We Cure Rare Diseases

EverlumeBio

Our Mission

To eradicate rare disease through personalized medicine and genetic cures.

To do this a new model of drug discovery is necessary…

Why Now?

Convergence of Technologies

- AI / ML
- LLMs / Agents
- Genetic editing

Cost of Experimentation Has Dropped Dramatically

- Iterative efficient approach:
  - Running hundreds of experiments on many potential genetic cures
  - Cost is minimal compared to years & billions spent on research before even trying
- This creates tight feedback loops to train AI

Democratizing access to drug discovery…

Everlume's Direct to Patient Cures

Proprietary AI and cell line technologies direct to patients

Dramatically reduces drug discovery costs

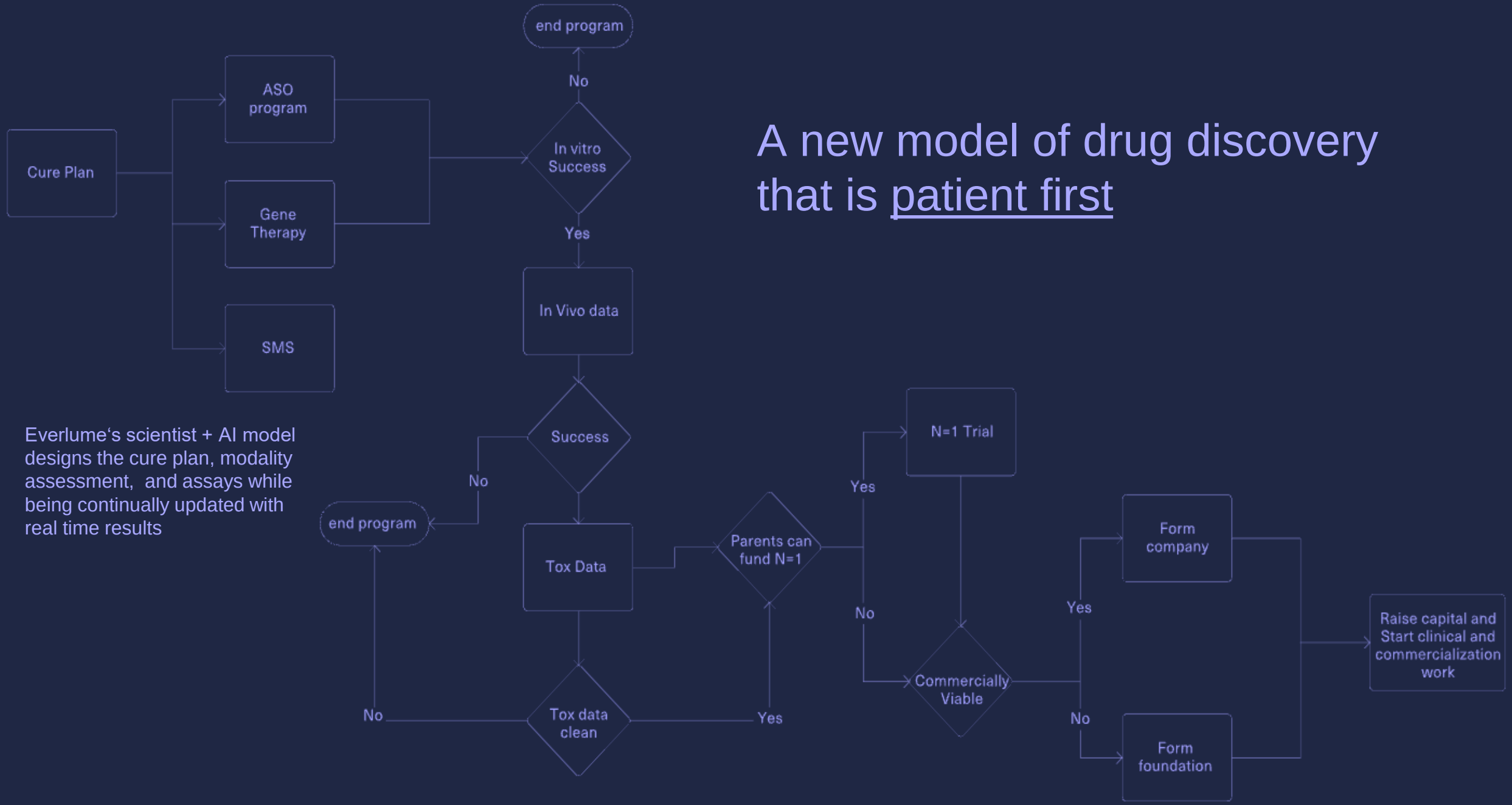
Therapeutics to our patients in 18 - 24 months via FDA N=1 Trials

We then Commercialize the drug for mass usage

We are helping families and building a drug discovery machine

A new model of drug discovery that is patient first

Everlume‘s scientist + AI model designs the cure plan, modality assessment, and assays while being continually updated with real time results



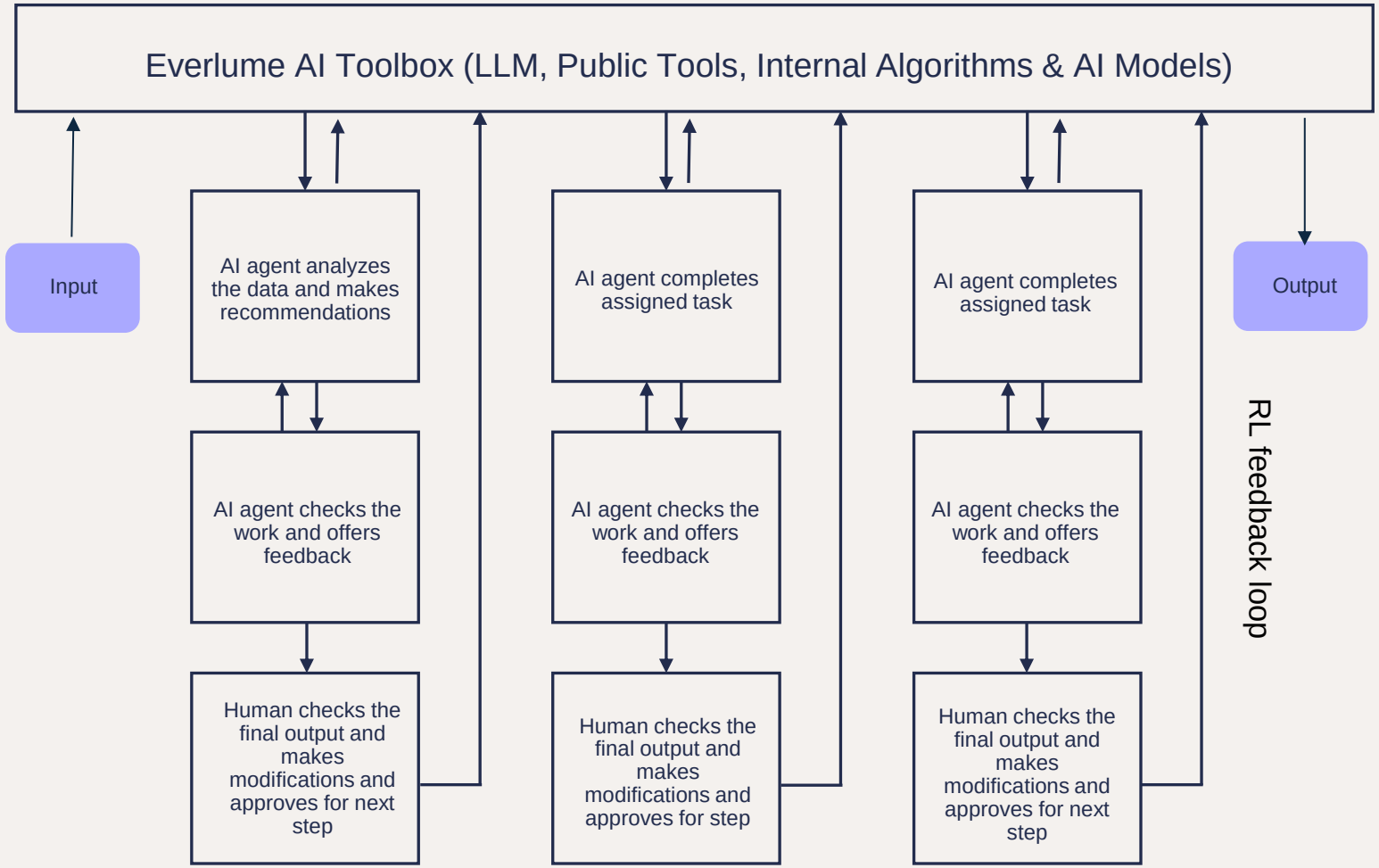
AI and humans – better together

Our Platform

Everlume is building a drug discovery platform that from the ground up will allow humans and AI to work together to cure genetic based rare diseases.

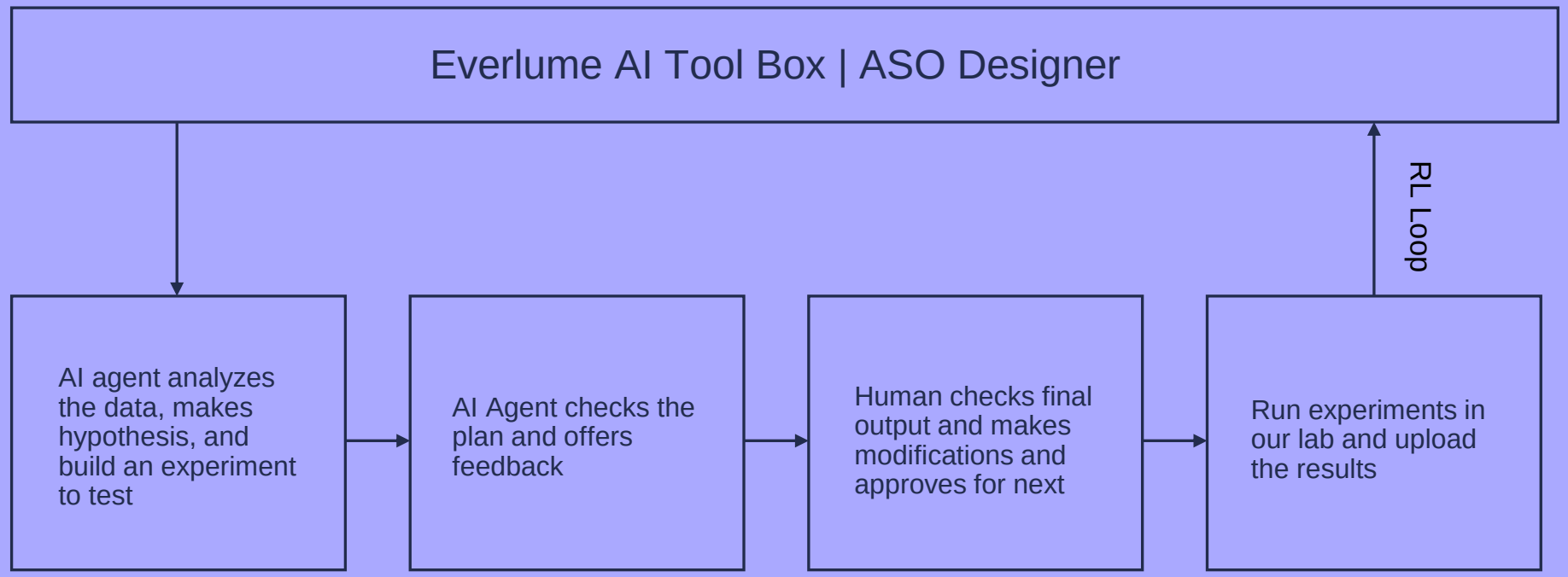
Our platform orchestrates the interaction between agents (trained in life science research), humans, and tools like like our proprietary algorithms and LLMs (both our own fine tuned models and various other frontier models).

As we process more data our platform gets smarter and more efficient. In addition, the frontier models are ever improving.



Quickly verify results in the lab

Everlume has a fully functional wet lab that we can run experiments in to quickly iterate and find an ideal solution. The below is an example of testing ASOs designed by our platform



AI + Biology | The Everlume Rapid Cell Line Platform

Rapid Cell

Rapid cell technology provides an ideal platform for rapid proof-of-concept studies for antisense oligonucleotide (ASO) and gene therapy development.

CRISPR on a switch

Allows researchers to introduce a wide range of disease-causing mutations into a common isogenic cell line and then turn it off

Multiple mutations in the same controlled genetic background

Cell differentiation

Neurons, muscles, and many more

Common isogenic cell line facilitates comprehensive OMICS analysis—such as transcriptomics, proteomics, and metabolomics

Rapid Cell Reporter

Incorporating a fluorescent reporter into the Rapid Cell platform enhances the capability for high-throughput screening of small molecules. By tagging the target gene or pathway with a fluorescent marker, researchers can easily visualize and quantify the cellular response to various small molecule treatments in real time.

Rapid identification of potential drug candidates that modulate the target gene or pathway

Reduces the need for labor-intensive assays

Immediate readout of cellular activity or gene expression change

PERSONALIZED MEDICINE IS IN ITS INFANCY, BUT…

Everlume’s Personalized Medicine Platform is Saving Lives.

Spastic Paraplegia

Gene Therapy - strong in vitro data

To Cure a Rose Foundation

ASO - strong in vivo data

DIPG

ASO - strong in vitro data

And Many More

EverlumeBio

Thank You

Rick Barkley
512-698-8913
rick@everlumebio.com