

Hidden Motif Scientific



The Next Generation of Continuous Health Monitoring

Molecular Infrastructure for AI-native Healthcare:
Making Longitudinal Biology Visible, Measurable, and Actionable at Scale

Wearables made physiology continuous.
Hidden Motif makes biology continuous.

Problem

Disease progression, treatment response, and recovery occur continuously. Yet the underlying biology remains largely invisible between measurements.

Today's wearables increasingly enable continuous monitoring of physiology –

but biology is still measured as occasional snapshots.

As a result, treatment optimization, patient stratification, clinical research, and next-generation AI models are fundamentally constrained by **the absence of scalable longitudinal biological data.**

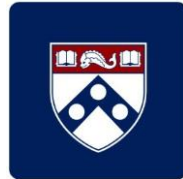
The Market Is Already Moving Beyond Traditional Wearables

Across academia, pharma & AI, precision medicine is shifting toward **longitudinal biology**.

*“Perhaps the next generation of AI won't be enabled by the latest and greatest foundation models, **but by new measurement technologies capable of capturing human biology longitudinally.**”*

- Michael C. Montalto, PhD / *Vice President, Precision Medicine, Amgen*

LEADING PLAYERS – AND CAPITAL – ARE ALREADY MOVING IN THIS DIRECTION



ACADEMIA Stanford Medicine · Broad Institute (MIT&Harvard) · Penn Medicine · Arc Institute (Stanford&UC Berkeley)

PHARMA Amgen · Eli Lilly **AI** Google DeepMind · Anthropic

July 2026 – Eli Lilly invests in Oura
as the wearable platform expands deeper into metabolic health.

The race to move continuous health monitoring
from physiology toward biology **has already begun.**

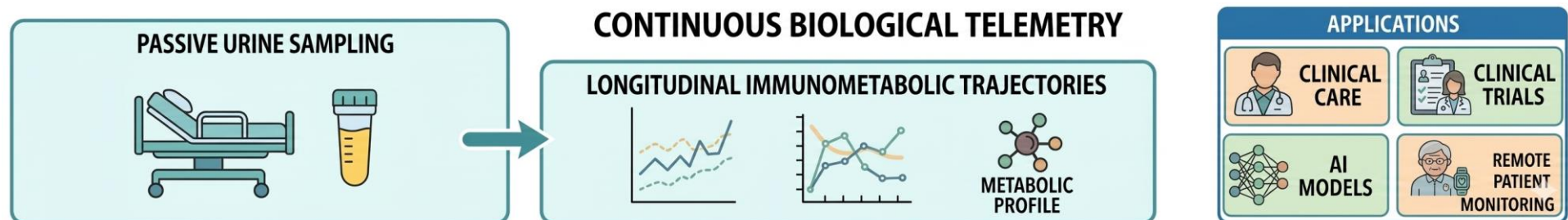
Solution: The Next Generation of Health Monitoring May Not Be Wearable

While the market is investing to move continuous health monitoring deeper into biology,
Hidden Motif already has the core technology to do it at scale.

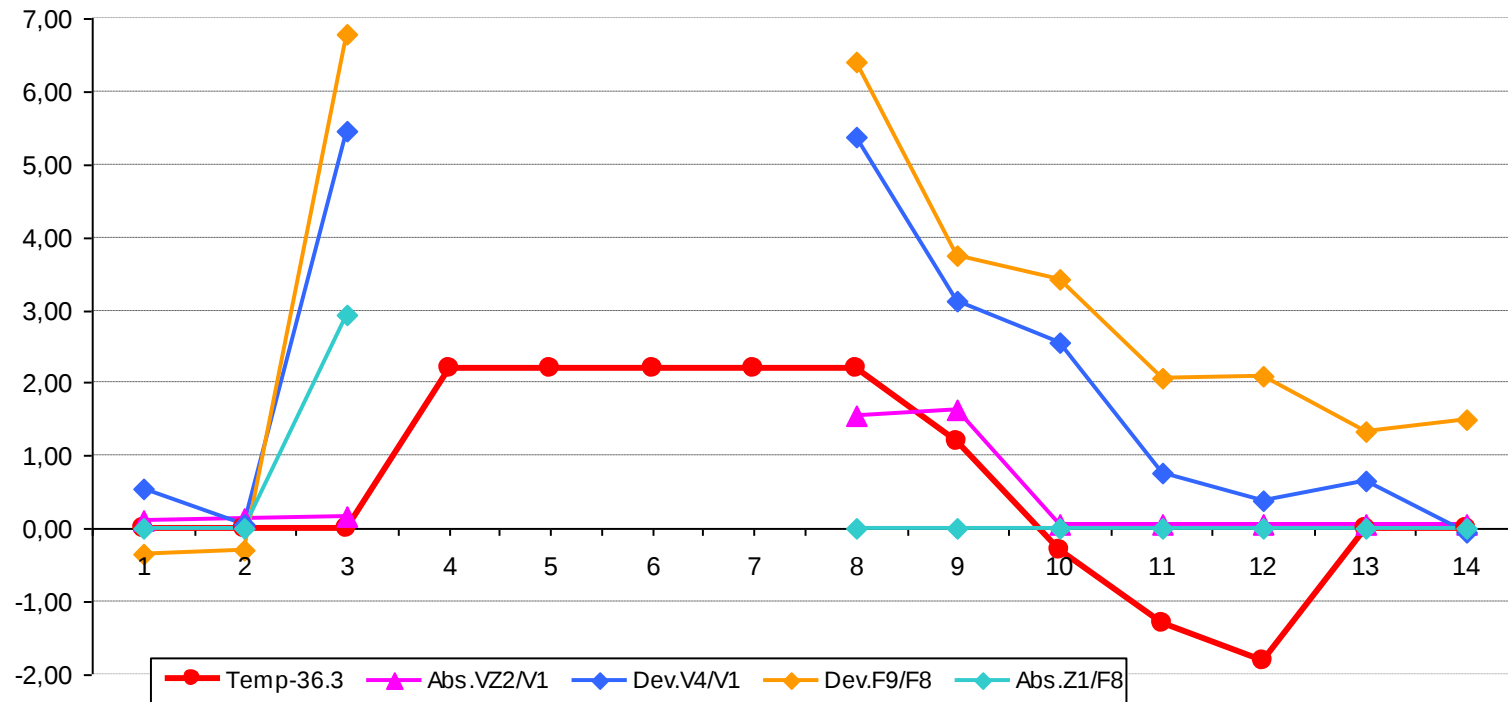
Our platform turns passive, non-invasive urine sampling into longitudinal immuno-metabolic trajectories – enabling high-frequency biological monitoring at the point of care.

High-frequency • Non-invasive • Cost-effective • Point-of-care • Scalable

Together, these capabilities create
a scalable biological data engine for next-gen precision medicine
– turning biological snapshots into continuous trajectories and enabling clinically actionable insights across healthcare delivery, clinical trials, and remote patient monitoring.



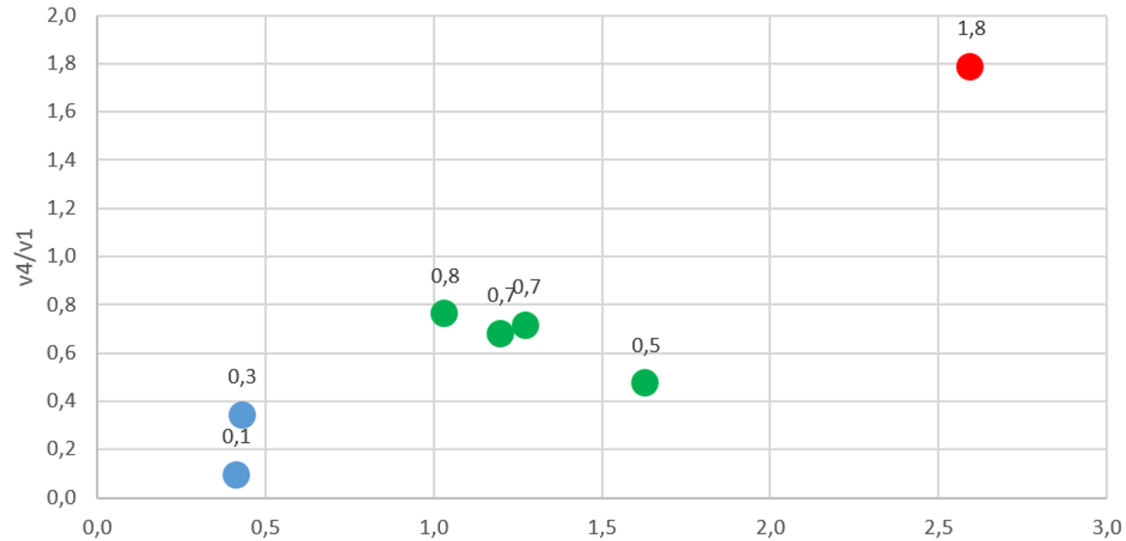
Longitudinal Biological Trajectories in Practice (*Atypical Pneumonia*)



- **Days 1-2:** Personal baseline
- **Day 3:** Deviation from baseline (♦, ♦, ♦↑); Disease-associated pattern emerges
- **Day 4:** First fever (●↑) – 24 h after trajectory deviation; Ineffective treatment
- **Day 8:** Effective treatment initiated
- **Days 8-14:** Trajectory-specific return toward baseline.

A single longitudinal biological trajectory reveals disease progression, treatment response, and recovery.

Clinical Similarity Does Not Imply Biological Similarity (Neuroimmune Disorders)



● Healthy controls ● & ● Distinct biological subtypes identified within clinically similar autism spectrum disorder patients

Different biological subtypes may require different treatments and follow different biological trajectories. **Precision medicine requires stratification by biology – not by symptoms alone.**

A Self-Improving Biological Data Infrastructure

- Every new patient contributes a new longitudinal biological trajectory.
- Every new trajectory enriches the biological reference framework for future patients.
 - As the longitudinal biological dataset grows, biological interpretation continuously improves.

The platform continuously builds an increasingly rich biological reference framework for biological trajectory interpretation.

The more longitudinal trajectories the platform captures, the more valuable – and the more difficult to replicate – it becomes.

Why This Has Only Now Become Possible

Longitudinal biology has been constrained by invasive sampling, making high-frequency measurements impractical.

We established urine as a practical biological matrix for scalable, high-frequency longitudinal data generation.

Existing analytical workflows remain centralized, infrastructure-intensive, and incompatible with scalable point-of-care deployment.

We redesigned liquid chromatography for high-frequency point-of-care biological measurements.

Raw urinary metabolomic data are highly complex and difficult to interpret consistently across diseases.

We developed a computational framework that converts raw urinary metabolomic data into reproducible immunometabolic signals, enabling longitudinal biological trajectories across diverse immune-mediated diseases.

Why Existing Technologies Cannot Do This

Different design goals require different architectures.

Multiplex Immunoassays (*Olink • Quanterix • MSD • Luminex*)

Designed to measure predefined biomarkers

- Invasive blood sampling limits measurement frequency
- Not designed for continuous longitudinal monitoring

Mass Spectrometry Metabolomics (*Metabolon • Biocrates • Core Labs*)

Designed for comprehensive metabolic profiling

- Centralized and infrastructure-intensive
- Not designed for routine longitudinal deployment

Hidden Motif

Designed for longitudinal biological data generation at scale

- High-frequency monitoring • Point-of-care operation • Passive urine sampling
- Remote deployment • Self-improving biological data infrastructure

Go-to-Market Strategy

Academic Medical Centers • Translational Research • Clinical Trials

Academic Medical Centers

Generating longitudinal datasets, validating trajectory reproducibility, and establishing early adopters.

Translational Research

Revealing disease progression, treatment response, and recovery dynamics in real-world clinical settings.

Clinical Trials

Enabling a new category of longitudinal biological endpoints for more sensitive treatment-response assessment and biologically defined patient stratification.

Why These Markets First?

- Existing demand for longitudinal biological data.
- Lower regulatory barriers than clinical diagnostics.
- Access to well-characterized patient cohorts and validated clinical outcomes.
- Natural pathway toward broader clinical deployment.

Business Model & Market Expansion

Phase 1: Pilots & Adoption

Product: Longitudinal Biological Response Profiling & Patient Stratification across drug therapies, immunotherapies, cell therapies and transplantation.

Customers: Pharma • CROs • Research Hospitals. Revenue: Study contracts.

Phase 2: **RUO Platform Deployment**

Product: **RUO Longitudinal Biological Data Platform –**

– OEM analyzers with cloud-based biological trajectory analytics.

Customers: Pharma • CROs • Research Hospitals.

Revenue: Analytics subscriptions • OEM revenue sharing

Phase 3: **Clinical Platform Deployment**

Product: **Clinical Longitudinal Biological Data Platform –**

– OEM analyzers with integrated biological trajectory analytics.

Customers: Healthcare & Wellness Providers • Health Systems • RPM Providers.

Revenue: Analytics subscriptions • OEM revenue sharing

Validation & Early Traction

Technology Risk Reduced

- Working urine immunometabolomics prototype.
- Longitudinal biological trajectories demonstrated in infectious diseases.
- Early evidence of biological patient stratification in neuroimmune disorders.

Clinical Interest Validated

- LOI & Active pilot collaboration: NIMCARE Neuroimmunology (Serbia).
- Clinical collaboration LOI: Hadassah (Israel) - access to pilot study samples.

Manufacturing Path Validated

- Defined pathway toward scalable RUO platform deployment.
- OEM manufacturing LOI: SIELC (USA) - Analyzer development & scalable manufacturing.

Expert Validation

- Expert feedback from leaders in critical care, neuroimmunology, and transplantation.
- Experts consistently identified scalable longitudinal biological data as a transformative unmet capability.

Roadmap

2026-2027

- Expansion of longitudinal biological trajectory datasets.
- Demonstration of biological response trajectories across multiple disease areas.
 - Validation of patient stratification across independent cohorts.
 - Expansion of academic and clinical collaborations.

2027-2028

- Multi-site RUO pilot studies.
 - Development of OEM-integrated analyzer systems.
- Multi-site deployment in research and clinical study environments.
- Integration into clinical trials and translational research programs.

Vision: Building the Longitudinal Biological Data Infrastructure for the Next Generation of AI-Driven Medicine

Wearables made continuous physiological monitoring routine.

The next generation will bring continuous biological monitoring **into everyday healthcare.**

- **Millions of connected point-of-care analyzers** continuously generate longitudinal biological data across hospitals and homes.
- **Longitudinal biological trajectories become a new class of endpoints** for clinical trials, drug development, and treatment-response monitoring.
 - Every measurement contributes to **a growing biological data engine**, creating an increasingly valuable longitudinal map of human biology.
- Continuous biological monitoring **becomes a foundational layer for precision medicine and AI-native healthcare.**

Hidden Motif:

From Continuous Physiology to Continuous Biology

Team



Konstantin Sychev, PhD (CEO&CTO)

- 30+ years in analytical chemistry and scientific instrumentation.
- 17 years leading scientific R&D, product development, and global commercialization.
 - Author of three books on HPLC and analytical instrumentation.
 - Inventor of the Continuous Biological Monitoring technology.



Evgeniya Okunskaya, MSc (COO&Compliance)

- 12+ years across pharmaceutical, biotech, and startup environments, spanning quality systems, analytical laboratories, regulatory operations, and operational execution.

Clinical development guided through collaborations with internationally recognized physician-scientists and the establishment of a Clinical Advisory Board.

Hidden Motif combines a rare mix of analytical chemistry, scientific instrumentation, and commercialization expertise built over decades.