



# Computing the Future of Medicine

Final results for the year ended 31 January 2023

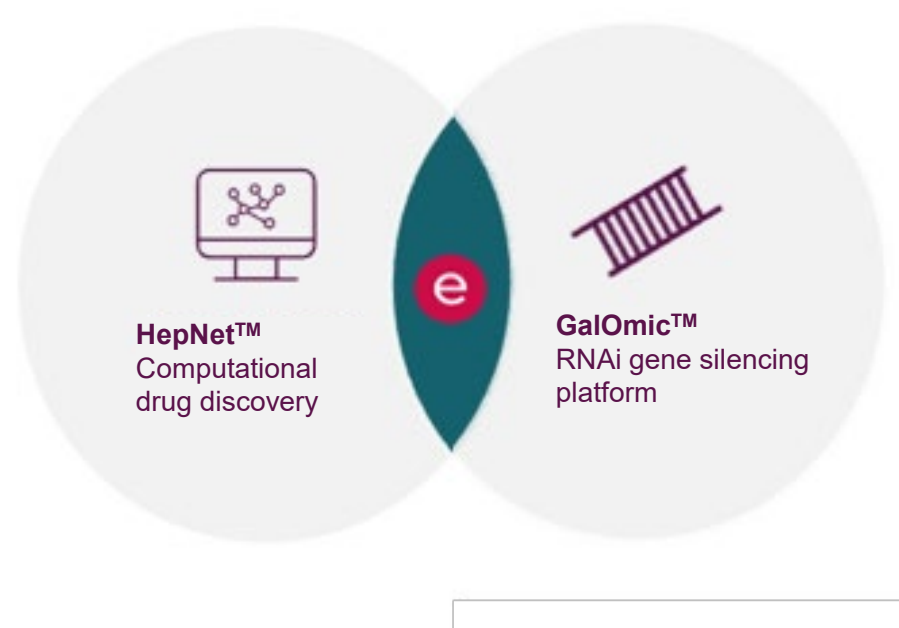
May 2023



# The Power of a Human + Machine Approach

About us – A computational bioTECH

We integrate computational power and biological data to discover life-transforming RNAi medicines



Right where biotech meets tech

# **Final Results for the year ended 31 January 2023**



# Operational Highlights

A year of progress across in-house pipeline and computation

## GalOmic™ and RNAi therapeutic pipeline

- Comprehensive ***in vivo* proof-of-concept data packages** being generated across a variety of areas of high unmet medical need (CVD, NASH, haematology), targeting genes discovered using our HepNet™ computational platform
- Sustained **IP activity** with patent applications filed on eight further inventions arising from the Company's proprietary GalNAc-siRNA technology, GalOmic™. Four additional applications filed post-period

## HepNet™

- **Expansion of knowledge base** of hepatocyte-centric biology, completing proprietary curation of 100s of data sources
- Increased **integration** of HepNet™ functionality and **continued validation** of our tools (e.g. KG and target ID)
- Mapping of **human genetic validation** of potential targets completed for more informed target triage
- Integration of **LLMs, such as GPT-4**, to radically enhance computational capabilities and expansion of AI approaches to predictive siRNA drug design

## Collaborations

- New collaboration with iTeos Therapeutics in immuno-oncology announced in April 2022. Several milestone payments received since, in addition to upfront consideration. Additional milestone achieved post-period
- Successful completion of Galapagos NV collaboration in idiopathic pulmonary fibrosis (“IPF”), with all near-term milestones achieved demonstrating ETX's ability to effectively identify potential therapeutic strategies and targets.

# Financials

Strengthened financial position following successful equity fund raise in September 2022

- Revenues of £0.5 million (2022: £5 million)
- R&D spend of £7.2 million (2022: £6.1 million)
- Operating loss before SBP of £10.2 million (2022 loss: £9.6 million)
- Loss after tax of £8.3 million (2022 loss: £8.1 million)
- £13.5 million before expenses from share placing and subscription completed in September 2022
- Cash and short-term investment bank deposits at 31 January 2023 of £31.7 million (2022: £26.4 million)
- R&D tax credit receivable at 31 January 2023 of £1.5 million (31 January 2022: £1.5 million)
- Headcount - 38 (excluding Non-Executive Directors) at 31 January 2023 (31 January 2022: 35)

# GalOmic™: Our Proprietary siRNA Platform



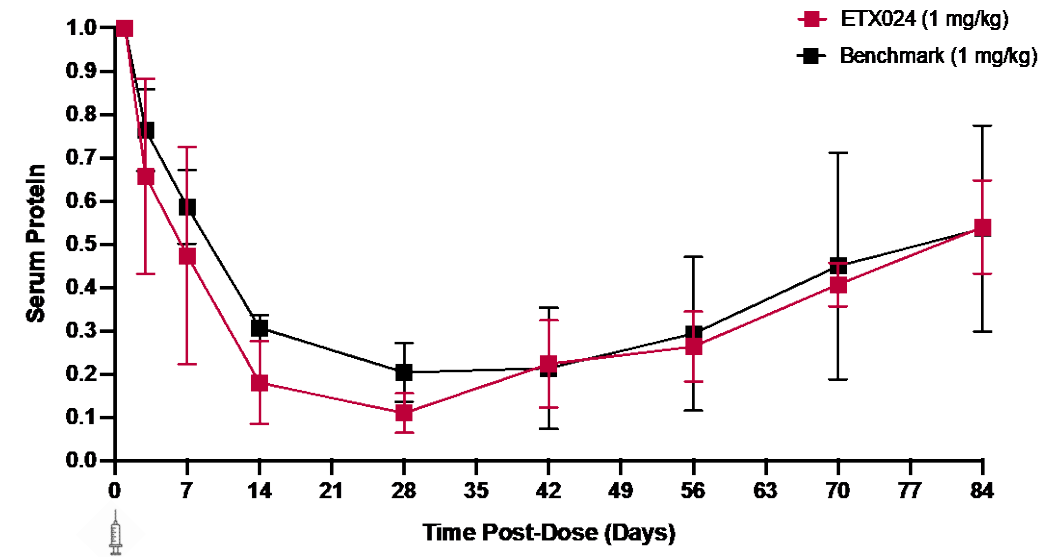
# ETX RNAi Platform – A Powerful, Validated New Drug Class

A highly specific genetic medicine platform to drug our novel target ideas

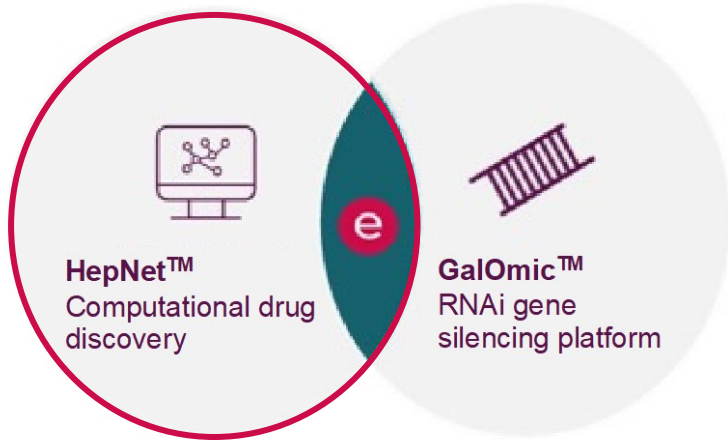
Management team has >10-year track record and scientific experience in RNAi therapeutics

- **Specific delivery** to one cell type (hepatocytes), sparing others
- **Can specifically inhibit** any gene in hepatocytes
- **Long duration** of action (months) & patient-friendly, **sub-cutaneous** injection
- **RNAi drug takes 6 months to design** and costs c.**\$500K**. Big time, cost and specificity advantage compared to traditional small molecule drugs
- **High barrier to entry**, with a very active IP and knowhow landscape
- **Patent applications filed to protect** 17 novel ETX RNAi Platform and gene target inventions
- **Successfully** tested proprietary RNAi Platform in head to head experiments against industry leading technology

## Competitive depth and duration of target knock-down



# HepNet™: Our Computational Biology Platform





# ETX Knowledgebase Captures Hepatocyte Biology as well as Cross-talk with Other Cell Types

Hepatocytes play a key role in 100s of biological processes\*

ETX has data and knowledge on:

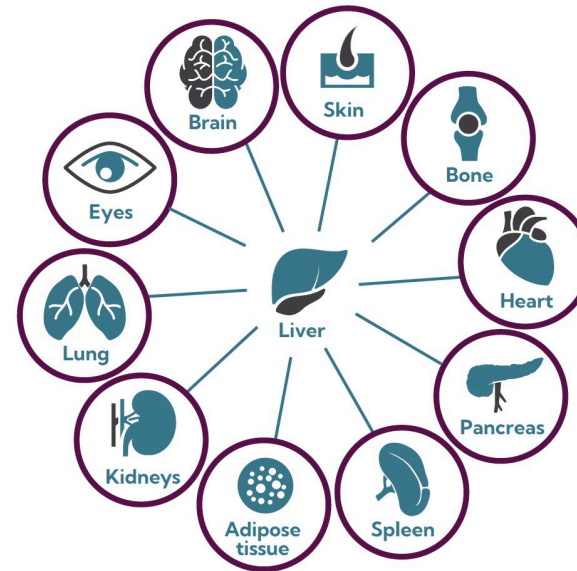
- 12,091 Expressed genes
- 1,039 Secreted proteins
- 461 Proteins secreted to blood
- 7,301 Antisense lncRNA



103 cell types involved in cell-cell interactions with hepatocytes



654 cellular receptors bind proteins secreted by hepatocytes

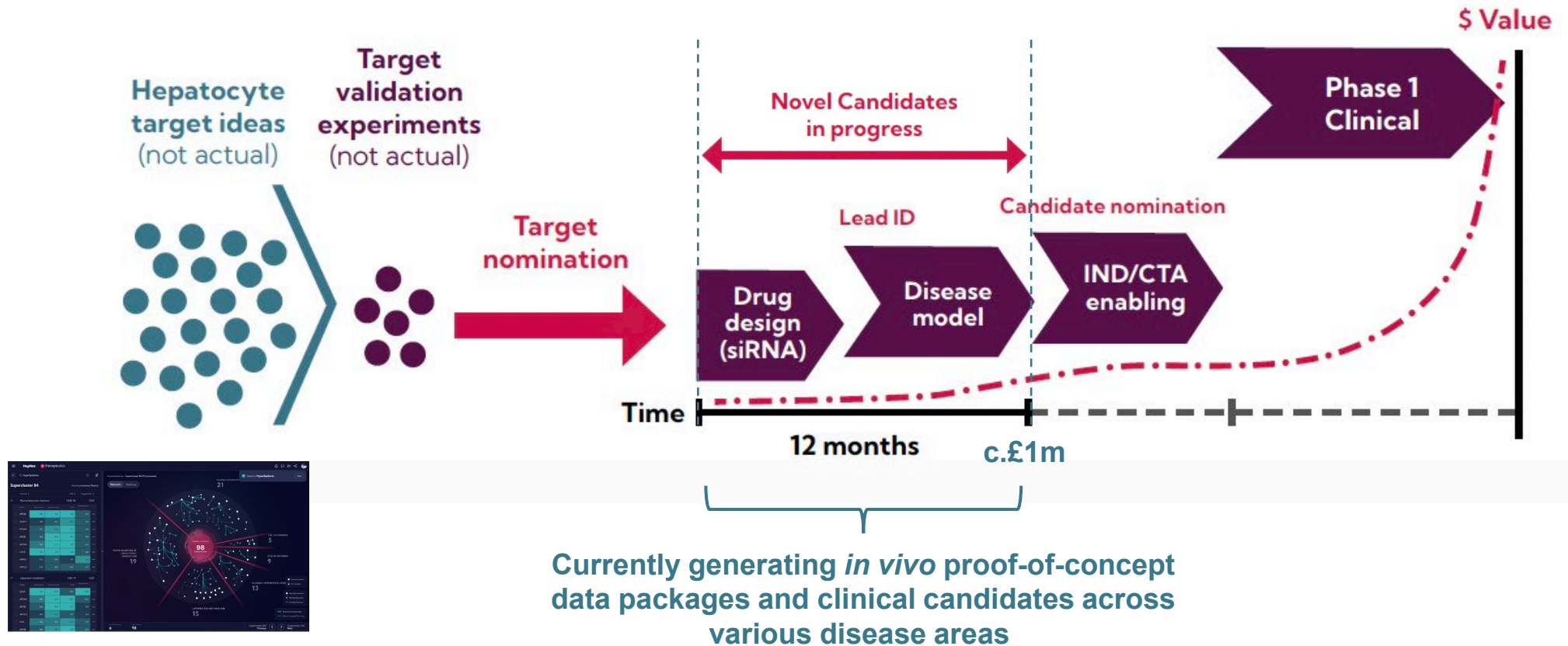


Hepatocyte associated disease areas
Cardiovascular
Metabolic
Diabetes
Haematology
Obesity
NASH
Rare
Other

\* Numbers are derived from ETX proprietary curation and analysis of public 'omics data, proprietary data derived from NLP processing of literature and network-aware ML-driven analysis of curated pathway data

# Pipeline: Generating RNAi Candidates Against our Novel Targets

Several therapeutic candidates in pre-clinical prosecution



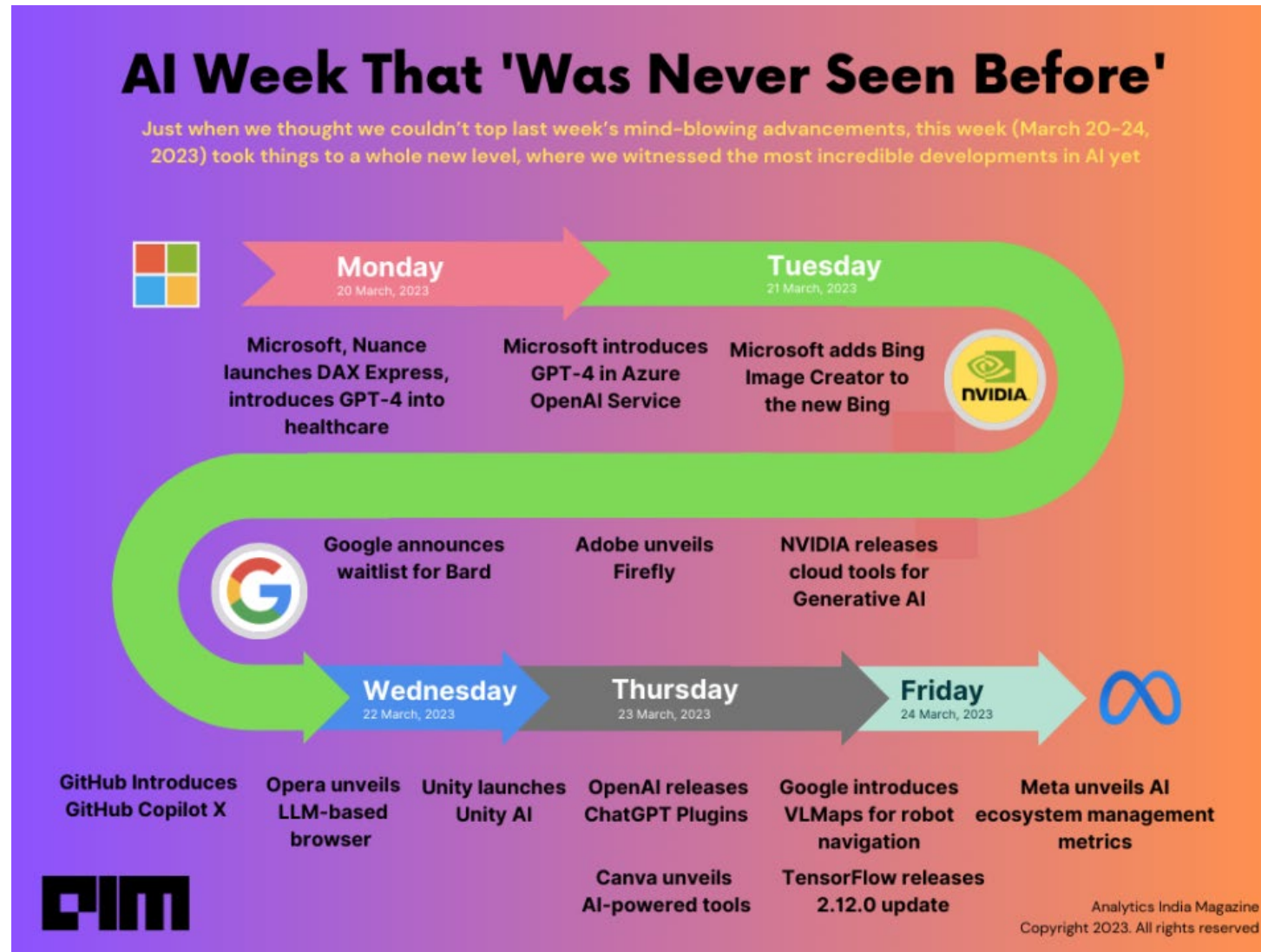
# ETX Powered by LLMs

We Had A Problem With Text!



# ETX Business Dynamics have Changed in a Matter of Weeks

March 20-24 2023



## Calendar of events:

**Nov 2022** – ChatGPT launched (GPT3 based)

**Dec 2022** – Improved embedded ChatGPT model

**14 March 2023** – GPT4 launched

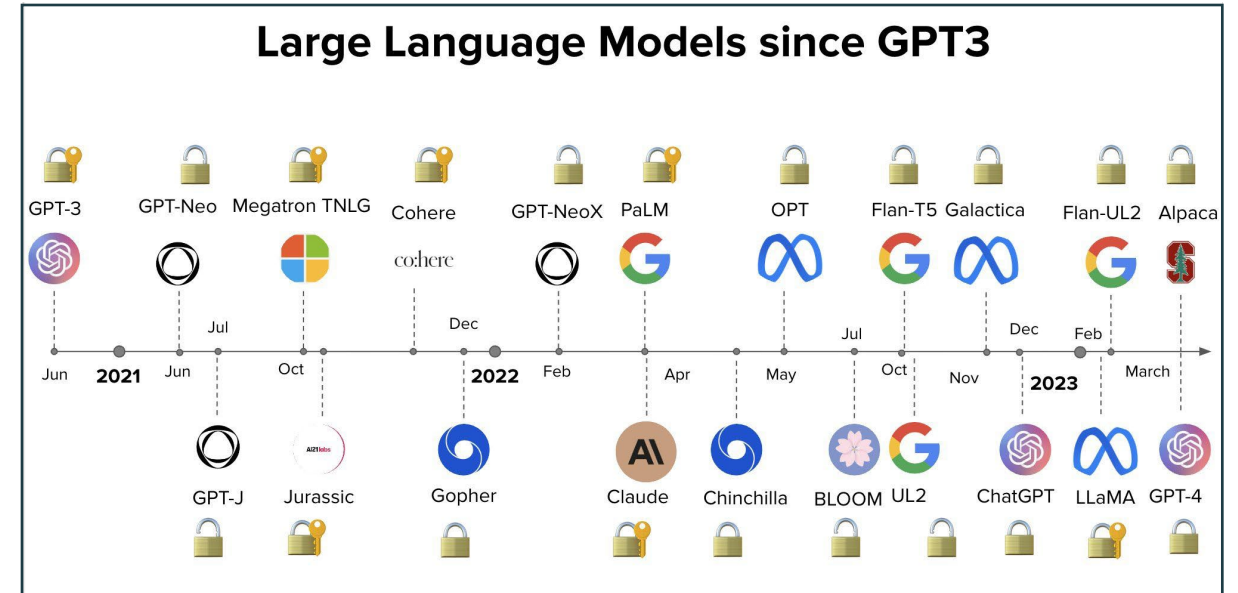
**ETX actively incorporating LLMs into HepNet™**

# GPT4 and Large Language Models

## GPT4 features:

- Trained on dataset consisting of internet text, books, articles
- Significantly better outputs than GPT3
- Can use images as well as text
- Can write advanced code
- Live internet connection
- Plug-ins which enable
  - Access to real world information
  - Access to specialised & proprietary functionality
- **Not the only LLM but currently the best**

LLMs are advanced computer programs that use artificial intelligence to process and understand human language



# Adding AI Language Capability

A game changing addition to ETX, supercharging our business model



## ETX Specialist 'AI Agents'

Impact of LLM addition - materially increased:

- Scale
- Reasoning & Prediction
- Speed
- Invention rate
- Automation

- ◆ Fine-tuned to our business, projects and processes
- ◆ Trained with hepatocyte-specific data
- ◆ Trained with siRNA sequences/constructs
- ◆ Trained on all relevant scientific papers

*Computing the future of medicine™*

# ETX Before/After LLMs – Case Study : Patent Mining Project

**AIM: Extract, analyse and formulate a patent strategy that takes into account all 400k RNAi related patents from 2001**

	Current approach	ETX AI Patent Agent
Extract and store all relevant patents	+++	
Summarise and categorise patents	+	
Extract all sequences, constructs and performance	++	
Cross talk with HepNet	+	
Understand the syntax of patent documents	manual	
Find gaps for FTO and new IP	manual	
Find new learnings to infer new information	manual	
Find patents in other drug modalities relevant to our targets	manual	
Write new patent applications	manual	

# A Unique Generalisable Model for Drug Discovery

Integrating computational power with biological data to discover novel RNAi medicines



Unparalleled ability to **model complex human biology**



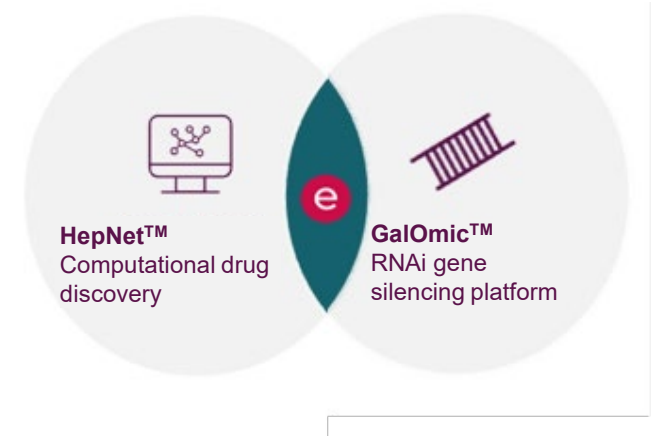
Identify **novel gene targets**



Design **RNAi medicines** that silence those genes



Significantly **accelerated** progress of in-house **pipeline** across multiple diseases



***Computing the future of medicine™***

**...much more than a slogan, now in a near-term horizon**