PRECISION DISCOVERY SYSTEMS

Verified Execution for Autonomous Biology

The nanoliter execution layer for discovery workflows.

Company Snapshot

FOUNDED & LOCATION	Founded 2026 • SF Bay Area, CA
FUNDING STATUS	Founder-funded ~$1M to retire core technical risk.
KEY MILESTONE	Repeatable 1 nL transfers demonstrated in internal prototype.
TARGET MARKET	Drug discovery as beachhead. Expansion into combinatorial workflows.
CURRENT RAISE	**Seed round to reach public alpha (SLAS 2027).**

Why Liquid Handling Matters

From finding active compounds to setting dose, drug discovery depends on liquid handling.

SCREENING

Find What Works

Millions of compounds are evaluated through repeated liquid transfers.

DOSE RESPONSE

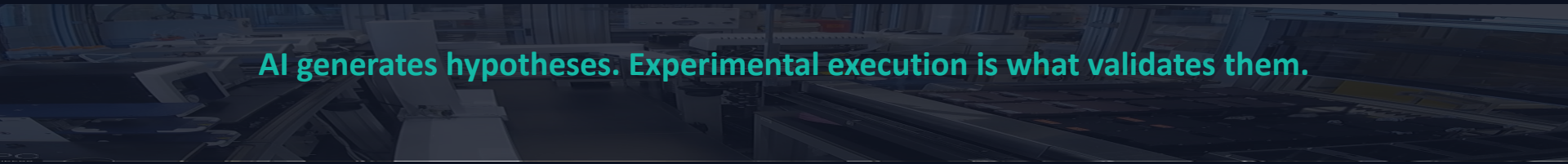
How Much to Use

Biological response depends on delivering the right amount.

MINIATURIZATION

How to Scale

Smaller volumes reduce cost and increase experimental throughput.



AI generates hypotheses. Experimental execution is what validates them.

Silent Failures Break Autonomy

Silent failures break the design-test-learn cycle.

THROUGHPUT SCALES

- AI increases experiment generation.
- Automation executes at high speed.
- Workflows can involve millions of transfers.

ASSUMED SUCCESS DOES NOT SCALE

- Transfers are assumed, not verified.
- Success is inferred downstream.
- Silent failures surface late, if at all.
- Unattended workflows amplify these failures.

Experiments can be internally consistent and physically wrong.

From Assumed to Verified

Silent transfer failures scale poorly in unattended nanoliter workflows.

The system knows, in real time, whether a 1 nL transfer actually occurred.

Not inferred downstream. Observed at execution.

Enables reliable, closed loop experimentation.

Verified Execution Creates Control

Catch transfer failures before they corrupt data and derail experiments.

Real-time verification catches transfer failure before it becomes bad data, wasted sample, or a failed run.

VERIFY

Did the commanded transfer physically occur?

DECIDE

Continue, retry, flag, or stop based on the result.

ACT

Prevent error propagation through the workflow.

Catch failures at **execution**, not downstream.

Architecture Constrained Adoption

High cost, large footprint, and blind execution confined adoption to centralized expert labs.

1

TODAY

~1,000 Systems Installed

~$600k avg system price.
Used primarily in large pharma and top CROs.

2

WHY IT STAYED NARROW

Confined to expert labs

High cost requires large budgets.
Large footprint adds facility burden.
Blind execution limits unattended use.

3

WHAT CHANGES NOW

Broader deployment

$300-350k target price.
Smaller system, easier to deploy.
Mid-size biotech and tech-forward labs can now deploy.

Drug discovery is the beachhead. Better architecture makes broader deployment practical.

Traction & De-Risking

We don't knock on doors. We're already inside.

~40%

of the global Echo install base

serviced by co-founder's team

Warm Entry	Trusted relationships with lab teams who control budgets.
Real Feedback Loop	Direct access to pain points, failure modes, and workarounds.
Controlled Deployments	Early pilots without speculative outbound sales.

~$1M founders' capital committed

Verified 1 nL execution demonstrated. Transducer sourced. Open loop control software built.

INDUSTRY ENDORSEMENT

Endorsement from pharma, academic screening and CRO organizations, including Incyte, FIMM (University of Helsinki), and BioAscent Discovery.

Path To Paid Evaluations

SLAS 2027 is the launch point for early paid evaluations.

NOW TO SLAS

Build the Alpha System

Build the alpha system for public reveal at SLAS 2027.

Refine design-partner workflows with early adopters.

→

AT SLAS 2027

Convert Interest into Evaluations

Convert targeted meetings and launch interest into qualified evaluations.

Screen for workflow fit, urgency and deployment readiness.

→

AFTER SLAS

Run Paid Evaluations

Execute paid workflow evaluations with selected labs.

Deploy through Lab Machines installation and field support.

Lab Machines accelerates deployment through trusted installation, service and field support.

The Team

Experience that forged the architecture.

FOUNDER

Arne Vandenbroucke

The Builder

Led automation and engineering teams deploying ADE systems in production discovery environments. Experienced blind execution and brittle software firsthand, including at insitro and Synthego.

Architecture shaped by operational reality.

CO-FOUNDER

Brandon Barry

The Fixer

Founder of Lab Machines, which services and supports ADE instruments in the field. Brings trusted field presence, continuous exposure to failure modes, and a direct path to early evaluations and deployment.

Tight feedback loop into design decisions.

We are not entering the category. We operated it.

Business Model

Primary revenue from hardware. Recurring upside from service, consumables, and software.

HARDWARE

$300–350k ASP

70%+ gross margin

The primary revenue engine at seed stage.

SERVICE

Annual contracts at ~15% ACV.

Service capability from Day 1 via Lab Machines.

CONSUMABLES

Qualified plates and workflow components.

Consumables modeled to contribute at least 10-15% recurring revenue.

SOFTWARE UPSIDE

Run control and transfer verification layer.

Recurring value grows with the installed base.

Verified execution supports premium pricing.
Service, consumables and software add recurring revenue over time.

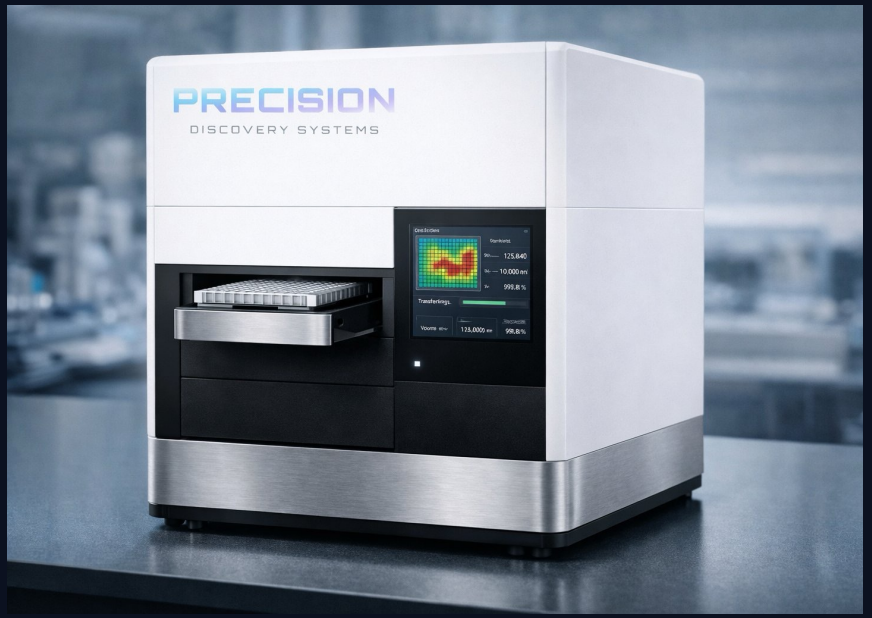
PRECISION DISCOVERY SYSTEMS

The Precision

Verified nanoliter execution.
Built for autonomous discovery.

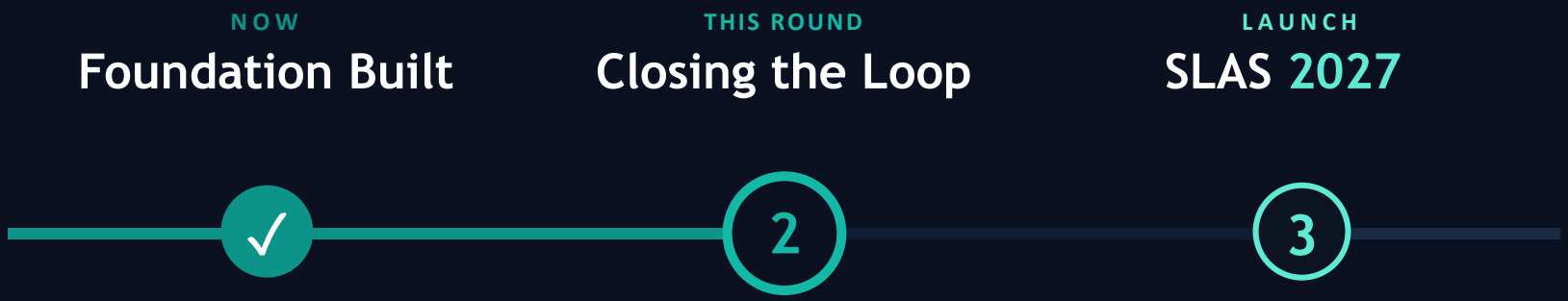
PUBLIC REVEAL — SLAS 2027, San Diego, CA

- ✓ Repeatable transfers demonstrated.
- ✓ Stable open-loop control validated.
- ○ Mechanical packaging in progress.
- ○ Next-gen drive electronics in development.



The Sprint to SLAS 2027

Society of Lab Automation Annual Conference • January 30 – February 3, 2027 • San Diego, CA



Raising a $2M seed to reach public alpha at SLAS 2027 and customer-funded evaluations.

Investment Thesis

Verified execution changes the role of liquid handling in autonomous biology.

1. **EXECUTION PRESSURE IS RISING**
   AI is generating experiments faster than labs can execute reliably.
2. **THE DESIGN GAP**
   At nanoliter scale, transfer success is assumed and at best inferred downstream.
3. **VERIFICATION CREATES CONTROL**
   Real-time verification turns liquid handling into an execution control point.
4. **THE UNLOCK**
   Verified execution makes unattended workflows more reliable and reproducible.
5. **WHY THIS TEAM**
   Founders combine operator scars, technical depth, and direct access to the installed base.

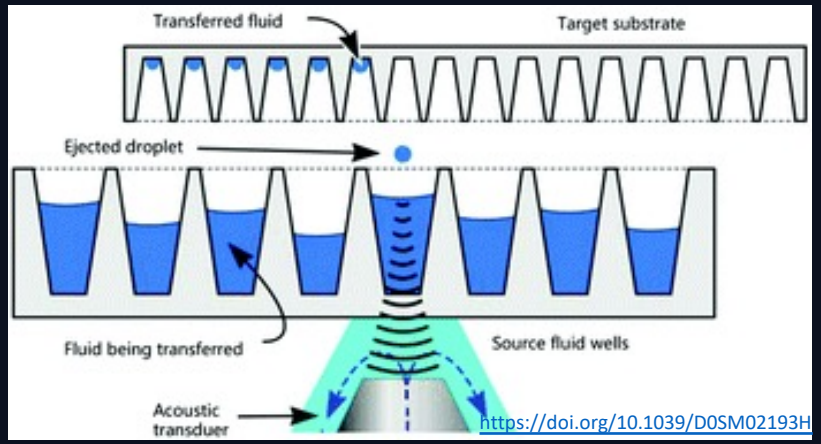
Verified execution is the winning architecture for autonomous biology.

Appendix

Supporting detail

How Acoustic Droplet Ejection (ADE) Works

Focused acoustic energy transfers precise volumes without physical contact



KEY ADVANTAGES

Tipless Transfer
Sound waves eject droplets without tips

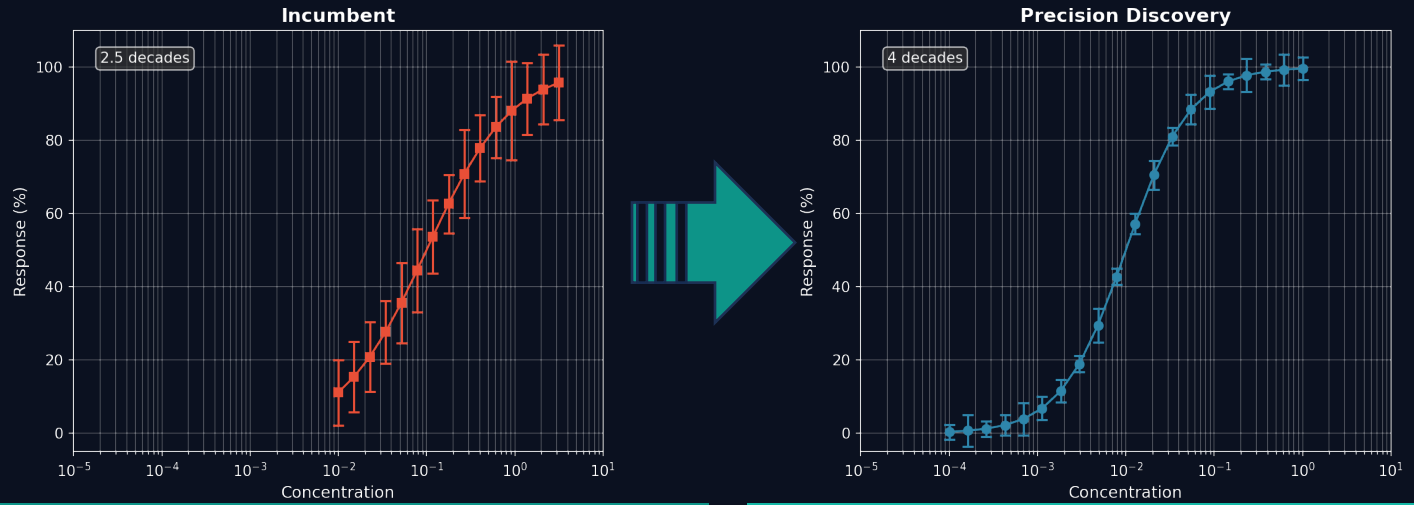
Nanoliter Precision
Enables massive miniaturization and reagent savings

Zero Contamination
No physical contact between source and destination

Combinatorial complexity at minimal reagent costs is where ADE excels

One System. Full Experimental Range.

Higher resolution at the low end improves decision quality and reduces false negatives.



THE STEEP PART OF THE CURVE

Truth at 1 nL enables trust across the entire range. Resolution exactly where biology is most sensitive.

FOUR-DECADE VOLUME SPAN

1 to 10,000 nL in one system. Eliminates multi-instrument workflows.

What Operators Experience Today

Independent organizations across CRO, national infrastructure and global pharma report the same failure modes.

CRO

United Kingdom

Blind Execution

"The lingering uncertainty of 'did it actually dispense?' remains. We often must resort to manual fluorescein validation. A system that provides greater transparency and certainty regarding transfer success is long overdue."

National HT Core

European Union

Downstream-Only Validation

"Current systems report a successful transfer even when no drop is dispensed. We are forced to rely on downstream signal changes to detect issues. A system with active, real-time drop verification is my highest priority."

Global Pharma

United States

Lack of clean integration

"Today's platforms are reliable, yet limited. They lack real-time verification and do not integrate cleanly into modern automated ecosystems. These limitations create operational risk and inefficiencies that scale poorly."

Why Blind Execution Persists at Scale

Incumbent systems fail because they were designed around assumptions that are no longer acceptable

CORE ASSUMPTION

Command = Success

1. Transfers logged as successful regardless of physical outcome
2. No event-level verification at point of execution
3. Errors only discovered downstream — days or weeks later
4. Unattended operation amplifies silent failures exponentially

At nanoliter scale and high throughput, systems can be internally consistent while being physically wrong.

Biology Has Hard Sample Limits

Biological material is often fixed and non-renewable. Every microliter consumed removes future experimental optionality.

When sample is scarce, scientists adapt by limiting replicates and narrowing parameter sweeps.

Sample scarcity does not just constrain experiments. It quietly constrains scientific ambition.

Hardware Execution Status

Objective: Advance from prototype to alpha instrument for external validation

WHAT EXISTS TODAY

Prototype / R&D Stage

- ✓ Integrated bench prototype combining actuation, sensing and control software
- ✓ Repeatable nanoliter-scale ejection demonstrated
- ✓ Pre-ejection fluid sensing & characterization
- ✓ Stable open-loop control
- ✓ Moving stages implemented
- ✓ Next-gen drive electronics designed

IN DEVELOPMENT

Funding Needed

- → Event-level sensing at point of ejection
- → Closed-loop dispense gating & correction
- → Mechanical integration into unified instrument
- → Manufacturability & serviceability considerations
- → Packaging as external alpha instrument

Freedom to Operate

Foundational acoustics are established. Innovation shifts to execution control.

FTO reviewed with counsel across major jurisdictions. No blocking patents.

IP lives in control, observability, and validation, not foundational physics.

REAL-TIME VERIFICATION	Transfer validated at point of execution	PROPRIETARY
INTEGRATED CONTROL	Acoustic drive and sensing unified as one control problem	
FOUNDATIONAL PHYSICS	Public domain • FTO cleared with counsel	ESTABLISHED

Competitive Reality

Incumbent architectures are optimized for a different operating environment.

Blind-First Architecture

Built to assume execution, not verify it. Retrofitting truth breaks service models and qualification.

Installed-Base Inertia

Legacy platforms optimized for existing customers, not next-generation workflows.

Facility-Dependent by Design

Deployment requires facility-level planning, infrastructure, and space allocation.

Architectural inertia, not a staffing problem. These choices cascade into footprint, cost, and usability.

Biology is the Beachhead. Execution is the Platform.

1

NOW

Drug Discovery

Core technical risks retired.
Small molecule HTS.
Dose-response. Miniaturization.

2

NEAR

Biology Expanding

LNP formulation.
Genomics. CRISPR delivery.
Biologics research.

3

HORIZON

Beyond Biology

Petrochemical HTE.
Materials science research.
Industrial combinatorial chemistry.

Every domain runs combinatorial experiments.

Why Leasing Works Here

Leasing is operationally feasible for us, yet structurally difficult for incumbents

OPERATIONAL REALITY

- Instruments already circulate through secondary markets
- Refurbishment and redeployment are proven workflows
- Service access provides visibility into asset condition

FOUNDER ADVANTAGE

- Direct experience refurbishing, redeploying, reselling systems
- Deep familiarity with real failure modes
- Trusted service relationships in target market

WHY INCUMBENTS AVOID LEASING

- Service orgs optimized for uptime, not reuse
- Accounting and operational structures discourage refurbishing
- Installed-base stability prioritized over flexible access

Leasing is viable because asset lifecycle control already exists