

BEYOND HUMAN STUDIO, INC.

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We are building the reinforcement learning environment for human biology, utilizing a cash-flow inverted infrastructure model where the subjects pay us to be monitored, to generate the world's first causal, population-scale multi-omic dataset.

The Thesis: Data-Inverted Drug Discovery

Every bio-AI foundation model lab and preventative pharma program is fundamentally bottlenecked by high-quality human training data. They require **causal** (what explains why it happened), **longitudinal** (*over a long time*), **multi-omic** (*five paired biological layers on the same person: whole genome, blood molecular, urine molecular, continuous physiological, behavioral*) **datasets** to understand *why* biological systems change, not just *what* happened. Existing datasets (e.g., UK Biobank, Verily Baseline, 23andme) capture static, observational correlations because they lack environmental control, yet they are the best pharma can buy: 23andMe/GSK signed **\$300M over four years on static genetics alone**. Verily/Pfizer and Verily/Novartis comped at \$5–25M per partner per year for blood + wearable data.

Generating true causal data at scale requires multi-year monitoring under strict environmental interventions. In traditional clinical trials, this architecture costs an unsustainable **\$30,000 per subject-year** because companies must pay the participants. **We invert this.**

Our subjects pay us \$800/month to live inside our research environment, producing the most valuable biological corpus at zero net data-acquisition cost.

What we built

A 2m × 1.2m × 1m instrumented sleeping capsule that functions as a high-fidelity metabolic and environmental laboratory. Subjects pay us \$800/month to live in the facility. Located in one of SF's best neighborhoods, very safe, 10 minutes walking from the beach and from top incubators, our facility is a 1910 Victorian house remodeled to host 96 capsules, full coworking floor, gym and recovery floor with sauna and state of the art equipments such as hyperbar machine, a garden and creative room. By living in our facility, subjects have access to a curated event calendar, networking platform, monthly bloodwork, WGS at intake, a wearable device and an analog to eight sleep smart mattress inside their capsules.

While they sleep, the capsule acts as a closed-loop system, dynamically adjusting temperature, light, and CO2 against the resident's continuous biometric responses, improving their sleep quality. And by doing so, every micro-adjustment is a controlled experiment; every response is a labeled outcome. In addition, the capsule measures passive indirect calorimetry, the key data point for peptides and metabolic drugs development, and that traditionally requires a \$200,000 standalone metabolic chamber and 72-hour clinical isolation.

Over all, we capture five paired biological layers on the same individual over years: whole-genome sequencing at intake via a saliva test, monthly blood panels, daily passive smart-toilet urinalysis, continuous wearable physiology, and environmental/behavioral tracking. **All data is automatically audited and mapped directly to OHDSI/OMOP standards from day one** to eliminate data noise and ensure instant algorithmic compatibility.

Our Capsule renders, ready to manufacture and our Bill of Materials (BOM) is \$680 / landed \$1,280 (incl. tariffs).



San Francisco is home to over **60,000 founders and aspiring entrepreneurs**, but has a severe housing crisis, making affordable living nearly impossible. Builders are still stuck choosing between a **\$850/month hostel bed in a shared room with 17 others located in the most unsafe area of SF** (which has so much demand that they are expanding to open 400 beds in 2027- waiting list full), or **\$1,500/month for a small shared room** with three other people.

In a market this broken, an **\$800/month private capsule is a total game-changer**, offering a secure and tech driven private sleeping space with luxury shared facilities and health focused amenities.

The SF founder cohort is not a selection bias, it is an accelerated stress-test population. High-cortisol, high-sleep-debt, high-cognitive-load, voluntarily instrumented. A 15% shift in deep-sleep architecture from a thermal protocol that takes 6 months to detect in healthy retirees surfaces in 30 days here. **Phase 2 extends into pre-diabetic and metabolic-syndrome cohorts**, the exact population GLP-1 successors and early-Alzheimer's programs are trying to baseline. That's where partnerships for our phase 2 dataset cross \$50–150M each.

How we scale to +500k subject nights/year by Y3

We operate the SF flagship (96 subjects) to set up a baseline for our protocols. After that, we license the Beyond Human OS, and provide for free the capsules, wearables and app to existing residential operators. They keep 75% of capsule rent. **We take 25% and all the data.**

Operator math: A standard \$2,000/month room retrofitted with 8 capsules at \$800/month each yields \$6,400 in gross revenue. Post-25% licensing fee, the partner clears \$4,800—a 2.4× net lift over the rental baseline with zero upfront investment or additional overhead. This is attractive for operators because:

- **Zero-Risk Integration.** Domestic fabrication hits \$15k per capsule. Sourcing them from China independently is a supply chain nightmare. We cover and handle everything. There is no risk nor investment needed for operators.
- **The Regulatory Wall.** Zoning friction is complicated for operators. We navigate this via CA SB79 and AB507, legally converting residential inventory into high-yield group housing in under 90 days. (See data room for details)

Our math: No leasehold beyond the flagship, zero real-estate risk, and zero daily operational friction. Operators handle leases, kitchens, community, daily ops. We collect the data. With a \$1,280 landed cost per unit, our **hardware payback is achieved in under six months.**

We launch with 96 subjects in **Year 1 = 34,560 paired (intervention, response) subject-nights.** Scale to 750 subjects in Year 2 = 270,000. Then 1500 subjects in Year 3 = 547,000. At franchise scale: millions.

The moat

- **Cash Flow Inversion:** While competitors like Recursion, Tempus, and Verily spend millions to acquire and observe episodic or non-controlled data, **we generate net positive cash flow from day one. This allows us to scale faster.**
- **Causal architecture.** Observational data is commoditizing. Closed-loop environmental control is the only known method to produce causal inference at population scale outside of clinical trials. We designed our system to achieve this. **The May 2026 provisional patent is hardware-agnostic; PCT planned within priority year.**
- **Speed.** In ten weeks on under \$2,000, solo, I designed and prototyped the closed-loop capsule with passive indirect calorimetry, went to china, set up the supply chain, manufacturing and shipping, and designed the wearable. **All the hardware is ready to manufacture today and patent pending.** This takes other companies' pre-seed and 12-18 months hardware cycles with full engineering teams.

Status - Incorporated mid-March 2026. Ten weeks old at the time of this memo.

- **IP:** Provisional patent on fleet-level dataset architecture and closed-loop environmental control filing May 2026 (USPTO). PCT within priority year.
- **Hardware ready:** Wearable BOM \$14.20. Capsule BOM \$680. Landed cost \$1,280 including tariffs and install. 35-day lead time. Hardware payback in month 1.5 of occupancy flagship (6 months franchise). Supply chain secured with Chinese manufacturers I have already worked with for the capsules, and with the ODM that manufactures Decathlon's smart watches for the wearable.
- **Pharma engagement underway:** Internal champion inside GSK's Human Biological Samples Management organization. Substantive conversations on the cohort details and requirements. This is a champion relationship; conversion to paid pharma research partnership scoped for months 6-9 from the operation start of the first cohort (months 10-13).
- **SF-based Residential Human Lab is scouted and ready to operate in 4 months post raising:** Building identified with existing group housing permit, regulatory landscape mapped, and contractors ready to deploy.

Founder

Solo. 3x founder; TUM; Started Uni at 13, became Prof at 22; Patent-pending inventor (medical nanotechnology & Electromyography wearables); Published author in Biomechanics; Winner of Elon Musk's Not-a-Boring Competition (built a 23-ton Tunnel Boring Machine); developed prior wearables and manufacturing contracts in China (AthleteIQ, VC-backed), scaled residential operations platform to 2,050 units (SuperAdmin AI, built & sold <90 days), has supervised construction sites with 40+ workers, handled suppliers, permits and architectural plans, and was a pro-athlete (Top 5 Windsurfer in North America, Top 50 World). Member of South Park Commons and Sigma Squared, alumna of Entrepreneur First, Founders Inc, and The Residency; guest lecturer at Berkeley, Imperial, and Google.