



Intrepid

Better Medicines, Fast.

Partner Deck



The Problem



Rising R&D Costs

\$100B+ in global R&D costs;
up >50X over the past four
decades.



High Clinical Failures

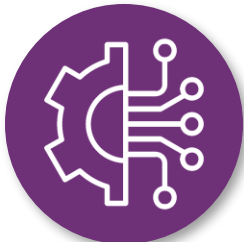
90% of drugs in clinical trials
fail to show improvements in
safety and efficacy.



Same Old Formulations

Off-the-shelf formulations are
cheap and fast but lead to
sub-optimal medicines.

The Solution



AI & Robotics

Enables rapid identification of
the optimal formulation of a
drug.



Optimized Design

Mitigates up to 50% of clinical failures
by developing fit-for-purpose
formulations designed for each drug.



Better Medicines, Fast

Efficient, cost-effective generation of
proprietary formulations with
superior clinical safety and efficacy.

Valiant™: Our Proprietary Solution

Design

1

Intrepid's proprietary active ML algorithm requires only the design space (i.e. drug and excipients) and target product profile to direct formulation development.



Build

2

Intrepid's advanced robotics platform enables autonomous preparation of formulations with a throughput of up to **100 formulations per day**.



Valiant

Design, Build,
Test Loop

Test

3

Intrepid's robotic platform conducts high-throughput physicochemical characterization and testing of the *in vitro* performance of formulations.

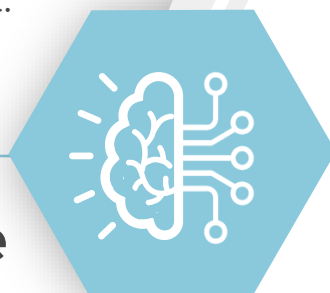


Integrate

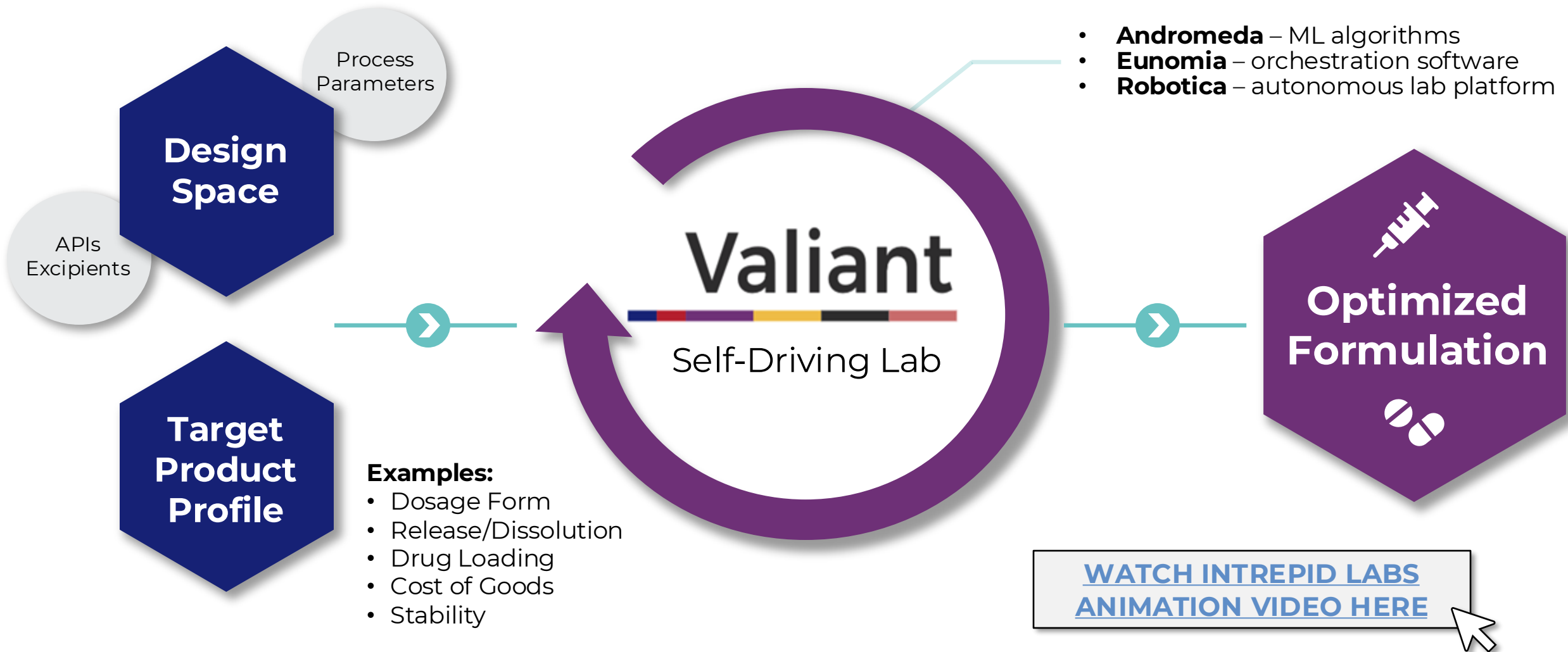
4

The data collected is used to retrain the algorithm, and the cycle continues until lead candidate formulations that match the target product profile are identified.

Valiant™ identifies lead candidates **4 to 11 times more efficiently** than advanced DOE approaches.



Valiant™: Our Proprietary Solution

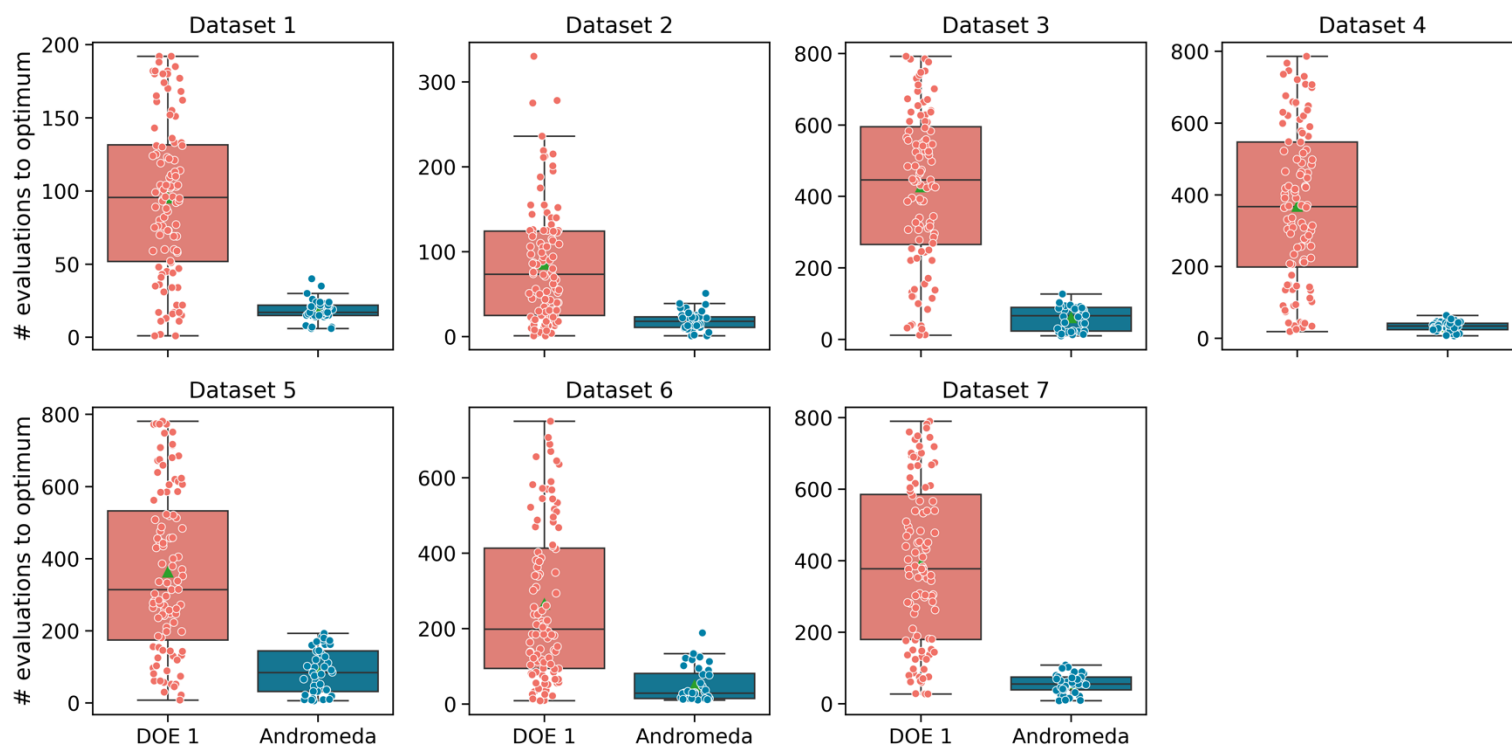


Valiant™: A Paradigm Shift in Drug Development

- **11x Efficiency Gains:** Andromeda outperforms traditional DOE, accelerating formulation development.
- **Integrated Power:** With Eunomia and Robotica, Valiant™ delivers industry-leading efficiency.
- **Partner with Us:** Redefine drug formulation and optimization with cutting-edge automation and AI.

	DOE*	Andromeda*	Acceleration factor
Dataset 1	95.2 ± 5.8	18.1 ± 1.2	5.3
Dataset 2	85.1 ± 7.0	18.8 ± 1.7	4.5
Dataset 3	426.5 ± 21.4	60.7 ± 5.2	7.0
Dataset 4	367.9 ± 21.7	32.9 ± 2.1	11.2
Dataset 5	362.9 ± 22.5	88.0 ± 9.7	4.1
Dataset 6	264.9 ± 20.3	50.1 ± 7.3	5.3
Dataset 7	390.3 ± 22.7	55.4 ± 4.2	7.0

* Following multiple campaigns, this represents the mean number of experiments (+/- error) needed to match a target product profile.



Streamlined Formulation Workflow

Unique formulations prepared and characterized until lead candidates are identified.

**Valiant™
optimization**

Lead candidates are evaluated *in vivo* (and compared to FDA approved product if applicable).

PK studies

**Scale-up lead
candidates**

Lead candidates are scaled up and properties confirmed.

CASE STUDY #1

Extended-Release Product

Valiant™ in Action

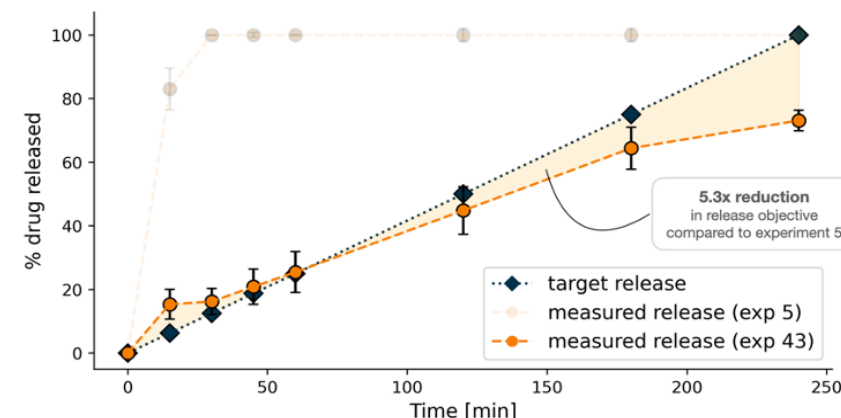
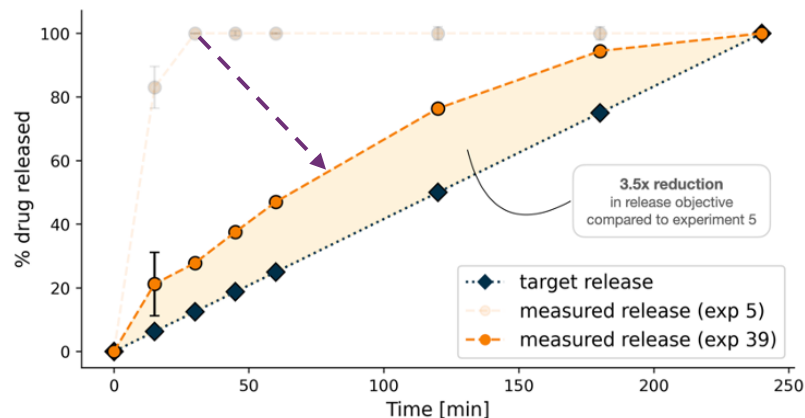
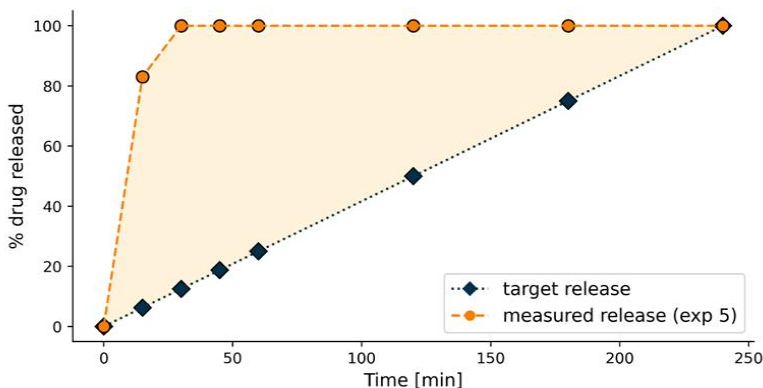
Intrepid

OBJECTIVE: Extended drug release from an oral solid dosage form.

Day 2

Day 10

Day 11



1 Explore

Valiant™ plans and prepares iterative batches of formulations exploring the design space.

2 Learn by Doing

After several batches, Valiant™ develops a deep understanding of the relationships between variables.

3 Target Achieved

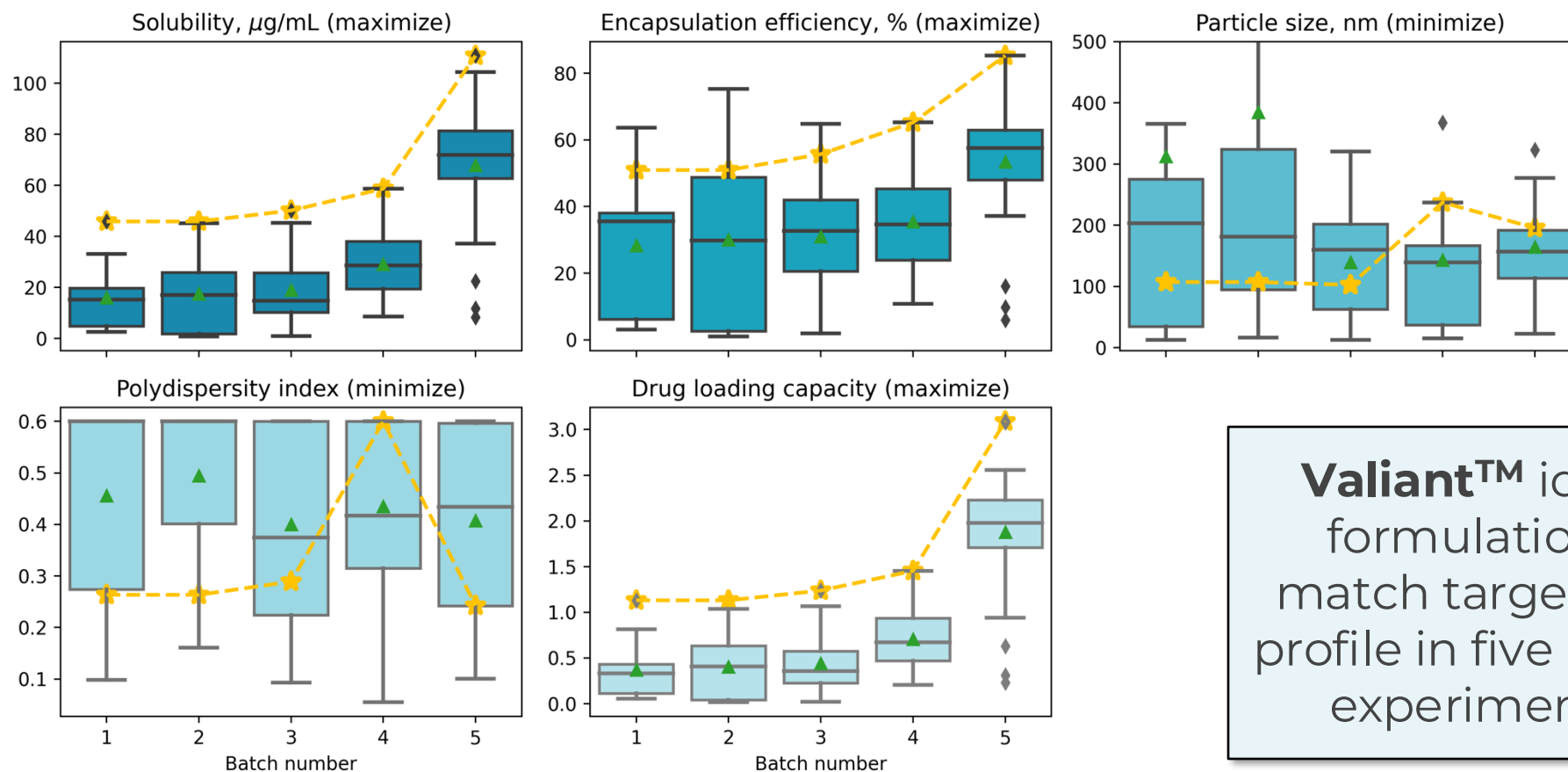
Valiant™ successfully identifies and characterizes a formulation that matches the target product profile.

CASE STUDY #2

Optimization of Complex Formulation

Valiant™ in Action

OBJECTIVE: Simultaneous multi-objective optimization to achieve target product profile.



Valiant™ identified formulations that match target product profile in five batches of experimentation.

* Yellow trace indicates properties associated with the *best* overall merit across five objectives.

CASE STUDY #3

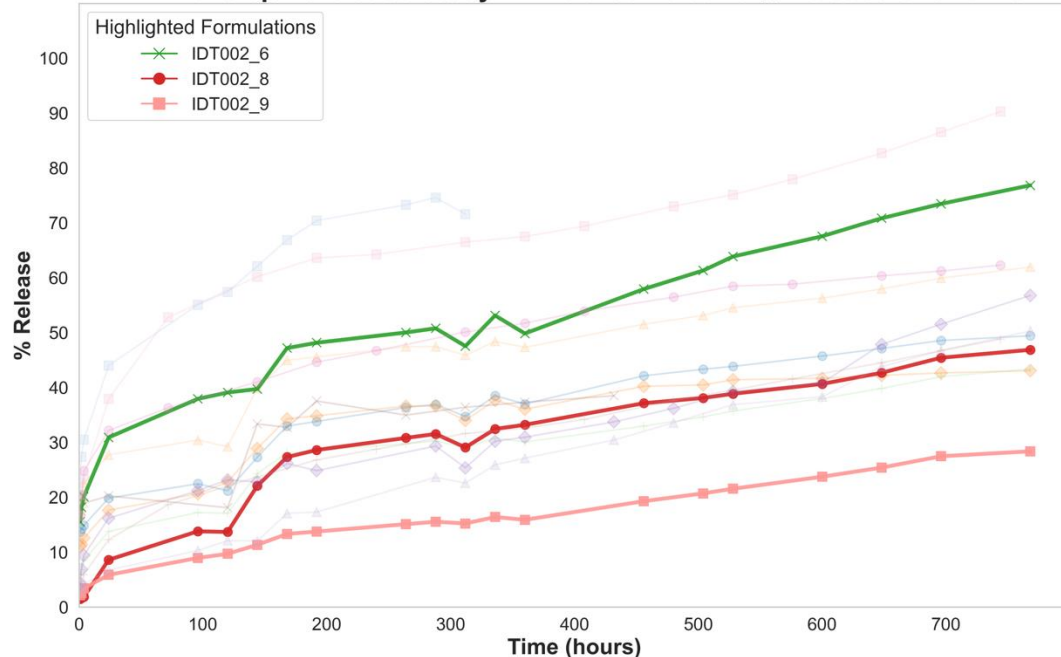
Long-Acting Injectable

Valiant™ in Action

Intrepid

OBJECTIVE: Optimize a long-acting injectable for sustained release and *in vivo* validation.

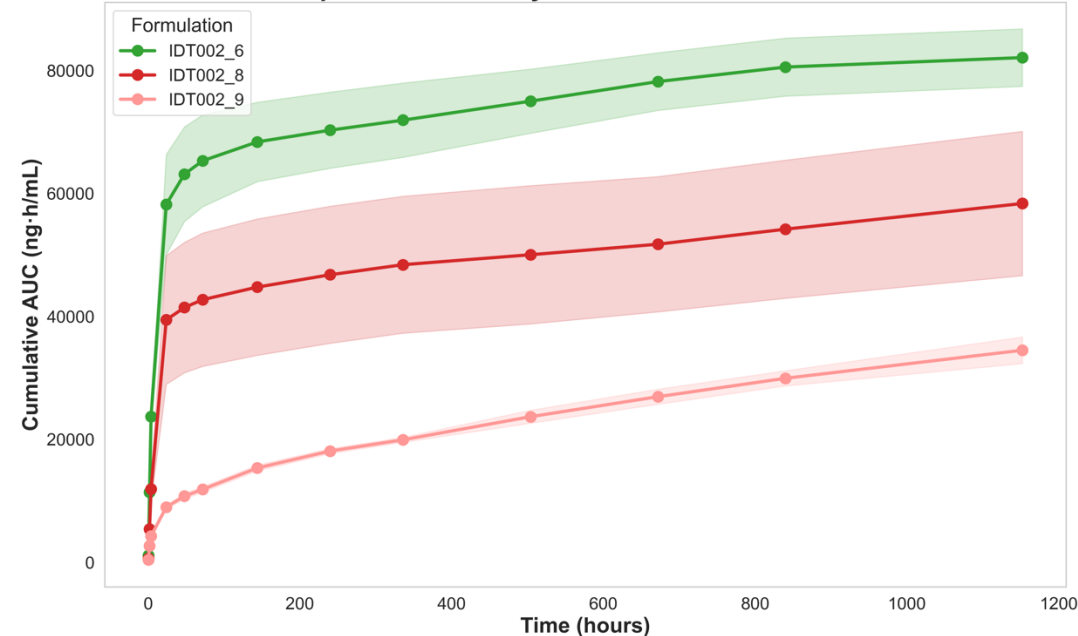
LAI Development Case Study: In vitro Cumulative % Release Over Time



1 In vitro optimization

Valiant™ explores the design space by planning and preparing iterative batches of formulations to identify lead candidates.

LAI Development Case Study: In vivo Cumulative AUC Over Time



2 In vivo characterization

Lead candidate formulations identified by Valiant™ are tested *in vivo* to validate *in vitro* performance.

Lead Candidates Validated in Animal Studies

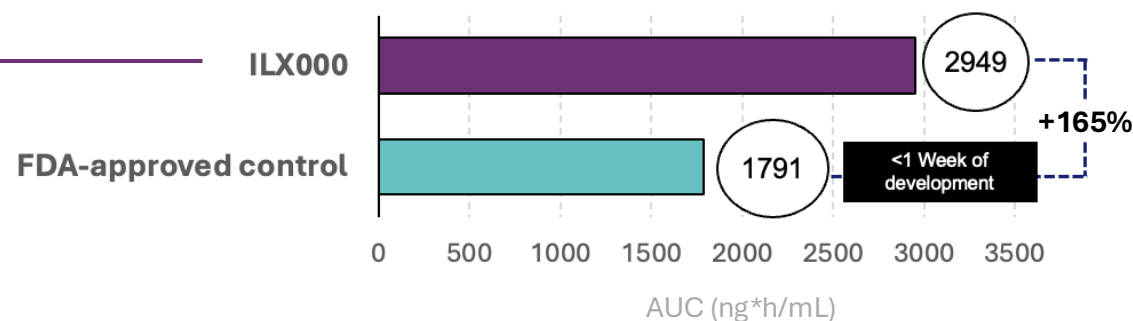
Improved Oral Bioavailability: Benchmarking against existing marketed products

Example #1

N-HANCE ILX000

Hydrophobic small molecule drug used to treat epilepsy.

N-HANCE ILX000 formulation is optimized to be free of ethanol and known allergens.

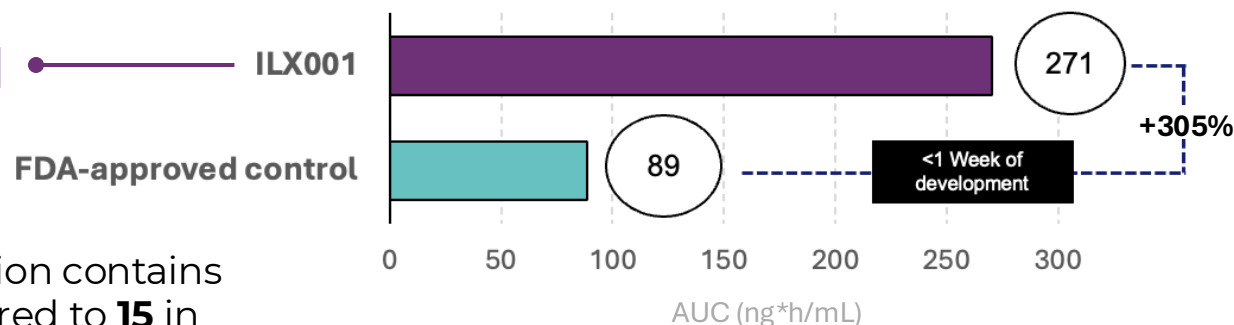


Example #2

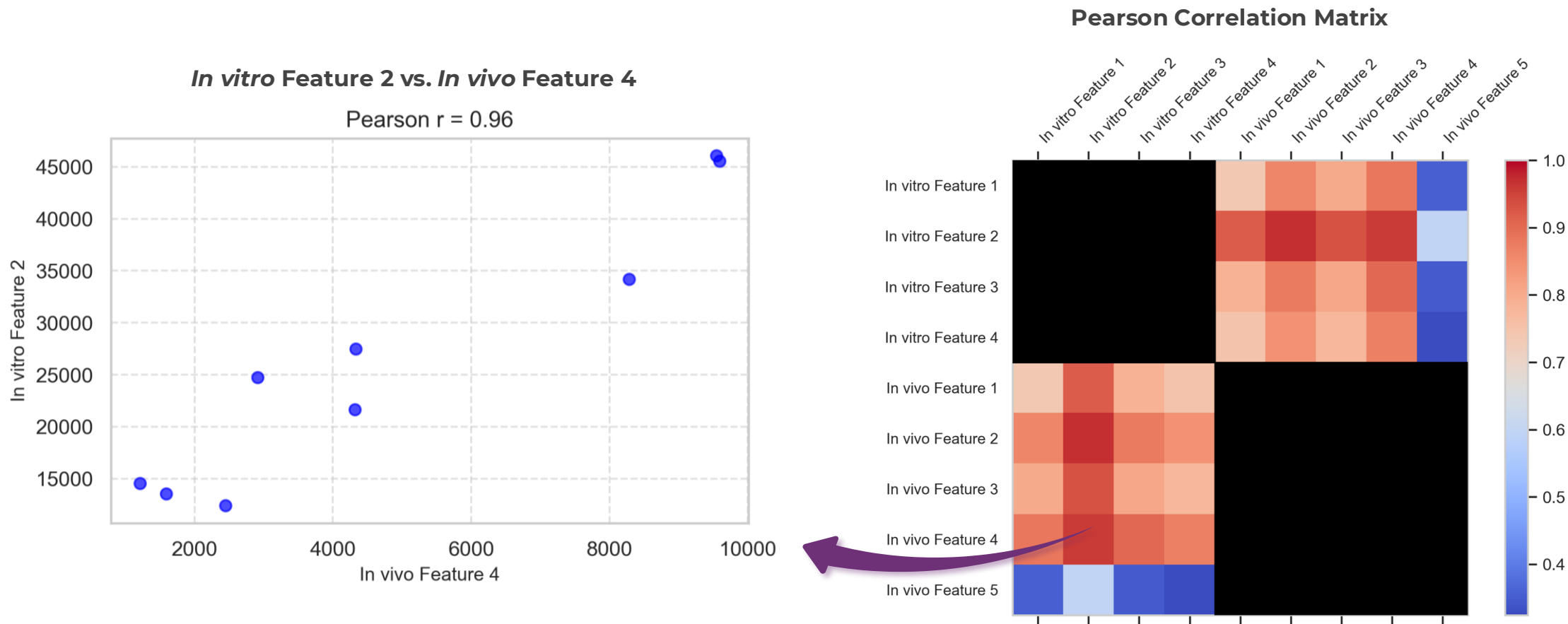
N-HANCE ILX001

Large hydrophobic chemotherapy drug

N-HANCE ILX001 formulation contains only **4** ingredients, compared to **15** in the FDA-approved control.



Integrating Complex *In vitro*–*In vivo* Insights to Drive Formulation Optimization



Business Model

Valiant™: An Intellectual Property Engine

1

Co-Development Partnerships

Partnerships with industry serve to validate the technology, establish relationships, and generate cashflow while simultaneously developing workflows and capabilities.



2

Delivery Technology Assets

Central to our business model is securing broad composition of matter patents on new drug delivery technologies.



Co-Development Partnerships

	Description	Status
Partner 1	U.S. small-cap biotech, private	Completed
Partner 2	E.U. top-20 big pharma, private	Signed, active
Partner 3	E.U. multinational; private	Completed
Partner 4	U.S. top-10 big pharma; public	Signed (2 projects), active
Partner 5	U.S. multinational; public	Signed, active
Partner 6	U.S. top-10 big pharma; public	Signed, active
Partner 7	AI-driven drug discovery; public	Signed, active
Partner 8	Asia top-25 big pharma; public	Signed, active
Prospect 1	E.U. multinational; public	Negotiations

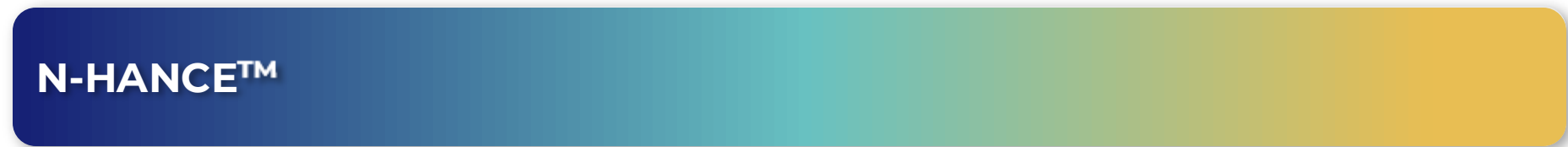
In just over one year of operations, we have proven the **value** of our technology as evidenced by **eight** signed commercial agreements, and a pipeline of prospects interested in working with us.

Proprietary Drug Delivery Technologies

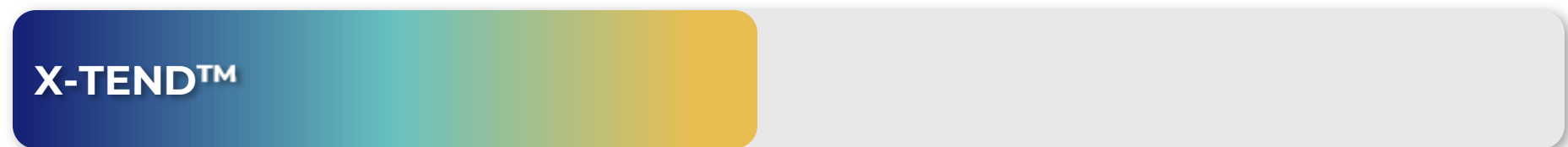
Goal



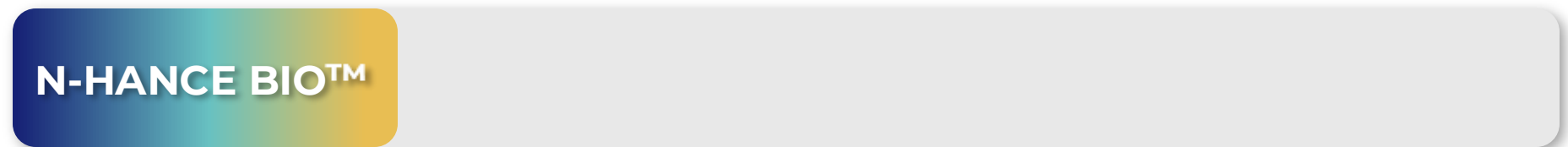
Enhances the solubility and oral bioavailability of hydrophobic small molecules.



Long-acting injectable that provides sustained release of small molecules and peptides.



Increases the stability and oral bioavailability of peptides.



The Intrepid Advantage

Valiant™ is a **Multi-Technology Development Engine** and represents a paradigm shift in the way drug delivery technology companies operate.



- **No third-party data usage.** All data is generated at Intrepid Labs and will become property of Partner.



- Advanced algorithmic mapping of the target drug product design space to develop **proprietary formulations**.



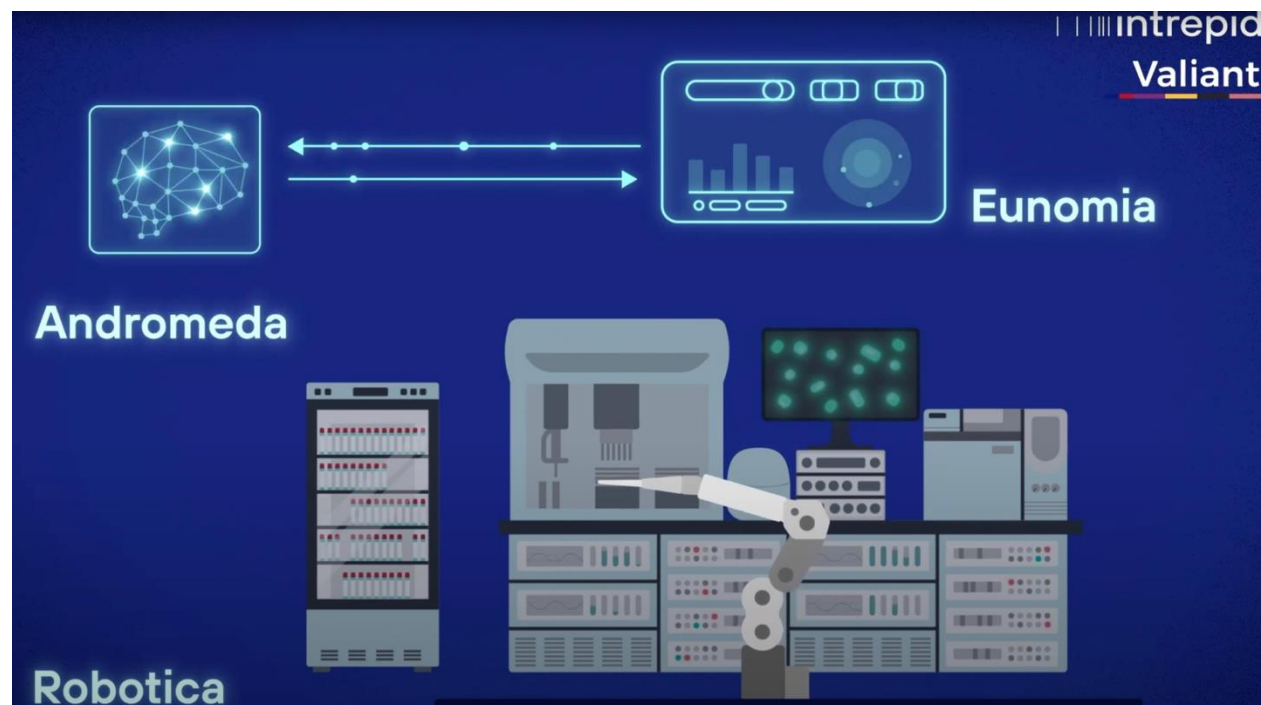
- Advanced **Active Machine Learning** technology achieves precise, multi-objective target product profiles rapidly.



- 40+ years of drug delivery expertise amongst senior leadership.



- A proven track-record of deploying AI and automation to tackle real world problems.



[WATCH INTREPID LABS
ANIMATION VIDEO HERE](#)

Our Team



Prof. Christine Allen
Co-founder & CEO

- 20+ years drug formulation development



Dr. Pauric Bannigan
Co-founder & CSO

- 10+ years drug formulation development



Dr. Riley Hickman
Co-founder & Director R&D

- 5+ years AI/ML and automation



Other Roles
at Intrepid Labs

- Lab Manager
- Lab Tech
- AI/ML Engineer
- Full Stack Developer
- Director of BD
- Fractional CFO



Prof. Alán Aspuru-Guzik
Co-founder

- 20+ years AI/ML and automation



Major Milestones to Date

A**Feb 2023**

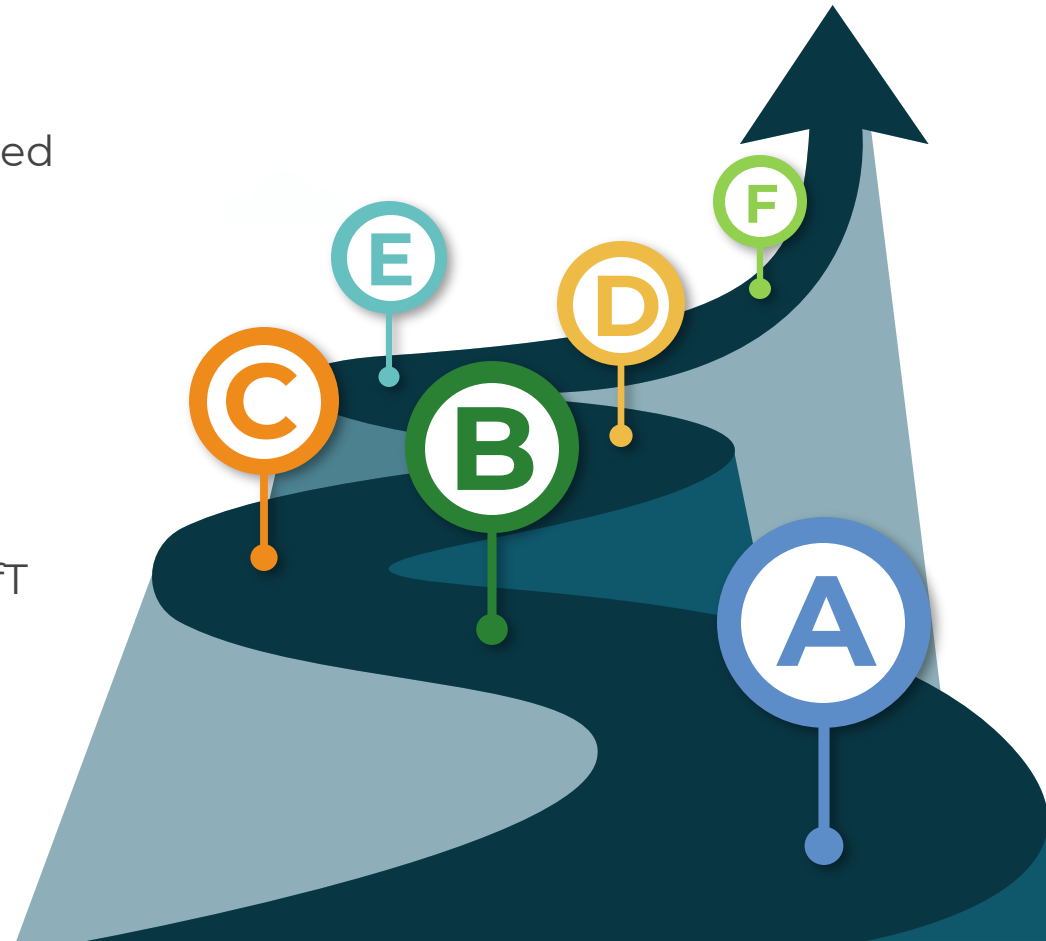
Company is conceptualized

B**Aug 2023**

\$4M in pre-seed venture capital secured and company spun out of UofT

C**Jan 2024**

AI-driven robotic lab is established at our HQ at JLABS Toronto

**D****Apr 2024**

First commercial partnership secured

E**Oct 2024**

First provisional delivery technology patent filed

F**Apr 2025**

Eight commercial partnerships secured to date



Better Medicines, Fast.

Christine Allen

Co-founder & CEO

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