



PROTODYNAMICS · INVESTOR DECK

The control layer for advanced materials manufacturing

At the atomic level, every element has a lowest-energy resting state. ProtoDynamics starts there. We identify the target state first, then build the manufacturing path toward it.

The company that controls that formation target controls what advanced manufacturing can make next.

GATE-REPAIRED VC DRAFT

LABFORGE LIVE

STAGE · PRE-VALIDATION

CORY GRAVES · PROTODYNAMICS · LABFORGE · NON-CONFIDENTIAL

Materials fail before products fail

The hardest problems in batteries, semiconductors, magnets, coatings, aerospace systems, and defense electronics begin inside the material.

INSIDE THE MATERIAL

Heat stops moving cleanly. Charge scatters. Stress concentrates. Pressure releases the wrong way. Chemistry attacks the structure.

WHY THE PRODUCT DIES

The product fails because the material never formed in the state the job required.

The endpoint comes first

The standard path starts with a recipe, runs the machine, measures the sample, and repeats until the result looks usable.

ProtoDynamics reverses that path. The platform starts with the physical endpoint the product requires, then defines the proof path before fabrication begins.

- Define the failure mode
- Identify the target state
- Build the smallest physical proof
- Measure it independently
- Advance, license, or kill the route

Materials R&D still discovers the target after fabrication

The current loop models the material, runs the machine, measures the sample, adjusts the recipe, and repeats.

That makes the search more sophisticated, but it does not close the search. Each new material system can reopen the loop because the target state was not fixed before the run.

OLD LOOP

Discover after the run

Recipe, machine, measurement, adjustment, repeat.

BLIND SPOT

The target moves

Change the material system and the model often has to be re-tuned.

PROTODYNAMICS SHIFT

Anchor before the run

Define the target state first, then build the smallest physical proof.

INVESTOR POINT

Fabrication becomes the proof step, not the discovery engine.

This turns materials development into staged validation with clear advance, license, or kill decisions.

The periodic table is the starting layer

ProtoDynamics has executable element-level coverage across all 118 elements.

Elements are the foundation. Compounds, alloys, coatings, and device materials still require composition-specific validation, which is why the first platform proof starts with a narrow coupon and a transfer test.

INVESTOR POINT

The target exists before fabrication. The machine run is no longer a blind search.

Diligence includes one public-reference calibration card: predicted target against published reference data, with the derivation withheld.

THE FIRST COMMERCIAL PRODUCT

Battery safety creates the first licensing wedge

Lithium battery fires become catastrophic when one failed cell drives neighboring cells into failure.

This is the same endpoint-first workflow applied to a narrow commercial wedge: define the target state first, build the smallest physical proof, then license the implementation into manufacturing that already exists.

TARGET STATE

Cell-of-origin containment

The event should remain inside the cell where it starts, instead of propagating through the pack.

SMALLEST PROOF

Independent propagation test

ProtoDynamics does not need to build a battery factory. It needs the physical evidence package.

LICENSING WEDGE

Existing manufacturing path

Manufacturers keep their chemistry and factories. ProtoDynamics supplies the IP implementation if the proof closes.

IP POSTURE

Battery-safety provisional asset: filed in May 2026. Full docket details stay in diligence.

WHY THIS FIRST

Urgent, narrow, testable, and directly tied to insurer, certification, regulator, and manufacturer incentives.

The first outside reviewers define the market gate

FOUNDER

Cory Graves leads ProtoDynamics and owns the IP, product architecture, and software surface.

IP POSTURE

Provisionals are inventor-held; non-provisionals will be filed with ProtoDynamics as applicant.

OUTSIDE REVIEW

A senior insurance and loss-prevention reviewer is reviewing the battery-safety path under NDA — at the intersection of safety evidence, property-loss prevention, certification pressure, and manufacturer adoption.

FINANCING ADDS

Independent battery-abuse testing, patent prosecution support, and certification-pathway review.

The company does not need the market to accept a theory. It needs the right outside evidence package in front of the people who price and govern risk.

One validated safety improvement can travel across cell formats

When independent testing confirms cell-of-origin containment, ProtoDynamics can move toward a **per-cell licensing model**.

MANUFACTURER KEEPS

Chemistry, factory, and product roadmap.

PROTODYNAMICS SUPPLIES

When accepted, the implementation becomes a per-cell license across formats — plus the IP position around the geometry and material-science mitigation.

First revenue path: license the safety wedge, use the evidence to enter the battery ecosystem, and let insurers, certification bodies, regulators, and manufacturers pull the standard forward.

The wedge and the platform come from the same process

The battery architecture came from the same endpoint-first workflow behind the materials platform.

The workflow reduced the battery problem to its physical failure boundary: cell-level pressure, heat, and energy-release containment. The safety architecture inherits that boundary as its design target.

The object can be a magnet, a battery interface, a ceramic coating, or a microtearing instability in a stellarator. The workflow does not change: derive the governing constraints, output the target, then verify closure.

LABFORGE

Define the target state

Endpoint first. Executable formation map.

DEPOSITION PATH

Translate onto tools

Controlled path on existing thin-film equipment.

METROLOGY

Confirm independently

Independent measurement of the material result.

Deposition-method provisional asset: filed in April 2026. Older platform filings and prosecution timing stay in diligence.

The first tranche buys battery proof

THE ASK

\$500,000 · nine months · battery-safety proof chain

Platform proof is round-two scope. This tranche reserves equipment access, defines the first coupon plan, and prevents the platform from being rushed before the battery wedge creates leverage.

LAB + PROTOCOL Independent lab scope and test protocol	TEST ARTICLES Cell-level propagation articles	OUTSIDE RESULTS First independent propagation results
REVIEW PACKAGE Insurance and certification review	LICENSE PACK Manufacturer-ready licensing package	PROSECUTION Patent planning on the active docket

OCT 2026 Lab scope, protocol, and prosecution plan	JAN 2027 First independent propagation results
MAR 2027 Insurance and certification review package	JUN 2027 Manufacturer-ready licensing package

Assuming a September 2026 start. When propagation containment validates, the company enters conversations with insurers, certification bodies, regulators, and manufacturers from a different position.

A negative result still has value because it identifies the layer that failed before scale capital is committed and would allow us to derive any adjustments to the target.

The proof can turn into revenue on every accepted cell

The first tranche does not buy inventory. It buys the evidence gate that can turn a safety result into a per-cell licensing model.

REVENUE MODEL

Annual license revenue = eligible cells × adoption rate × royalty per cell

The royalty is set in manufacturer licensing. The deck does not need to claim a market-size number before proof; it needs to show how the evidence converts into unit economics.

WHY IT SCALES

One proof, many units

Independent propagation evidence can attach to every accepted cell format covered by the license.

WHY OEMS CARE

Risk has a price

If containment reduces property-loss, certification, recall, or insurance exposure, the license has a direct economic buyer.

WHY INVESTORS CARE

Capital-light wedge

ProtoDynamics can monetize through IP and implementation rights without owning battery factories.

Diligence can model scenarios by changing only adoption rate and royalty per cell. The public deck should show the equation; detailed pricing belongs in investor diligence.

The price changes after proof

Today: live software surface, element-level formation map, battery-safety product, founder-held IP portfolio moving into the company, and an outside review path under NDA.

The next value step is outside evidence. When the battery-safety test closes, ProtoDynamics enters a licensing conversation with manufacturers through the insurance, certification, and regulatory lens.

When the evidence closes in the next round, ProtoDynamics moves from a battery-safety company to the control layer for first-principles material-state control — and the market for what that control can make.

THE INVESTOR MOMENT

Enter before the proof events land. Fund the evidence chain. Build the control layer for first-principles material-state control in manufacturing — and control the market for what it can make.

DILIGENCE BOUNDARY

Discloses thesis, product sequence, public proof plan, filing posture, and commercial logic. Withholds protected implementation details. Diligence package: public-reference calibration card, private filing register, lab quotes, test protocols, validation budget, and counsel-confirmed IP status.