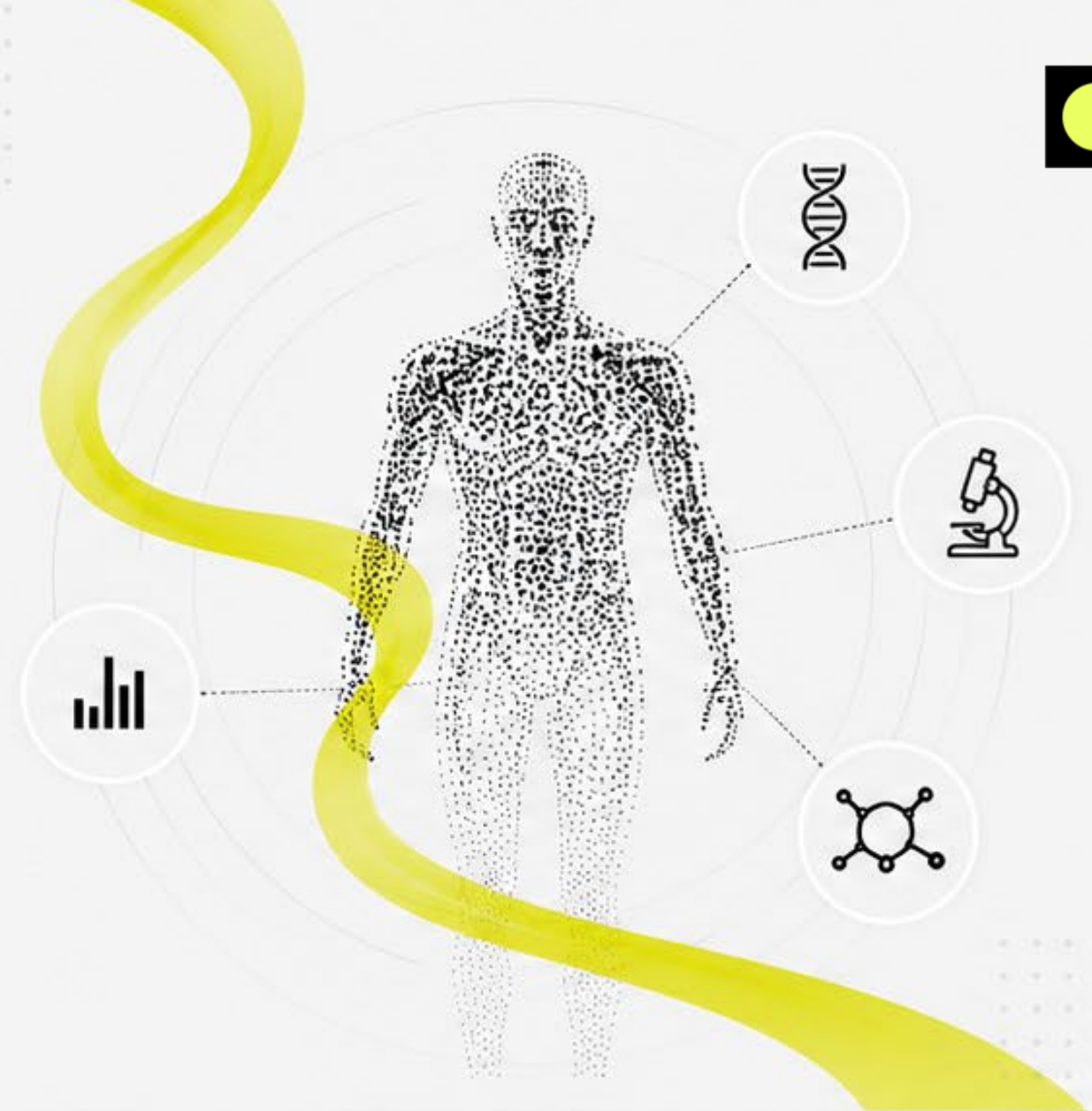




From Data To Decisions

Building a Scalable Clinical Workflow
with Advanced Laboratory Testing and AI



Signal

High-quality
physiological data



Interpretation

Structured clinical
reasoning



Action

Personalised care
and better outcomes



PRESENTED BY

Michael Ash

DO, ND, BSc (Hons), RNT, FRSM

Co-Founder & Chief Medical
Strategy & Education Officer



PRESENTED BY

Lylen Ferris

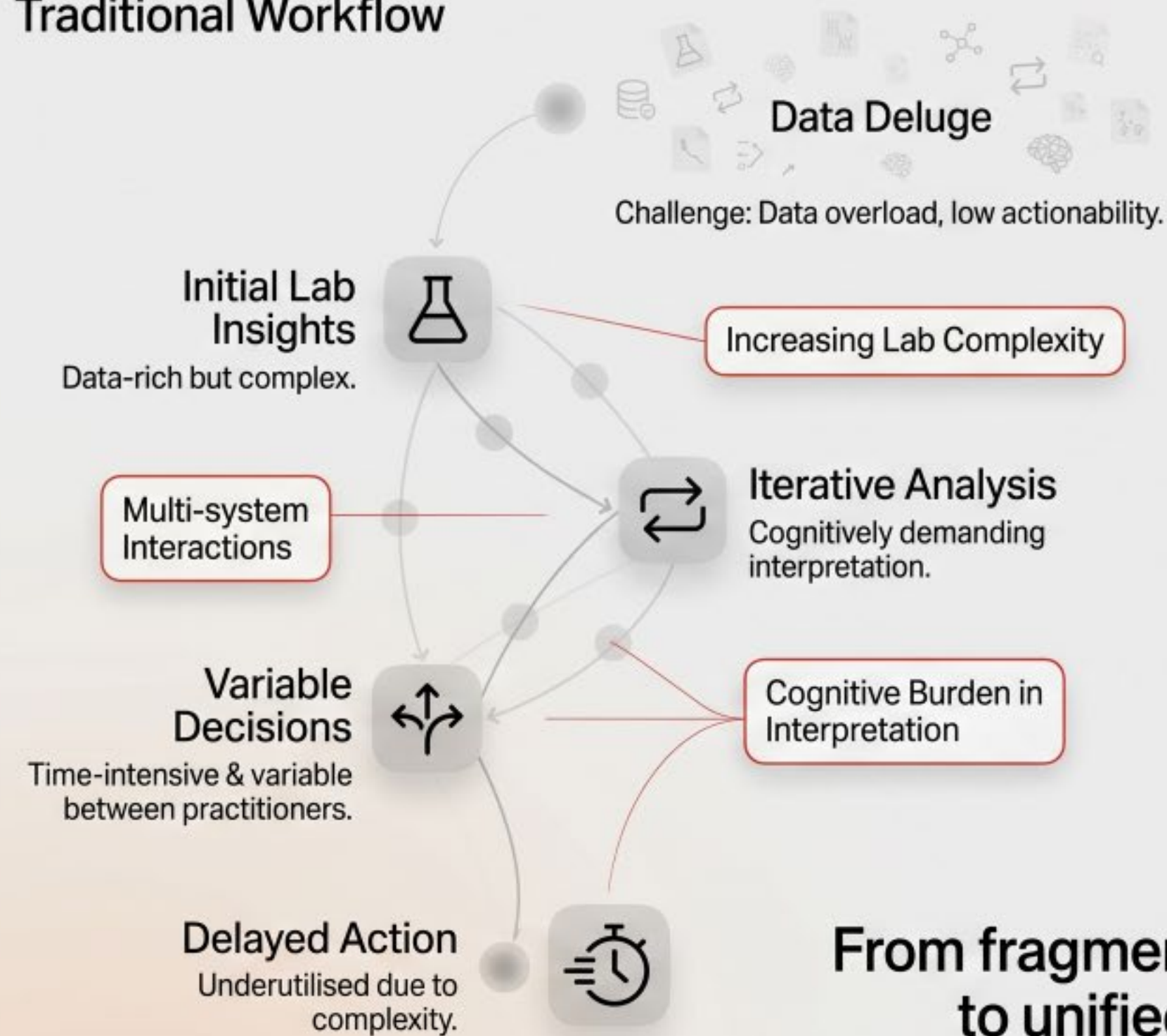
ND

Director of Clinical
Education at Doctor's Data

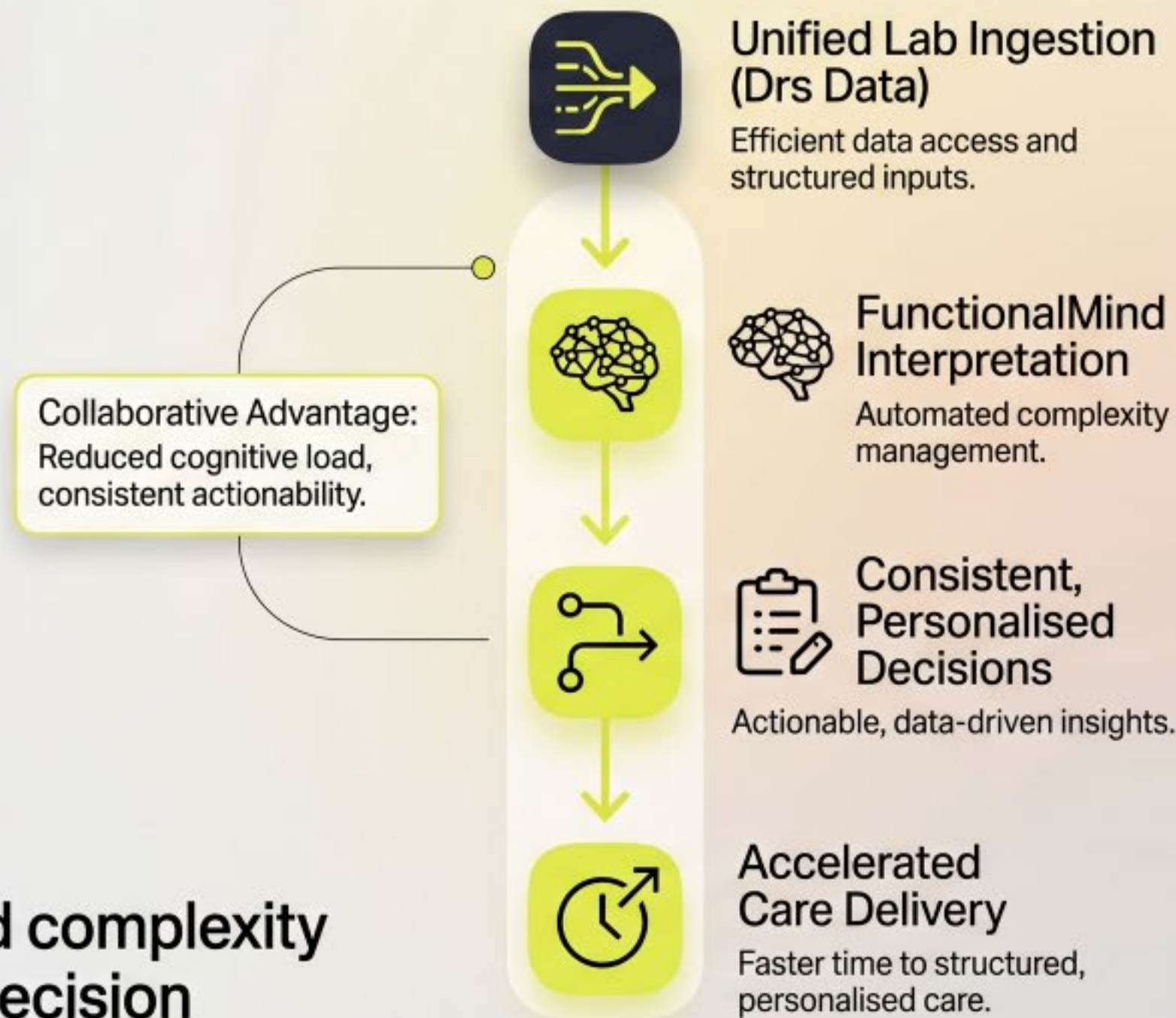


The Clinical Reality

Traditional Workflow



Drs Data & FunctionalMind Collaboration



From fragmented complexity to unified precision



The Hidden Cost Of Cognitive Load

Building a Scalable Clinical Workflow
with Advanced Laboratory Testing and AI



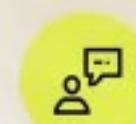
Step 1: Information Overload

- Excessive Working Memory Burden
- Hold multiple clinical variables simultaneously
- Excessive cognitive strain from information streams, like complex data patterns.



Step 2: Decision Fatigue

- Progressive Generation of Fatigue
- Decision points increase demand
- Risk of omission, inconsistency, and delayed decisions rises proportionally.



Step 3: Degraded Clinical Reasoning

- Lower Quality Reasoning
- Consistency in decisions is degraded
- Effective data processing is the critical challenge within human capacity.

Three Questions Every Practitioner Asks



Diagnostic Strategy

Which Test Should I Run?



Optimizing test selection amidst uncertainty.



Data Transformation

What Does It Mean?



Interpreting complex data into clinical insight.



Patient-Centred Action

What Should I Do?

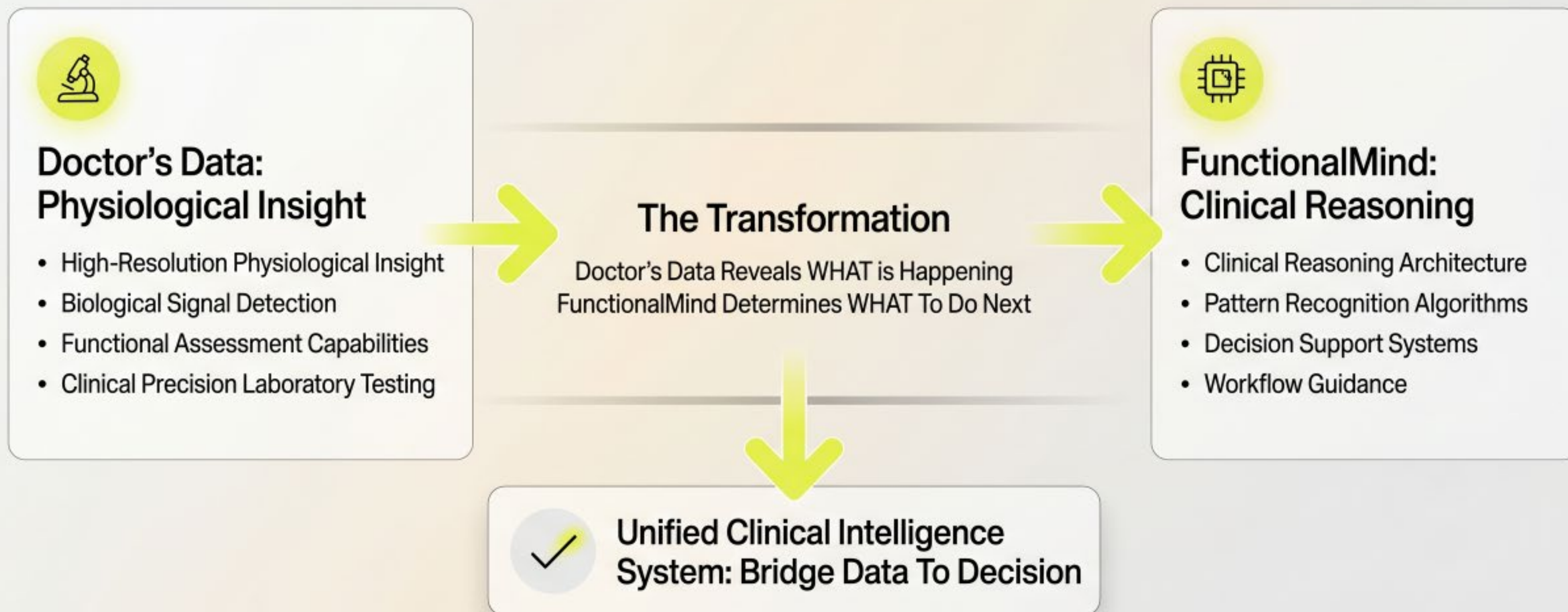


Translating understanding into precise intervention.

The essential architecture of clinical decision-making, determining practitioner performance and patient outcomes.



The Combined Clinical Intelligence Model



Integrated Partnership creates a Unified System.
Transforming Signal to Interpretation, and Interpretation to Action.



Clinical Intelligence Workflow

The complete operating system, from clinical question to personalised care



Clinical Question

What is the clinical question to personalise care for?



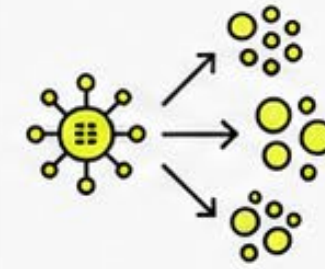
Patient Context

Understand the patient to identify and guide personalised care



Data Ingestion

Manage data streams from diverse sources



Pattern Recognition

Detect patterns in data and generate data visualizations



Clinical Hypothesis

Generate clinical hypotheses from clinical and ambient data



Interpretation

Analyse data and generate insights from clinical and ambient data



Interpretation

Analyse data and generate insights from clinical and ambient data



Protocol Selection

Select embedded or self created clinical frameworks or protocols for personalisation



Co-Pilot Refinement

A clinician—AI partnership to refine insights and recommendations

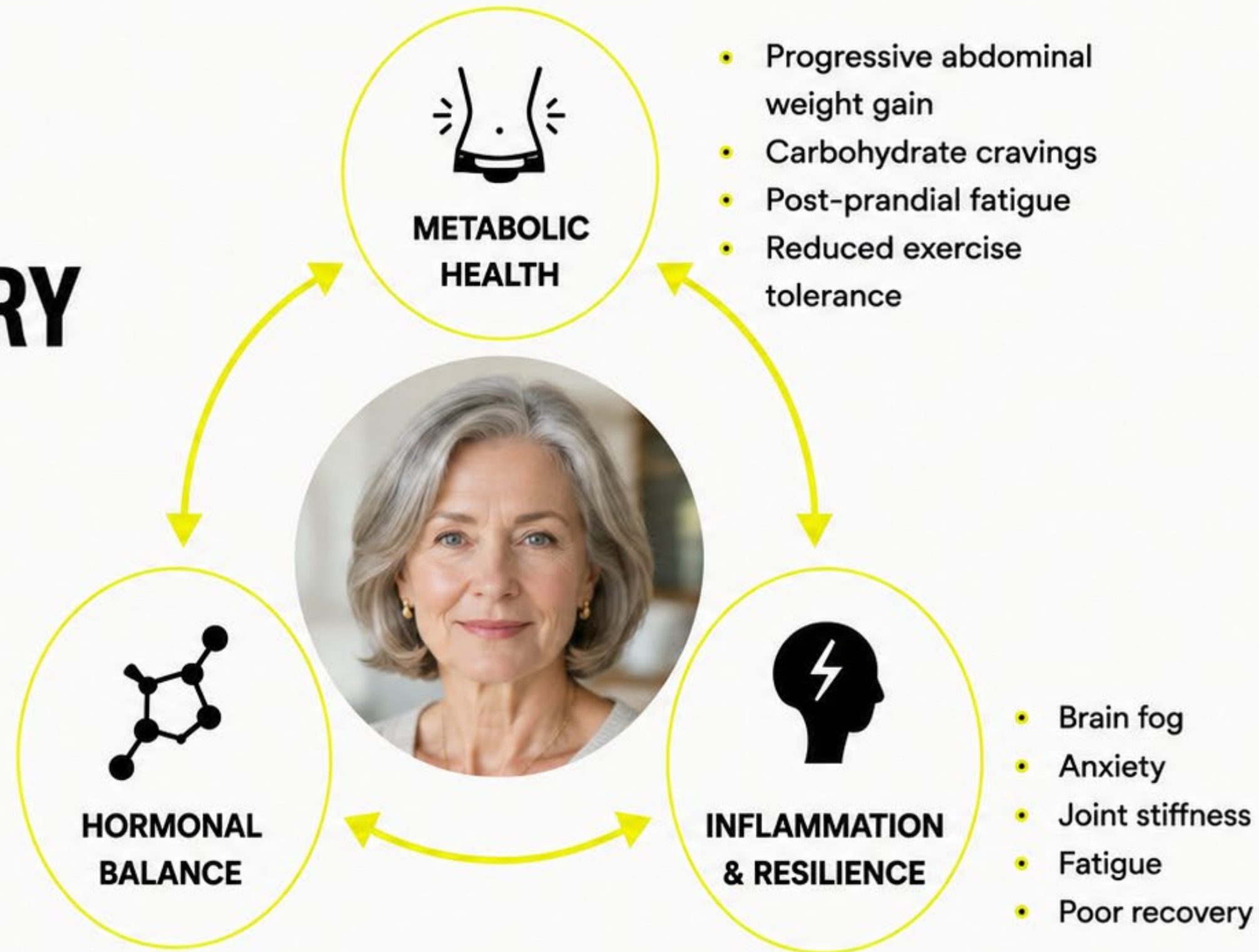


Personalised Care Plan

HELEN'S CLINICAL STORY

A 67-Year-Old Female
Presenting With
Multi-System
Dysfunction

- Post-menopausal
- Hair thinning
- Facial hair growth
- Hot flashes
- Sleep disruption



The presentation is not a collection of isolated symptoms.
It is a connected systems problem affecting metabolism, hormones, inflammation, cognition and resilience.



FUNCTIONAL
MIND



MAPPING THE SYMPTOM BURDEN



MSQ Domains Reveal The Dominant Systems Under Stress



13

JOINTS & MUSCLE

Pain • Stiffness
Weakness



11

MIND

Memory •
Concentration •
Decision Making



10

WEIGHT

Cravings •
Weight Gain •
Metabolic Dysfunction



10

DIGESTIVE

Bloating •
Constipation



9

ENERGY

Fatigue •
Poor Recovery



8

EMOTIONS

Anxiety •
Mood Changes



MSQ TOTAL SCORE:

94

The dominant symptom burden spans metabolic, neurocognitive, inflammatory and hormonal domains.

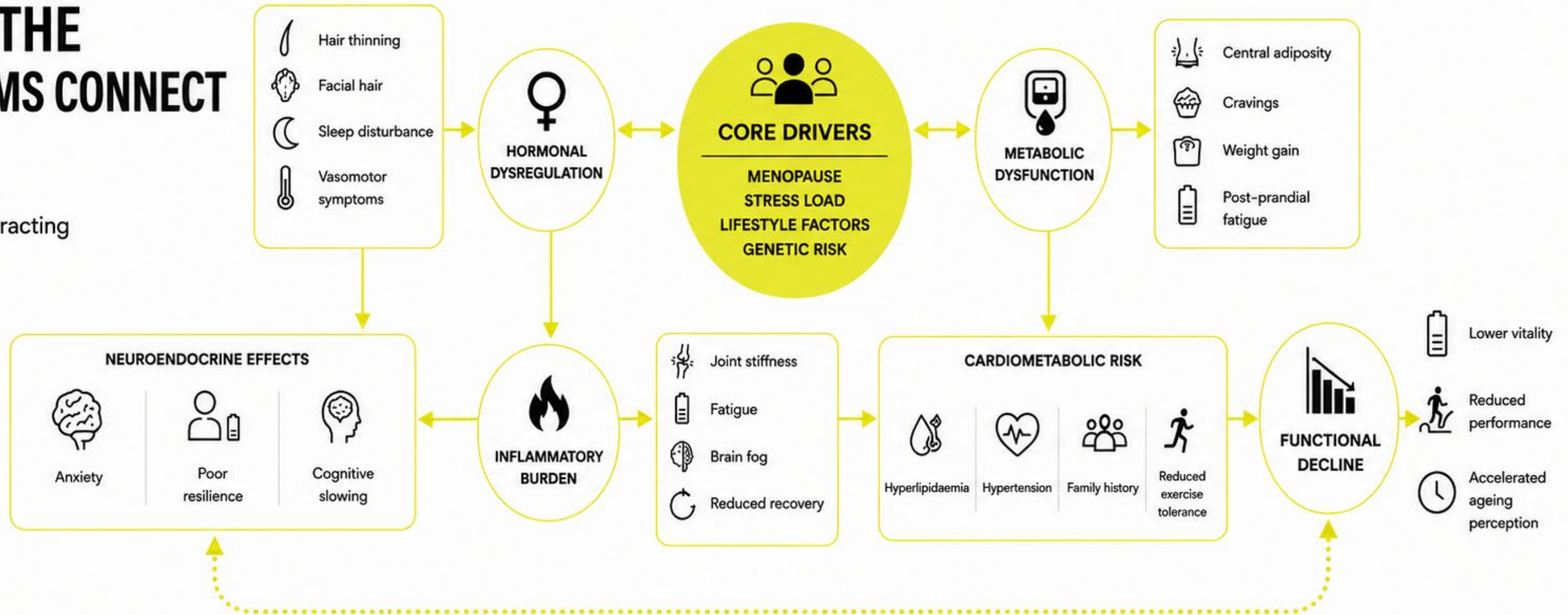


FUNCTIONAL
MIND



HOW THE SYSTEMS CONNECT

One Patient.
Multiple Interacting
Drivers.



The clinical objective is not symptom suppression.

It is identifying the upstream drivers connecting these systems.





Mapping The Symptom Burden



Symptom Identification

Systematic approach: medical symptoms questionnaire.

- Initial pattern recognition to guide investigation priorities.



Clinical Quantification

Quantify clinical complexity objectively.

- Transforms subjective experience into structured data.



Comprehensive Analysis

Prevents symptom fragmentation.

- Analyzes systems involvement across physiological domains.



Questions & Answers

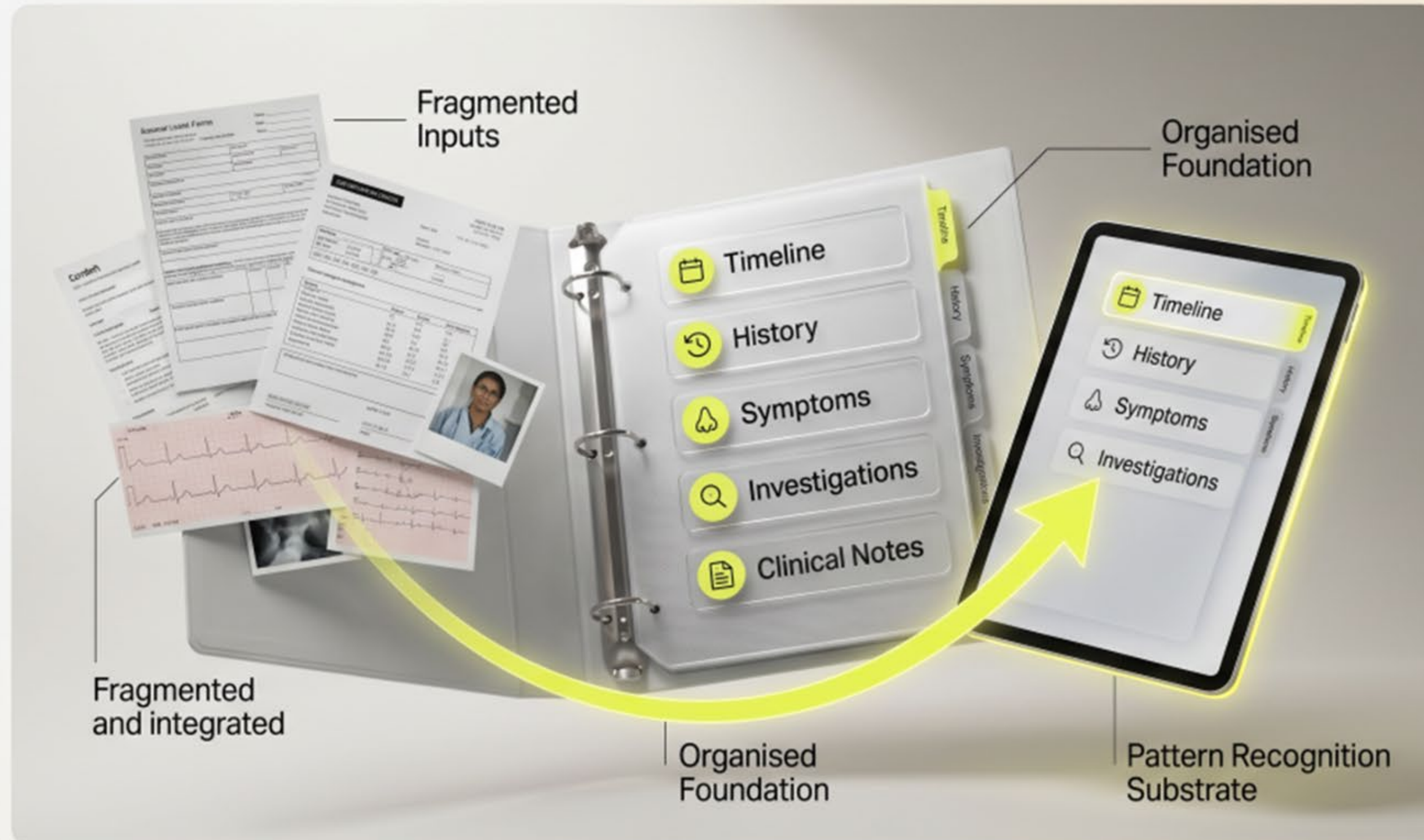
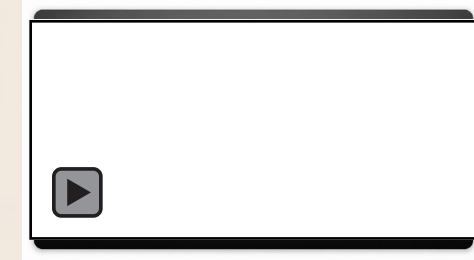


Try FunctionalMind for free
No CC
Free to use, but limited per week
Membership available - unlimited



Patient Folder Creation

Systematic organisation of fragmented clinical data into a coherent patient story.



Consolidation: Fragmented data organized into structured history & timeline.



Context: Systems established before analysis begins.



Foundation: Enables pattern recognition and diagnostic precision.



Building The Patient Folder

This demonstration shows how fragmented clinical information is transformed into a structured patient context, supporting deeper clinical reasoning.

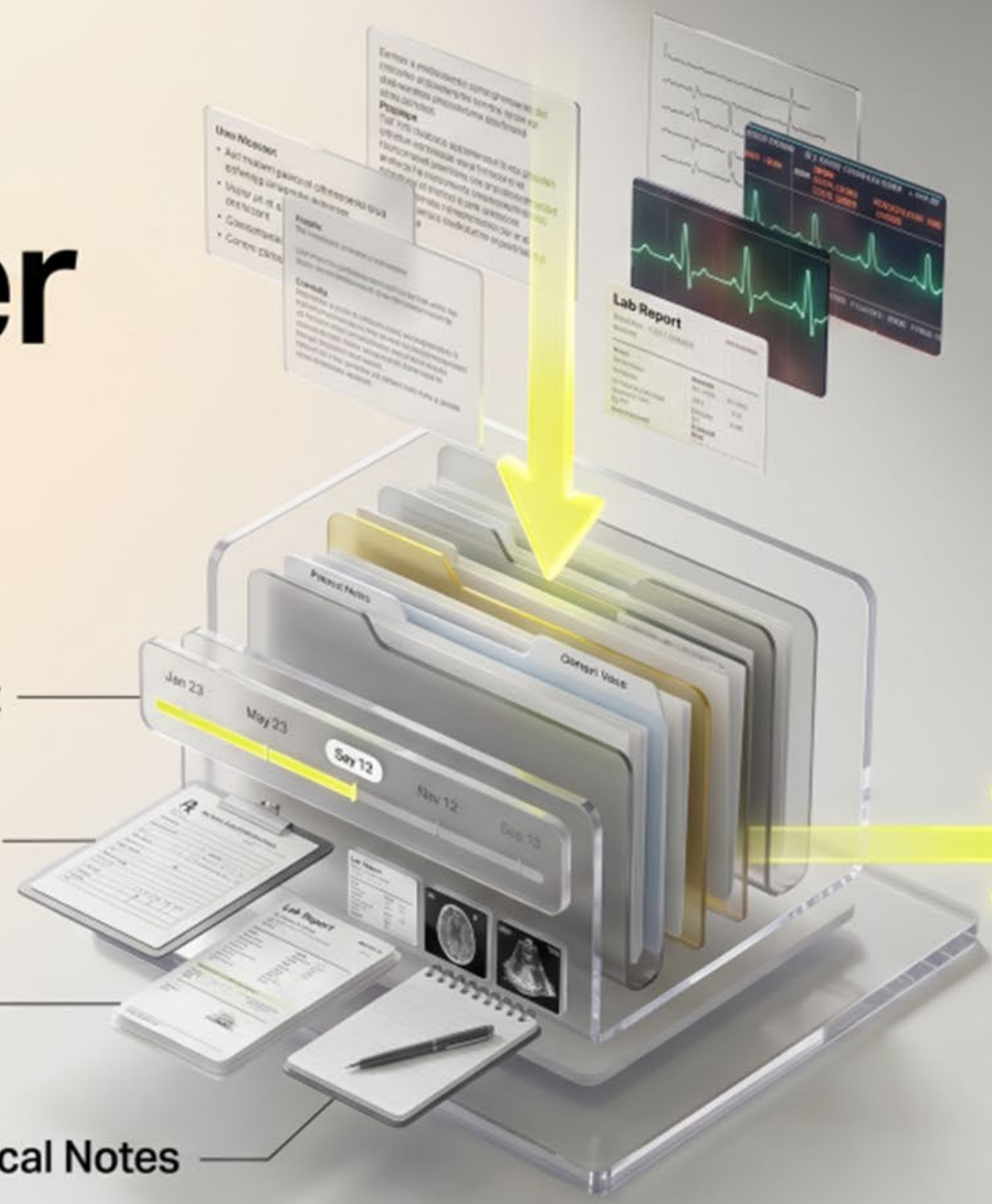


Timeline Context

Symptom History

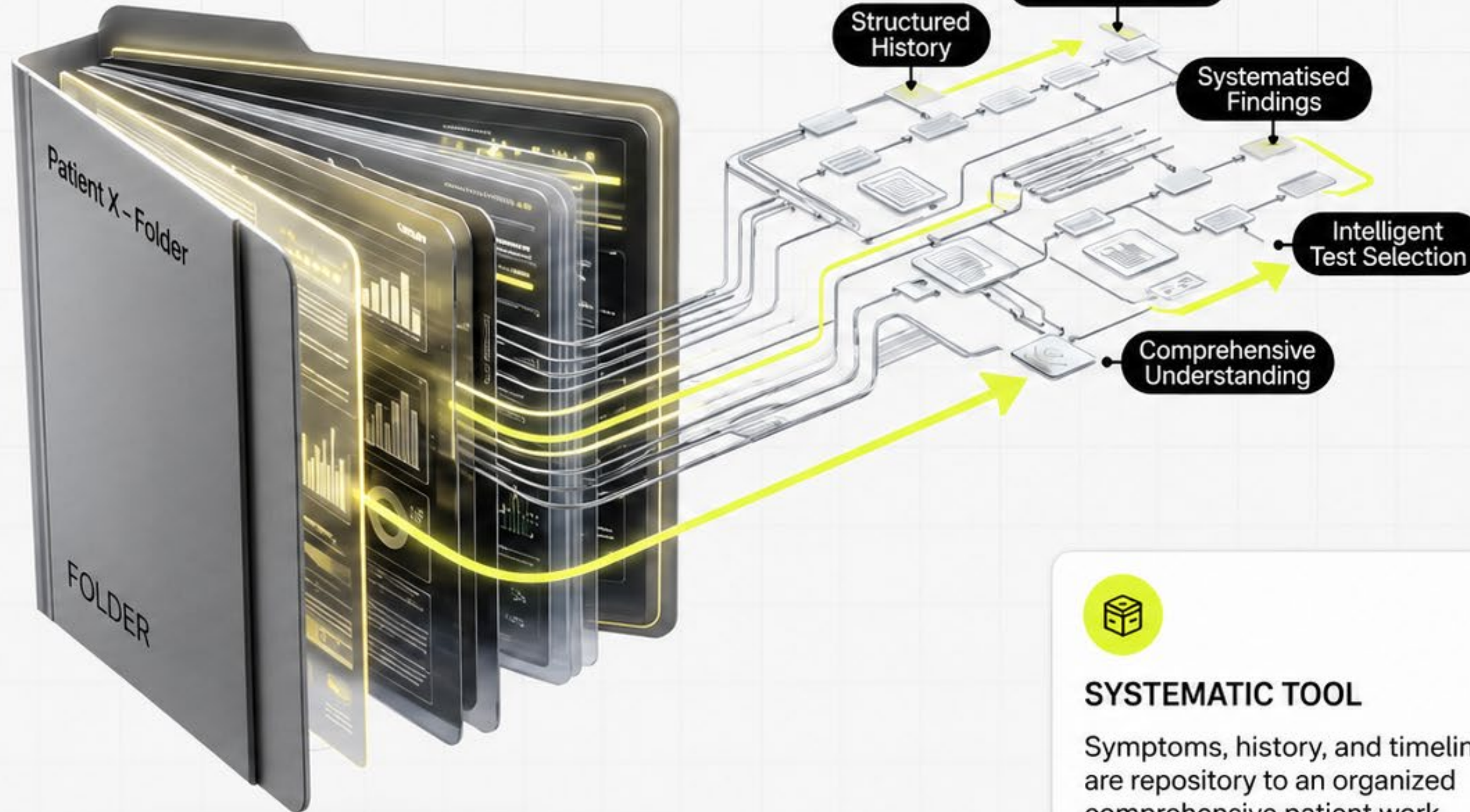
Previous Investigations

Clinical Notes



Deeper Clinical Reasoning

Inside The Folder



SYSTEMATISED DATA

Symptoms, history, and timelines are structured into an organized framework



REASONING TOOL

Transformation from a passive repository to an active tool for intelligent test selection and pattern recognition



SYSTEMATIC TOOL

Symptoms, history, and timelines are repository to an organized comprehensive patient work

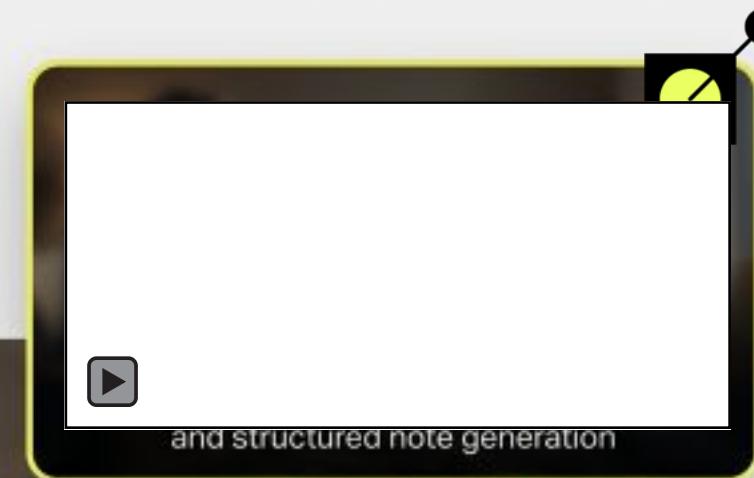


PRACTITIONER POSITION

Comprehensive understanding rather than fragmented recall for comprehensive patient care



FunctionalMind™ Scribe



ENHANCED ENGAGEMENT

- More eye contact
- Better active listening
- Reduced keyboard distraction

LIVE STRUCTURED CAPTURE

- Real-time transcription
- Longitudinal note storage
- Searchable consultation intelligence

IMPROVED CLINICAL OBSERVATION

- Better recognition of subtle physical and emotional cues
- More present practitioner interaction

More focus on the patient. Less focus on documentation.

Why FunctionalMind Is Different

Moving From General Intelligence To Clinical Intelligence

Generic AI



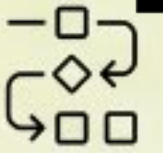
? → Answer

- Simple Interaction (max 3)
- Answers Questions (max 3)
- No Clinical Context (max 3)

Produces Answers

The Transformation

FunctionalMind



Patient Context
Longitudinal History



Case Folder
Structured Data

Test Selection

Lab Interpretation

Pattern Recognition

Clinical Hypothesis

Care Plan

Co-Pilot Refinement

Guides Clinical Decisions

The Difference Is Not Access To Information

The Difference Is Having A Structured Clinical Intelligence Architecture Designed For Patient Care



Every Test Should Answer A Question

Targeted Testing



**High-Value
Diagnostics Emerge
Clear Hypotheses**

Question-driven testing results.

Information Gaps



**Information Gaps
Determine Appropriate
Test Selection**

Targeted laboratory needs.

Hypothesis



**Hypotheses Reveal
Information Gaps**

Specific clinical queries.

Clinical Status



**Symptoms
Generate
Hypotheses**

Symptoms observed.



Principle: Question-driven testing transforms laboratory investigation from data collection into targeted clinical inquiry. Maximize diagnostic yield while minimizing unnecessary burden and patient cost.

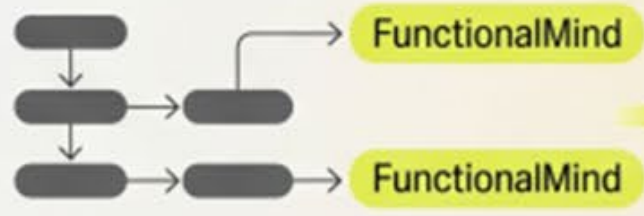
Doctor's Data Test Selection Framework

High-Value Testing: Clear Clinical Question



Define Question
Identify patient symptoms/concerns
minimal supporting text

Evaluate Portfolio
Consult Doctor's Data testing options



Match Panel
Map clinical question to
appropriate panel



Action Plan
Integrate with clinical workflow
for interpretation

Gastrointestinal Assessment
Minimal supporting to testing, comprehensive GI testing

Nutritional Analysis
Minimal supporting for nutritional profiling

Metabolic Profiling
Minimal supporting for metabolic data

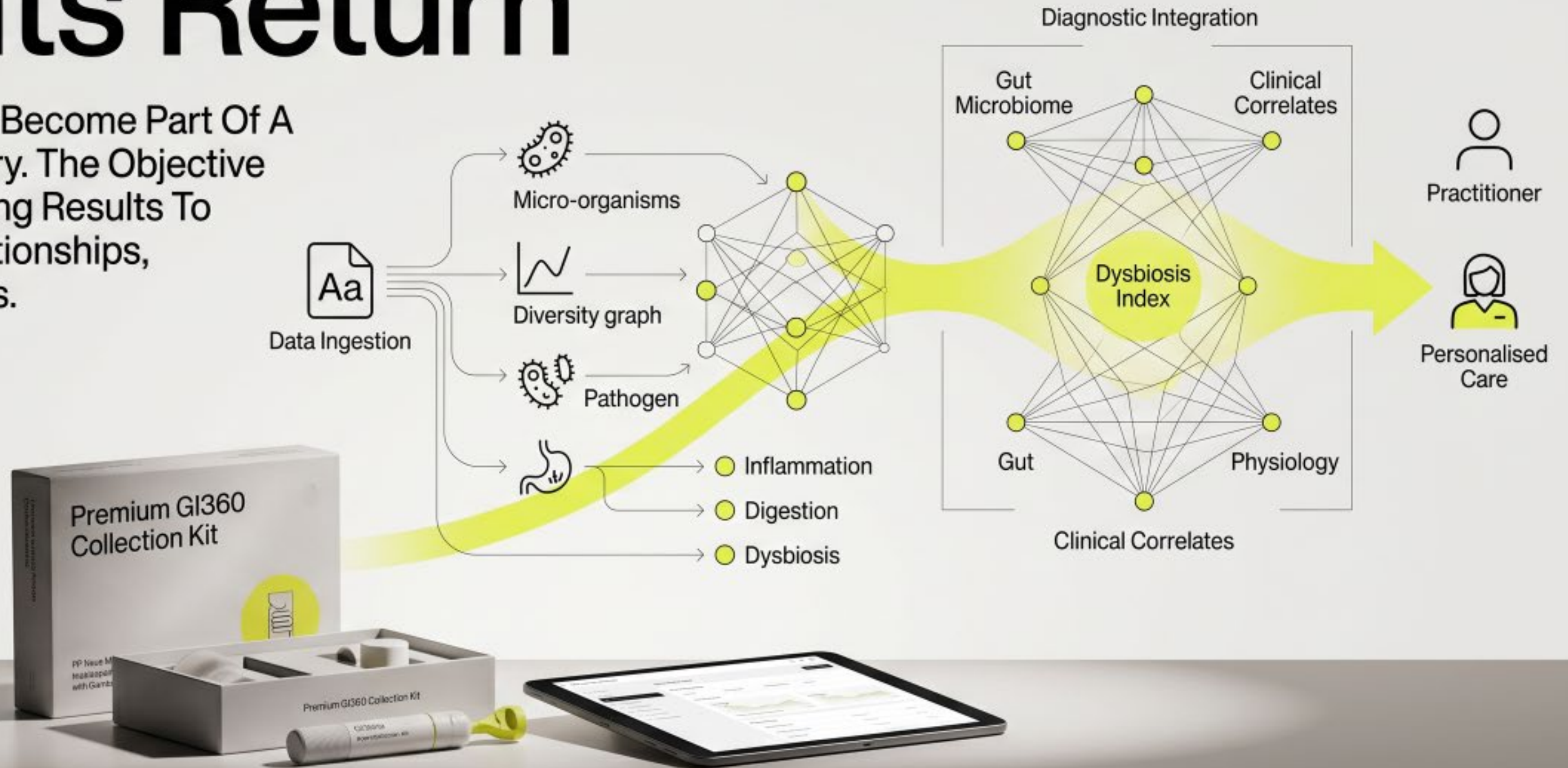
Toxicological Evaluation analysis
Minimal for toxic burden and environmental analysis





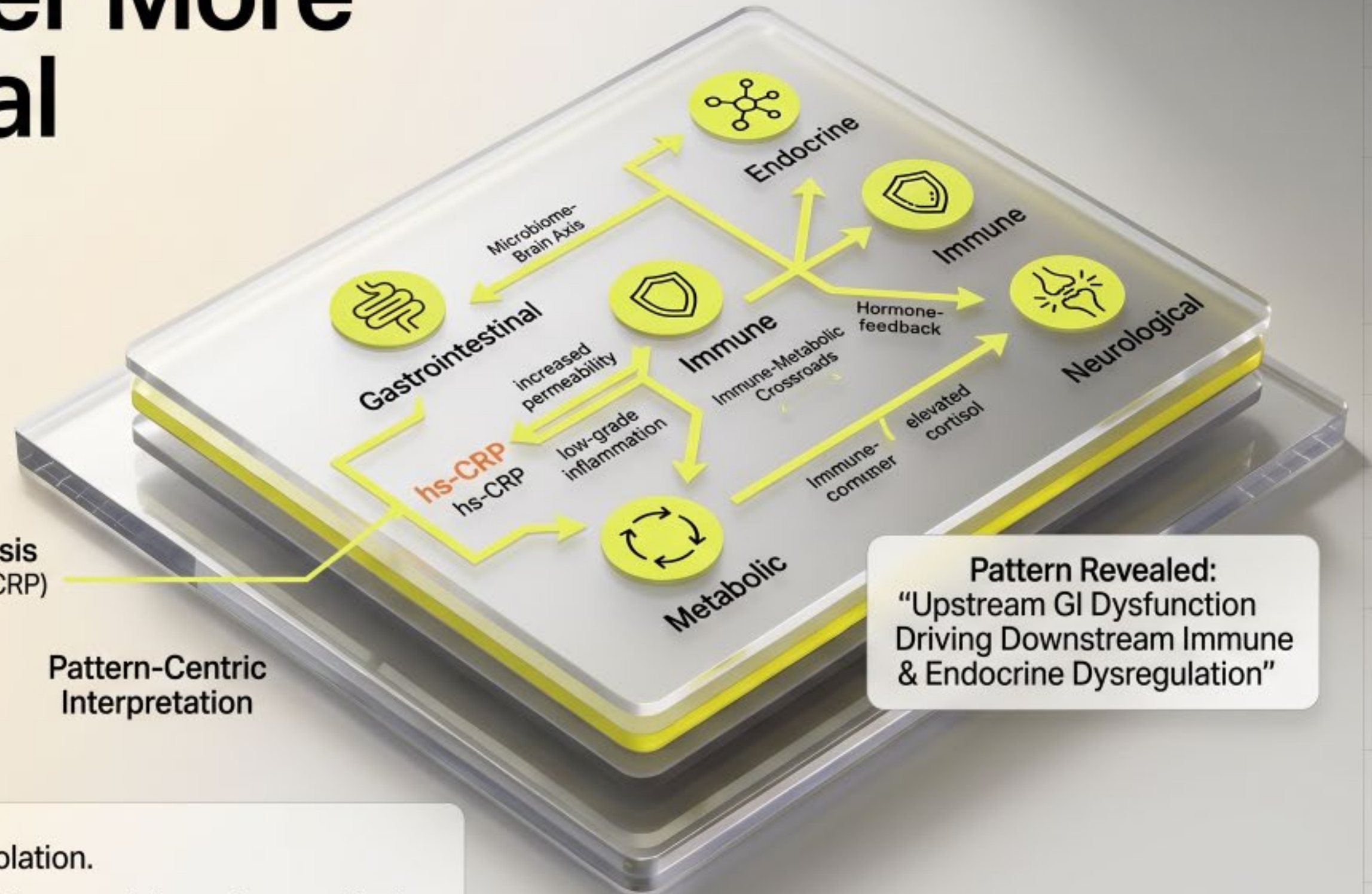
What Does It Mean? Results Return

Isolated Biomarkers Become Part Of A Broader Clinical Story. The Objective Shifts From Reviewing Results To Understanding Relationships, Patterns, and Drivers.



Patterns Matter More Than Individual Biomarkers

Revealing interconnected physiological stories across systems.



Single-Marker Analysis
Inflammatory Marker (hs-CRP)
Borderline/Nonspecific

Pattern-Centric Interpretation

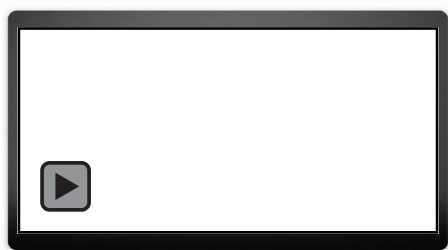
Pattern Revealed:
“Upstream GI Dysfunction Driving Downstream Immune & Endocrine Dysregulation”

- Individual markers are often nonspecific in isolation.
- System-based analysis uncovers upstream drivers and downstream effects.
- Transforms lab data from numbers to integrated clinical insight.





The Co-Pilot Cycle



Co-Pilot Refinement

Systematic Quality Assurance for Final Care Plans



Gap Detection

- Identifies omissions and incomplete reasoning.
- Locates critical data points.
- Flags potential missed diagnoses.



Iteration

- Challenges underlying clinical assumptions.
- Explores alternative interpretations.
- Develops multiple hypotheses.



Safety Review

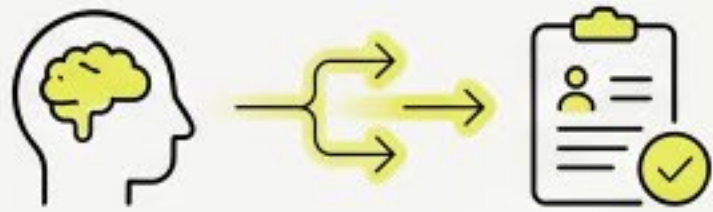
- Ensures recommendations are appropriate.
- Addresses contraindications and risks.
- Validates against established protocols.



What Should I Do?

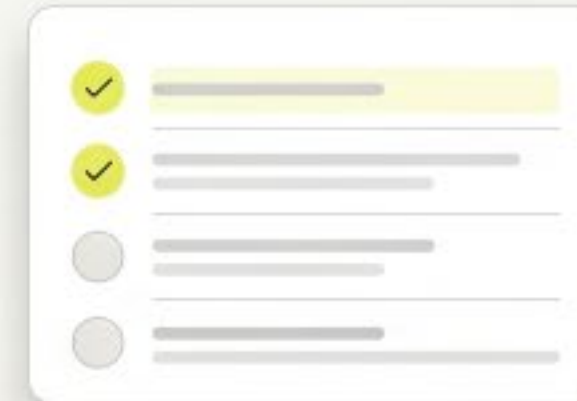


Structured Reasoning → Practical Recommendations



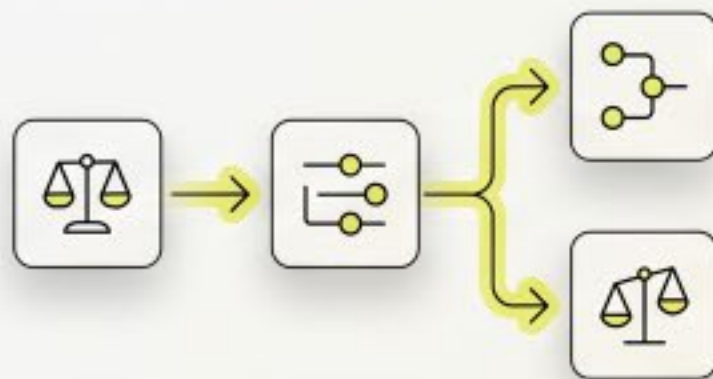
Translating analysis into focused actions.

Clear Priorities & Implementation



- Identified high-priority interventions.
- Step-by-step action plans.

Adaptive Protocols & Consistency



- Standardized care pathways while preserving clinical judgement.
- Dynamic response to patient change.

Patient-Centred Outcomes & Efficiency

	Time	Patient Load	Admission Priority	Efficiency
1	████████	0-100	████████	████████
2	████████	11-400	████████	████████
3	████████	5-400	████████	████████
4	████████	0-400	████████	████████
5	████████	0-200	████████	████████
6	████████	0-400	████████	████████
7	████████	0-100	████████	████████

- Focused on relevant patient metrics.
- Streamlined workflow for clinical teams.

Personalised Care Plan Creation



Translating structured reasoning into practical, patient-centred care plans. This process integrates clinical findings, priorities, and preferences into a clear therapeutic strategy, guiding practitioners from interpretation to final plan formulation.



INPUTS & REASONING

Working Memory Burden
& Hypothesis-Driven
Priorities

- Clinical findings integration.
- Interpretation of data.
- Hypothesis formulation.



GUIDED FORMULATION

System-Guided Workflow
& Protocol Selection

- Practitioner guidance.
- Structured pathway.
- Select optimal protocols.



FINALIZED CARE PLAN

Coherent Therapeutic
Strategy & Patient-Specific
Adaptation

- Clear direction.
- Patient preferences included.
- Flexible implementation.

Signal → Insight → Action

Transforming laboratory data into meaningful clinical outcomes.



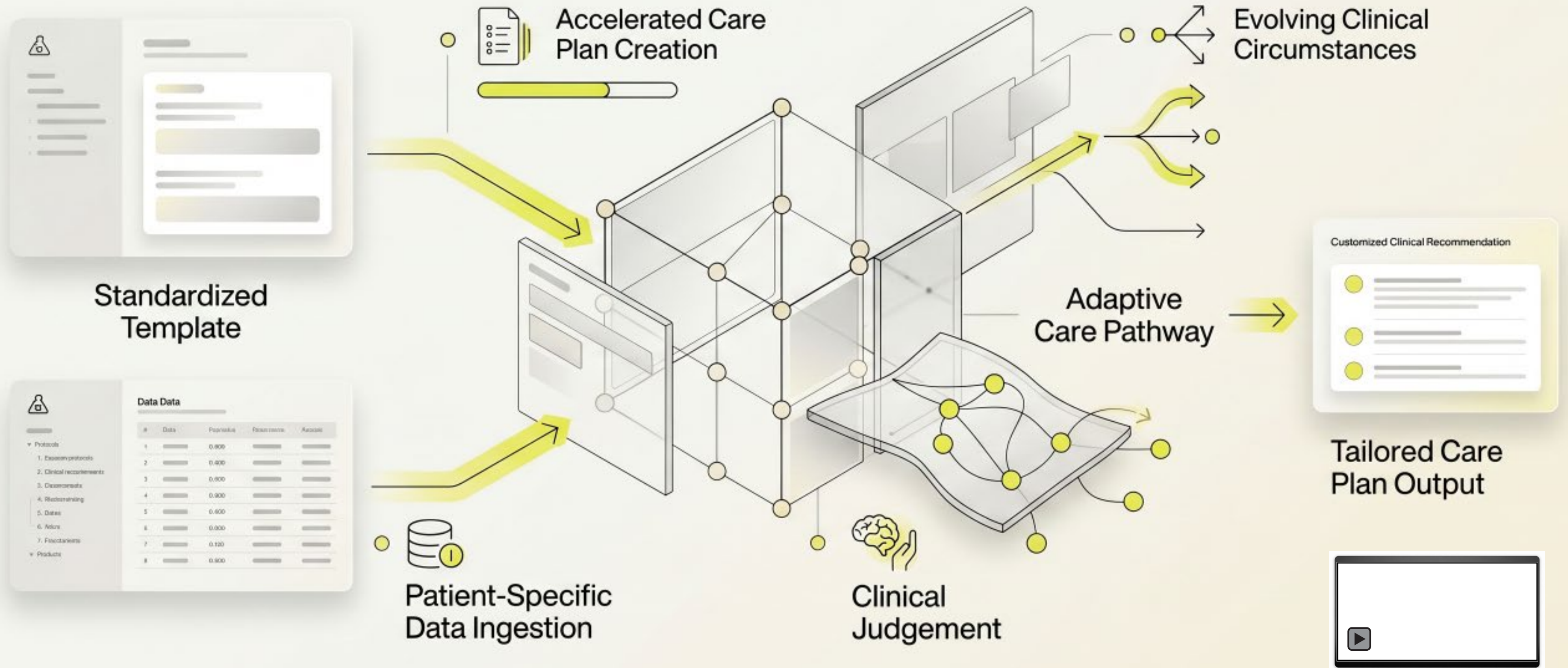
Laboratory Data –
provides the raw signal

Clinical Reasoning –
creates meaningful insight

Structured Workflow –
converts insight into action



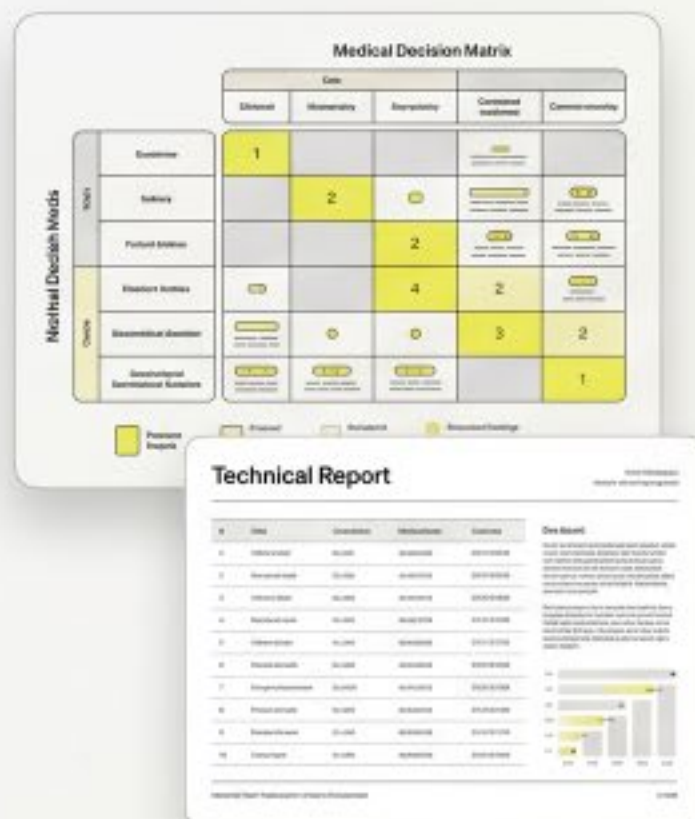
Adaptive Protocol Scaffold



Patient Communication Layer



Clinical Insight Input



TECHNICAL INSIGHT

Complex clinical reasoning & data analysis

Insight Translation Module



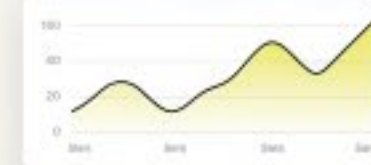
INSIGHT TRANSLATION

TECHNICAL INSIGHT must be translated into **MEANINGFUL EDUCATION** that improves engagement, adherence, and outcomes.

Patient Understanding & Engagement

A Patient Visual Summary

Patient Dashboard



Summary



B Actionable Care Plan

YOUR CARE STEPS

- 1. Next Medication Step
- 2. Home Monitoring Task
- 3. Follow-up Appointment

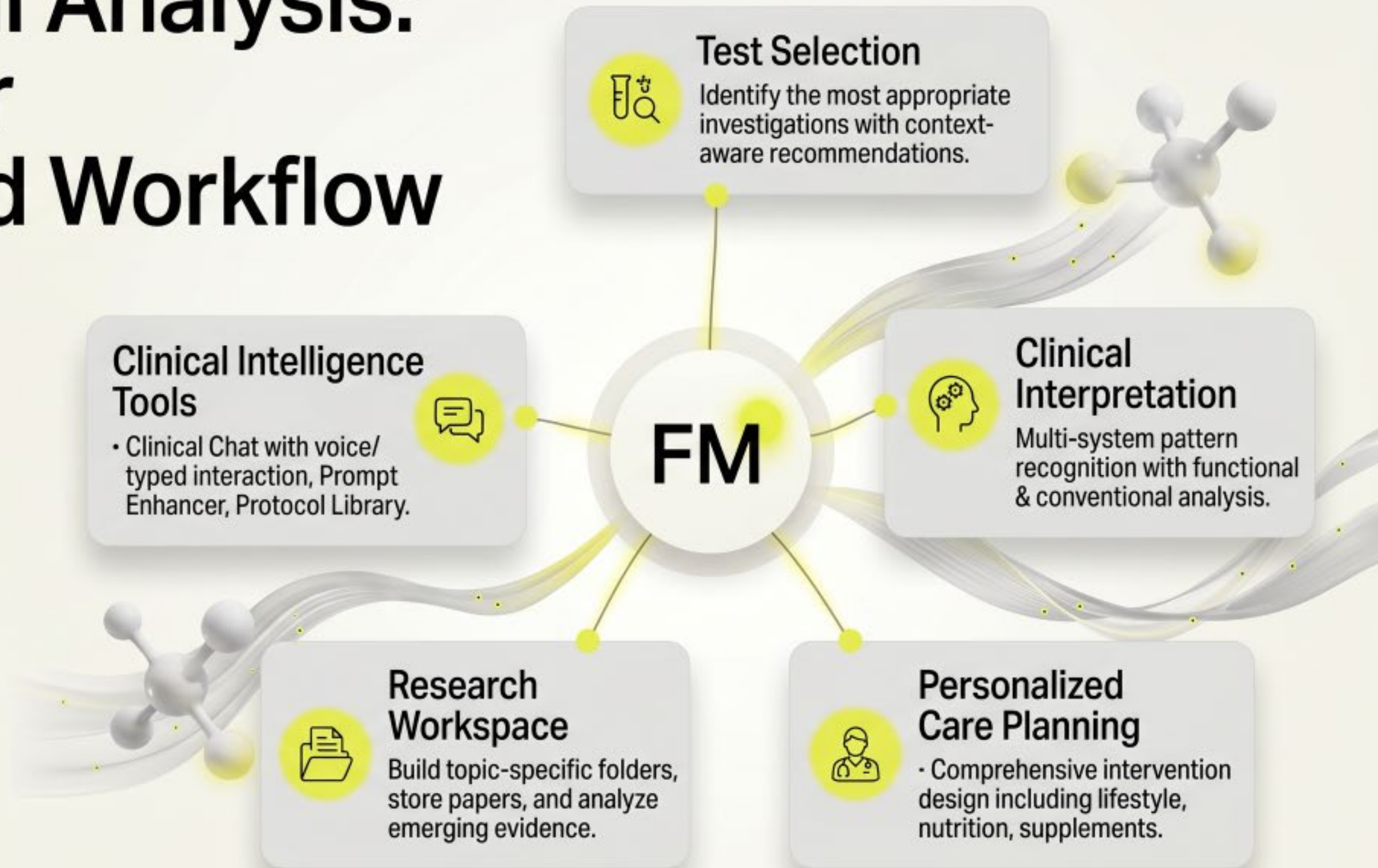
PATIENT COMPREHENSION & ACTION

Generates patient-friendly explanations, visual summaries, and clear action steps that bridge the gap from clinical complexity.



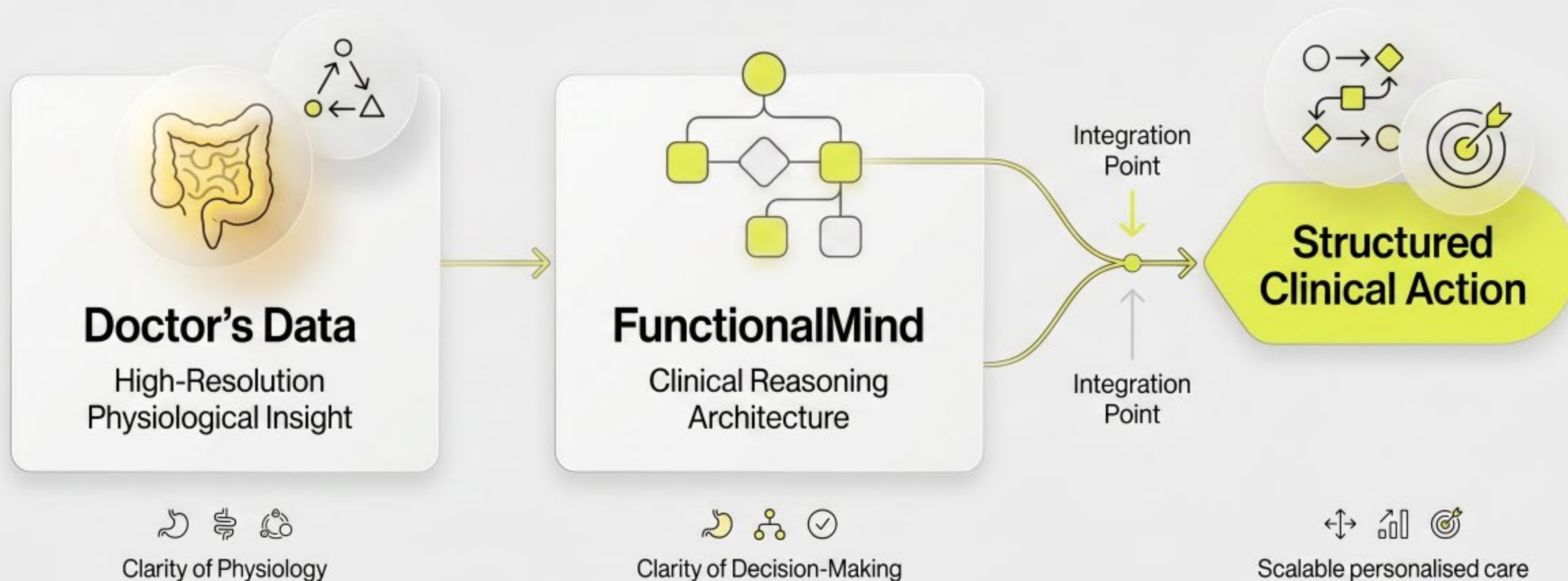
Beyond Clinical Analysis: Extending Your FunctionalMind Workflow

Our intelligence tools integrate directly into your existing workflow, turning complex data into clear, executable pathways.



From question → investigation → interpretation → intervention → patient communication → ongoing learning

Integrated Model of Doctor's Data and FunctionalMind



‘Better data alone does not guarantee better outcomes. Better thinking alone is difficult to scale. Structured integration of both is where modern clinical performance improves.’



Questions & Answers



Try FunctionalMind for free
No CC
Free to use, but limited per week
Membership available - unlimited

