

# **Intrepid Labs**

## **Category:**

Best Startup

## **Company Name:**

Intrepid Labs

## **Turnover and/or Funding:**

In its first full year of operations, Intrepid has closed nine co-development partnerships, significantly outperforming expectations and validating the market demand for our proprietary data autonomous research platform. These partnerships span a range of product types and therapeutic areas, underscoring the flexibility and broad applicability of our VALIANT self-driving formulation platform. This commercial traction has resulted in over \$1 million USD in revenue within the first 12 months, driven. The company's high-efficiency platform enables us to service multiple products per partner, creating durable, recurring value from each engagement.

To support this growth, Intrepid raised an \$7.4 million USD seed round from leading venture investors. This funding has enabled the expansion of our in-house automation infrastructure, the development of a second-generation AI-driven platform, and the onboarding of a world-class scientific and operational team. The company is now well-capitalized to execute on its near-term roadmap, including increased international partnerships.

## **Sub-Category:**

Biotechnology

## **Corporate history (creation, key milestones, main funding,...)Information on Condition / Disease and need for solution / product (prevalence, existing treatments / solutions):**

Intrepid was founded to solve one of the most persistent challenges in pharmaceutical science: the efficient design and development of drug delivery systems for difficult-to-formulate molecules. Born out of academic excellence at the University of Toronto, Intrepid leverages proprietary automation and artificial intelligence to revolutionize formulation development. The company was officially incorporated in 2024 by a world-class founding team with deep expertise in formulation science, AI, and automation.

The company raised a \$4 million USD pre-seed round to build its prototype platform and validate its technology across multiple drug delivery formats. This funding enabled the development of VALIANT, Intrepid's self-driving formulation lab, an integrated system that combines robotics and machine learning to develop pharmaceutical formulations in a fraction of the time and cost of traditional methods. Eighteen months later, Intrepid raised a \$7.4 million USD seed round led by leading venture investors. This second round funded expansion of the team, the filing of a composition of matter patent on novel delivery systems, and early commercial scaling.

Since incorporation, Intrepid has closed nine co-development partnerships with pharmaceutical companies across oral and long-acting injectable (LAI) delivery, and generated over \$1 million USD in revenue in its first year of operations. These partnerships validate both the versatility of the platform and the demand for rapid, data-driven formulation innovation in the pharmaceutical industry.

## **History of the development of the solution/product (Intellectual Property, preclinical and clinical datas, development collaborations):**

Intrepid was founded to solve one of the most pressing challenges in drug development: enabling oral and long-acting delivery of poorly soluble or poorly absorbed drugs. The company spun out of the University of Toronto, with all intellectual property fully assigned to Intrepid. The cornerstone of Intrepid's platform is VALIANT, a modular self-driving lab system that autonomously designs, executes, and learns from miniaturized formulation experiments. VALIANT comprises three proprietary subsystems: Eunomia (lab orchestration), Andromeda (AI experiment planner), and Robotica (device-level integration of lab hardware). Together, these components enable rapid exploration of complex formulation design spaces using minimal material and time, transforming the traditionally slow, empirical formulation process into a high-throughput, data-driven, closed-loop workflow. Intrepid is creating a defensible and scalable engine for next-generation drug delivery systems.

To date, Intrepid has signed nine co-development partnerships with biotech companies, CDMOs, and large pharmaceutical organizations. These projects span both oral and long-acting injectable drug delivery, with several collaborations already progressing toward in vivo studies.

## **Why this drug or device is innovative, the broad implications for future research, and/or how it will improve the human condition:**

Drug formulation remains one of the most empirical, time-consuming, and failure-prone steps in pharmaceutical development. Despite breakthroughs in drug discovery and biologics, 90% of small-molecule drugs still fail to reach the clinic due to poor solubility,

absorption, or bioavailability. The need for smarter, faster, and more effective delivery solutions is urgent, particularly in the context of chronic disease, global access, and patient adherence.

Intrepid is transforming formulation development by combining robotics, artificial intelligence, and miniaturized experimentation into a unified platform (VALIANT) capable of discovering advanced drug delivery systems with unprecedented speed and precision. Unlike conventional approaches that rely on slow, trial-and-error testing, VALIANT operates as a self-driving lab: it selects experiments, runs them autonomously, analyzes results, and refines its predictions in real time. This innovation fundamentally redefines what is possible in pharmaceutical formulation science.

Intrepid's innovation lies in the integration and deep coupling of three technological layers; (i) Fully autonomous control of robotic devices, pipetting systems, plate readers, and other lab hardware via Intrepid's custom orchestration system (Eunomia); (ii) The Andromeda engine intelligently plans experiments based on prior data, using active learning to explore formulation design spaces efficiently; (iii) Drug Delivery Science: Formulation workflows optimized for miniaturization, speed, and relevance to real-world dosage forms (oral tablets, LAIs, injectable depots, etc.). This system dramatically reduces both time and material requirements, a formulation campaign that would traditionally take 12-18 months can now be completed in 2-3 weeks, with 10-100x less API material, a critical advantage when working with expensive or scarce compounds.

By accelerating delivery innovation and removing formulation as a barrier, Intrepid is helping to expand the universe of treatable conditions and make medicines more effective and equitable for patients worldwide.

**Please provide appropriate references (PubMed, Abstract, Website):**

[www.intrepidlabs.tech/](http://www.intrepidlabs.tech/)

**References File Document upload:**

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