (A and B)
- **No thrombosis risk** seen, supporting both monotherapy and combination with factor therapies where needed

ETX-291



for the treatment of Cardiometabolic Disease

Meaningfully **lowering cardiometabolic disease risk** with a safe approach and low treatment burden

- Genetic support of target points at **pleiotropic applications and benefit**
- Confirmed **impact on various disease drivers**, including: improved insulin sensitivity, glucose homeostasis, lipoprotein levels, fibrinogen and free fatty acids

Summary

Where TechBio meets genetic medicine

Tangible progress on our mission of *Computing the Future of Medicine*:

- Proprietary, enabling **technology platforms** in AI (HepNet™) and RNAi (GalOmic™)
- Maturing pipeline of **highly differentiated GalOmic RNAi assets** across a variety of therapeutic areas with high unmet need
 - ETX-407 in dry AMD and ETX-312 in MASH progressing to **IND enabling** studies
 - Complete **proof-of-concept** datasets in cardiometabolic disease (ETX-291) and haemophilia (ETX-148), supporting target product profiles
 - ETX-258 progressing in an undisclosed indications
- **Externally validated** computational methods based on network biology, with an additional success **milestone** in iTeos collaboration recently achieved
- A cash position of **c.£20.1m**

 therapeutics

www.etherapeutics.co.uk

