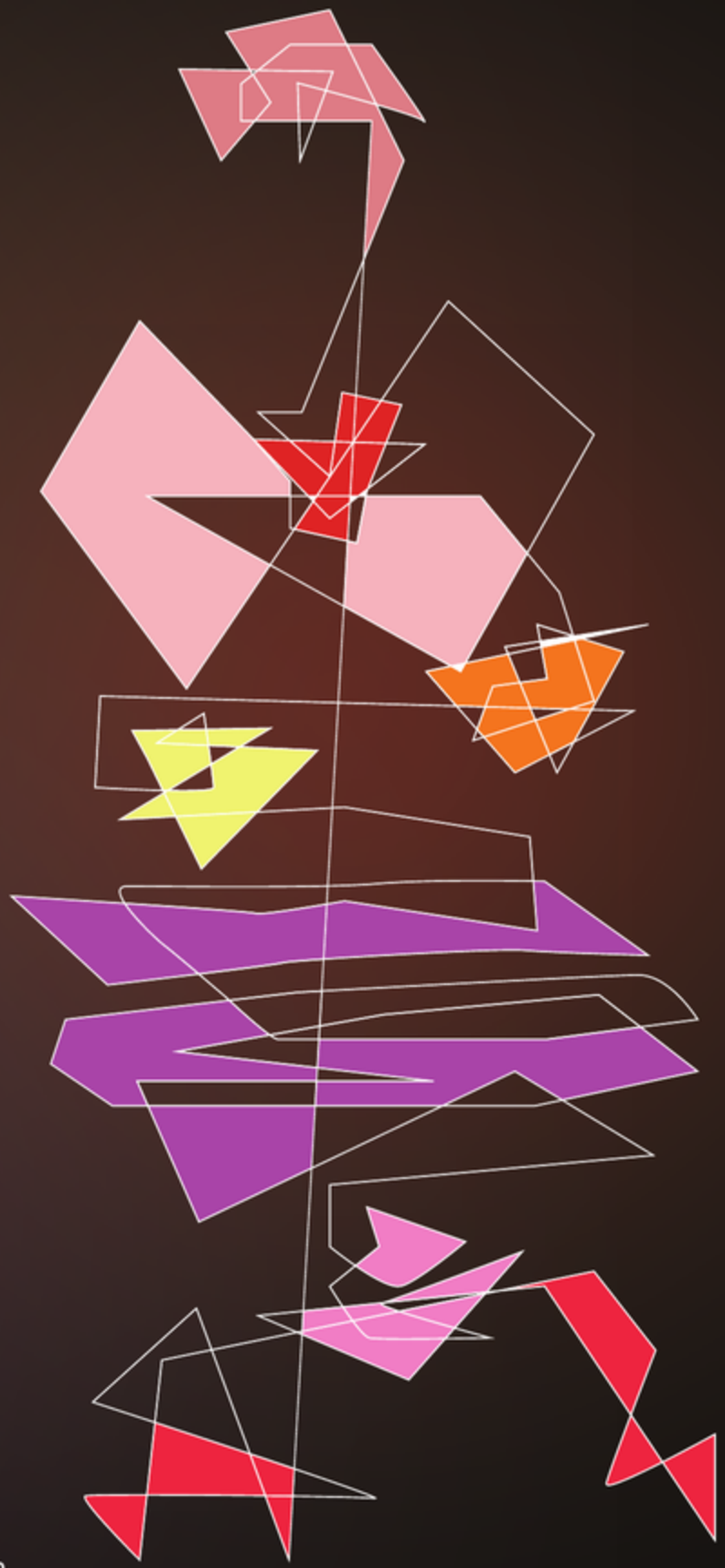
# organage

Organ Specific Longevity Insights



John Doe

May, 2026

Aging is a mosaic process. Each organ ages with its own speed — and that's where precision longevity begins.

cosmica biosciences

# Elevate Every System.

OrganAge™ is an organ-specific biological age assessment that measures how each of your body's major systems is aging relative to your chronological age.

Built on validated clinical biochemistry and AI models trained on 450,000+ individuals, OrganAge™ does more than evaluate biomarkers in isolation. It models how biomarkers interact across systems, capturing the complex biological relationships that drive aging.

By revealing which systems are aging faster or slower than expected, OrganAge™ identifies emerging vulnerabilities and optimization opportunities with organ level clarity, enabling targeted, proactive longevity strategies long before symptoms appear.

organage

## HOW AM I DOING?

Your OrganAge overview.


MOST RESILIENT

**Mental health**

-3 years

PRIMARY AGING DRIVER

**Lung health**

+13 years

SECONDARY CONTRIBUTOR

**Heart health**

+5 years

This snapshot identifies which systems are accelerating your aging and which are helping offset it — the foundation for the targeted, system-specific interventions outlined in this report.

## WHICH SYSTEMS CAN I START OPTIMIZING?

Three systems to optimize.

01 HIGH PRIORITY

### Lung health

+13 years older

Your lungs and airways are aging fastest. This is your top opportunity for optimization.

see action plan →

02 MODERATE PRIORITY

### Heart health

+5 years older

Your cardiovascular system is aging moderately faster than your chronological age.

see action plan →

03 WORTH ATTENTION

### Gut health

+3 years older

Your gastrointestinal system is mildly accelerated. Worth attention.

see action plan →

# What can I do next?

Three things you can do.

### 01 · START YOUR ACTION PLAN

Pick one food, one supplement, and one type of movement from your plan. Small, consistent changes compound — start there and build from there.

See plan →

### 02 · SHARE WITH YOUR CLINICIAN

Bring this report to your next visit. Your doctor can help interpret the biomarker data in the context of your full medical history.

### 03 · RE-TEST IN 6–12 MONTHS

OrganAge tracks change over time. See how your interventions move your biology.

organage.cosmicabio.com/retest

## YOUR ACTION PLAN

Why these recommendations? See the science →

### EAT

EAT MORE

**01 Highbush blueberry** ●●●

Supports brain health, improves memory, and has anti-inflammatory benefits.

Anthocyanins | Vitamin C | Vitamin K

**02 Sweet basil** ●●●

Contains anti-inflammatory and antimicrobial compounds; rich in antioxidants.

Vitamin K | Eugenol | Lutein

**03 Common sage** ●●●

May improve brain function and memory; has potent anti-inflammatory and antioxidant effects.

Rosmarinic acid | Carnosic acid | Vitamin K

### MOVE

START WITH 1

**01 Bodyweight HIIT Circuits** ●●●

Improves functional strength and cardiovascular fitness

10 2-min bouts with 1-min rest | High-Intensity Interval Training

**02 Cycling HIIT** ●●●

Maximizes cardiovascular gains in minimal time

10 2-min bouts with 1-min rest | High-Intensity Interval Training

**03 Rowing HIIT** ●●●

Develops full-body explosive power

10 2-min bouts with 1-min rest | High-Intensity Interval Training

### SUPPLEMENT

TAKE

**01 Corosolic acid** ●●●

A triterpenoid found in banaba leaf, used for blood sugar management.

Herbal & Plant Extracts | no standard dose

**02 N-Acetylglucosamine** ●●●

A form of glucosamine, used for joint health and gut health.

Carbohydrates & Fibers | 500-1,000 mg

**03 Guar gum** ●●●

A soluble fiber, used as a thickener, binder, and for digestive regularity and blood sugar control.

Carbohydrates & Fibers | 5-10 g

## CHOOSE LESS

Why these compounds? See the science →

### FOODS

REDUCE

The compounds in these foods are associated with biological functions that may work against the systems you are trying to optimize.

01 **Black tea** •••

02 **Green tea** •••

03 **Red tea** •••

04 **Herbal tea** •••

05 **Lettuce** •••

### SUPPLEMENTS

AVOID

These supplements are unlikely to support the systems you are trying to optimize.

01 **Manganese** •••

02 **Hydroxyproline** •••

03 **Chondroitin sulfate** •••

04 **Pectin** •••

full lists →

## ALL NINE SYSTEMS

Each panel below shows your biological age for one system, along with the difference from your chronological age. Each bar maps the result on a 20–90 year scale: the vertical mark is your chronological age, and the circle is the system's biological age.

### Mental health

65 **-3** vs chronological 68

20 YEARS 68 90

### Brain + nerve health

69 **+1** vs chronological 68

20 YEARS 68 90

### Lung health

81 **+13** vs chronological 68

20 YEARS 68 90

### Heart health

73 **+5** vs chronological 68

20 YEARS 68 90

### Immune health

68 **0** vs chronological 68

20 YEARS 68 90

### Muscle + bone health

66 **-2** vs chronological 68

20 YEARS 68 90

### Gut health

71 **+3** vs chronological 68

20 YEARS 68 90

### Metabolic health

67 **-1** vs chronological 68

20 YEARS 68 90

### Kidney health

66 **-2** vs chronological 68

20 YEARS 68 90

Younger than chronological · On par · Accelerated aging

## YOUR BIOMARKER FINGERPRINT

Your top 15 biomarker contributors, ranked by impact across all systems.

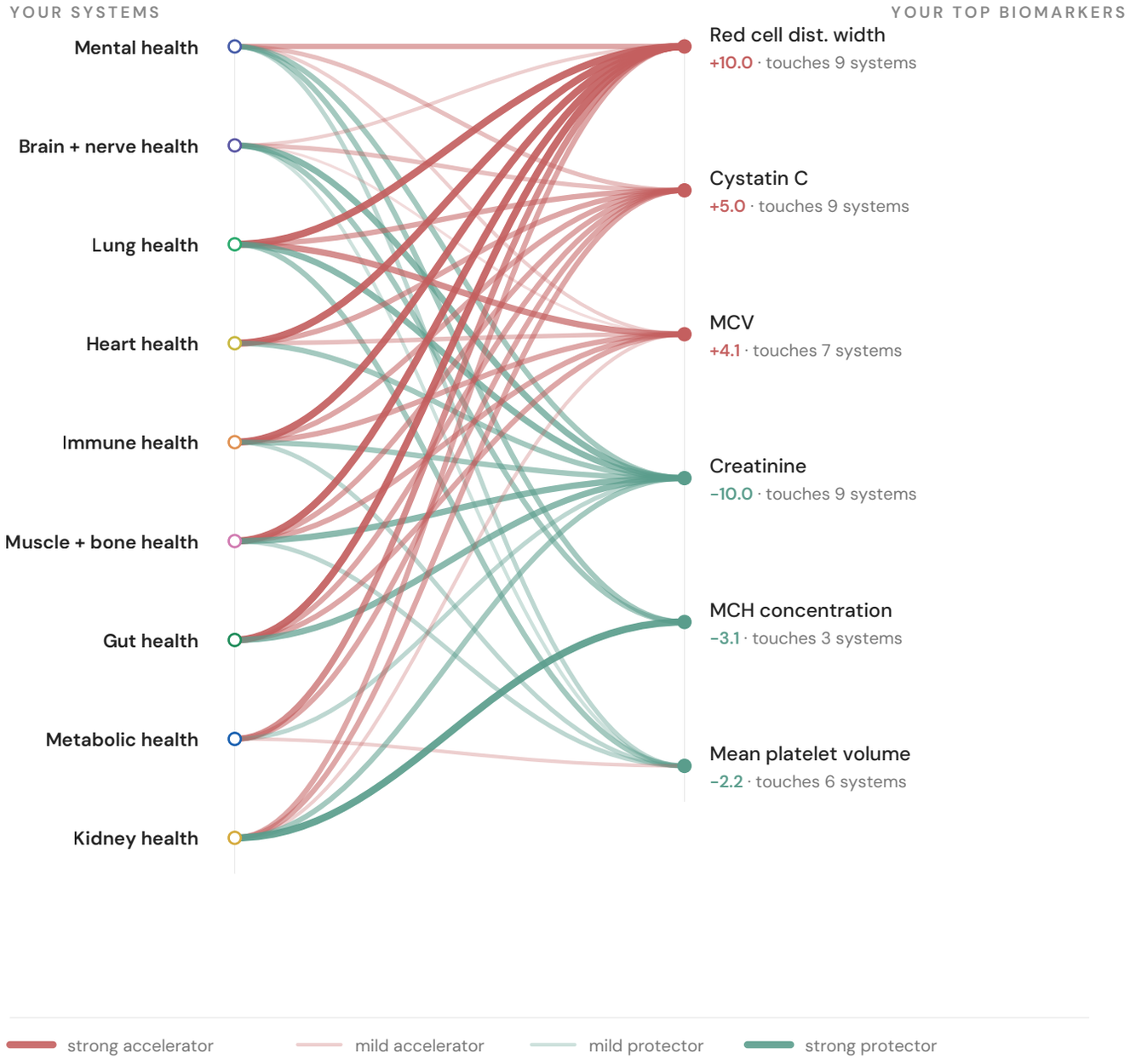

The color shows direction and strength of effect on each system.

strong accelerator | mild accelerator | no contribution | mild protector | strong protector

Showing your top 15 contributors. Remaining biomarkers, with smaller contributions, are listed in the glossary.

## YOUR BIOMARKER AND ORGANAGE INTERCONNECTIVITY

Each of your nine systems is shaped by many biomarkers.
See how the threads weave between them.




Line weight and opacity show how strongly each biomarker influences each system.

## FULL RECOMMENDATIONS

All options ranked by impact.

### EAT

| | | |
|---|---|---|
| 01 | **Highbush blueberry** | Supports brain health, improves memory, and has anti-inflammatory benefits. |
| 02 | **Sweet basil** | Contains anti-inflammatory and antimicrobial compounds; rich in antioxidants. |
| 03 | **Common sage** | May improve brain function and memory; has potent anti-inflammatory and antioxidant effects. |
| 04 | **Common thyme** | Contains thymol, which has strong antiseptic properties; traditionally used for respiratory support. |
| 05 | **Star fruit** | Good source of Vitamin C and antioxidants. (Should be avoided by individuals with kidney problems). |
| 06 | **Mandarin orange (Clementine, Tangerine)** | Rich in Vitamin C and antioxidants like flavonoids, which protect against cell damage. |
| 07 | **Common walnut** | An excellent source of plant-based omega-3s, which are crucial for brain health and reducing inflammation. |
| 08 | **Corn** | Provides energy and contains antioxidants like lutein and zeaxanthin, which are good for eye health. |

### MOVE

| | | |
|---|---|---|
| 01 | **Bodyweight HIIT Circuits** | Improves functional strength and cardiovascular fitness |
| 02 | **Cycling HIIT** | Maximizes cardiovascular gains in minimal time |
| 03 | **Rowing HIIT** | Develops full-body explosive power |
| 04 | **Running HIIT** | Dramatically improves speed and running economy |
| 05 | **Swimming HIIT** | Maximum cardiovascular benefit with zero impact |
| 06 | **Brisk Walking** | Highly accessible and reduces risk of chronic disease |
| 07 | **Cycling** | Excellent cardiovascular conditioning |
| 08 | **Elliptical Training** | Low-impact cardiovascular workout |

### SUPPLEMENT

| | | |
|---|---|---|
| 01 | **Corosolic acid** | A triterpenoid found in banaba leaf, used for blood sugar management. |
| 02 | **N-Acetylglucosamine** | A form of glucosamine, used for joint health and gut health. |
| 03 | **Guar gum** | A soluble fiber, used as a thickener, binder, and for digestive regularity and blood sugar control. |
| 04 | **Arginine hydrochloride** | A salt form of arginine, used for nitric oxide production, vasodilation, and athletic performance. |

## YOUR PANEL, EXPLAINED

Every number in your results is a signal from your body. Here's what each one is telling you — and why it matters for how you age.

### BLOOD & IMMUNE CELLS

**White blood cell (WBC) count**
Measures overall immune cell levels. Elevated counts may indicate infection or inflammation, while low counts may reflect immune suppression.

**Red blood cell (RBC) count**
Measures the number of oxygen-carrying cells in the blood. Essential for energy levels and tissue oxygenation.

**Hemoglobin**
The protein in red blood cells that carries oxygen. It reflects oxygen delivery capacity and overall blood health.

**Platelet count**
Reflects the number of platelets involved in blood clotting. Abnormal levels may indicate bleeding risk or inflammation.

**Lymphocyte count**
A type of white blood cell central to immune defense. Levels reflect immune system strength and adaptability.

**Lymphocyte percentage**
The proportion of lymphocytes among white blood cells. Helps assess immune system balance.

**Neutrophil count**
A primary immune cell responsible for fighting infections. Elevated levels often reflect acute inflammation or stress.

**Neutrophil percentage**
The proportion of neutrophils among white blood cells. Helps assess immune response dynamics.

**Monocyte count**
A white blood cell involved in immune defense and inflammation. Elevated levels may indicate chronic inflammation or infection.

**Monocyte percentage**
The proportion of monocytes in the blood. Provides additional context for immune system activity.

**Eosinophil count**
A white blood cell involved in immune defense, particularly in allergic and parasitic responses. Elevated levels may indicate immune activation.

**Eosinophil percentage**
The proportion of eosinophils in the blood. Provides additional insight into immune system balance and inflammatory states.

**Basophil count**
A type of white blood cell involved in immune responses and inflammation. Elevated levels may reflect allergic or inflammatory activity.

**Basophil percentage**
The proportion of basophils among total white blood cells. Helps contextualize immune system balance and inflammatory signaling.

### RED CELL MORPHOLOGY

**Mean corpuscular volume (MCV)**
Indicates the average size of red blood cells. Changes can reflect nutrient deficiencies or underlying metabolic conditions.

**Mean corpuscular Hb concentration (MCHC)**
Measures the concentration of hemoglobin in red blood cells. Abnormal levels can indicate issues with oxygen transport or red blood cell integrity.

**Red cell distribution width (RDW)**
Indicates variation in red blood cell size. Higher variability is associated with inflammation, aging, and chronic disease risk.

**Mean platelet volume (MPV)**
Measures the size of platelets, which are involved in clotting and inflammation. Larger platelets are often more active and linked to cardiovascular risk.

## BIOMARKER GLOSSARY · CONTINUED

### LIVER & DETOXIFICATION

**Albumin**
A protein made by the liver that reflects nutritional status and overall health. Low levels can indicate inflammation, liver dysfunction, or poor recovery capacity.

**Alkaline phosphatase (ALP)**
An enzyme linked to liver and bone health. Elevated levels may signal liver stress, bile duct issues, or increased bone turnover.

**ALT (SGPT)**
A liver enzyme that increases when liver cells are damaged. It is a key marker of liver health and metabolic stress.

**AST (SGOT)**
An enzyme found in the liver, heart, and muscles. Elevated levels can indicate tissue damage or systemic stress beyond just the liver.

**Bilirubin (total)**
A byproduct of red blood cell breakdown processed by the liver. Abnormal levels can indicate liver dysfunction or impaired detoxification.

**Total protein**
Represents the total amount of protein in the blood, including albumin and globulins. Reflects nutritional status and immune function.

### KIDNEY FUNCTION & AGING

**Creatinine**
A waste product from muscle metabolism used to assess kidney function. Stable levels indicate efficient filtration and metabolic health.

**Cystatin C**
A sensitive marker of kidney function and biological aging. Elevated levels are associated with reduced filtration capacity and increased disease risk.

### METABOLIC & CARDIOVASCULAR

**Fasting glucose**
Measures blood sugar levels after fasting. Elevated levels are a key indicator of metabolic dysfunction and insulin resistance.

**HDL-C**
Often called good cholesterol, it helps remove excess cholesterol from the bloodstream. Higher levels are associated with cardiovascular protection.

**LDL-C (direct)**
Often referred to as bad cholesterol, it contributes to plaque buildup in arteries. Elevated levels increase cardiovascular risk.

**Triglycerides**
A type of fat in the blood used for energy storage. Elevated levels are linked to metabolic dysfunction and cardiovascular risk.

**hs-CRP**
A highly sensitive marker of systemic inflammation. Elevated levels are linked to increased risk of cardiovascular and chronic diseases.

**Calcium (total)**
Essential for bone health, muscle function, and nerve signaling. Imbalances may reflect metabolic, hormonal, or kidney-related issues.

**IGF-1**
A hormone involved in growth and cellular repair. It plays a role in aging, with both low and high levels having health implications.

## HOW YOUR PLAN WAS MADE

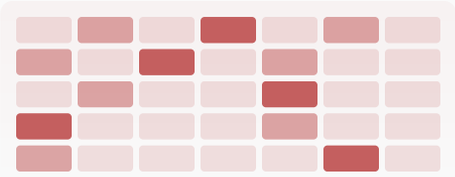
Two people with the same accelerated system can still need different foods, supplements, and movement. Here's how we got from your single blood draw to a plan that's specific to your body.

1

YOUR BLOOD → YOUR SIGNALS

### We start with 35 signals from your blood.

Your sample carries dozens of small clues — **cholesterol, immune cells, kidney filters, inflammation markers.** On their own, each is just a number. Together, they're a snapshot of how your body is running today.



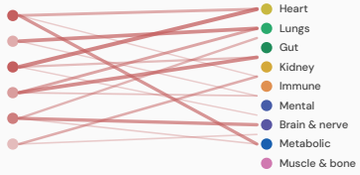
**35** BLOOD SIGNALS

2

YOUR SIGNALS → YOUR SYSTEMS

### We trace each signal to the systems it affects.

Each blood signal pulls weight on different organ systems — your heart, your lungs, your metabolism, and six more. The pattern of **your** off-target signals tells us which systems are aging faster than the rest.




**35** SIGNALS → **9** SYSTEMS

3

YOUR SYSTEMS → YOUR GENES

### Inside each system, thousands of genes shift as we age.

Every cell runs on its genes — **some get louder, some get quieter** as a system ages. We've mapped which genes shift inside each of your nine systems, so we know exactly which ones are off-pattern for **you**.

TOO LOUD TOO QUIET

4

YOUR GENES → YOUR PLAN

### We match foods, movement, and supplements to your genes.

From a library of **800 foods, 400 supplements, and 18 forms of exercise** — each one studied for the genes it shifts — we pick the ones that bring **your** off-pattern genes back into balance.

**Organ-specific insights, tailored to your biomarker fingerprint.**

**5 yrs** IN DEVELOPMENT

**450K+** UK BIOBANK · NIH HRS

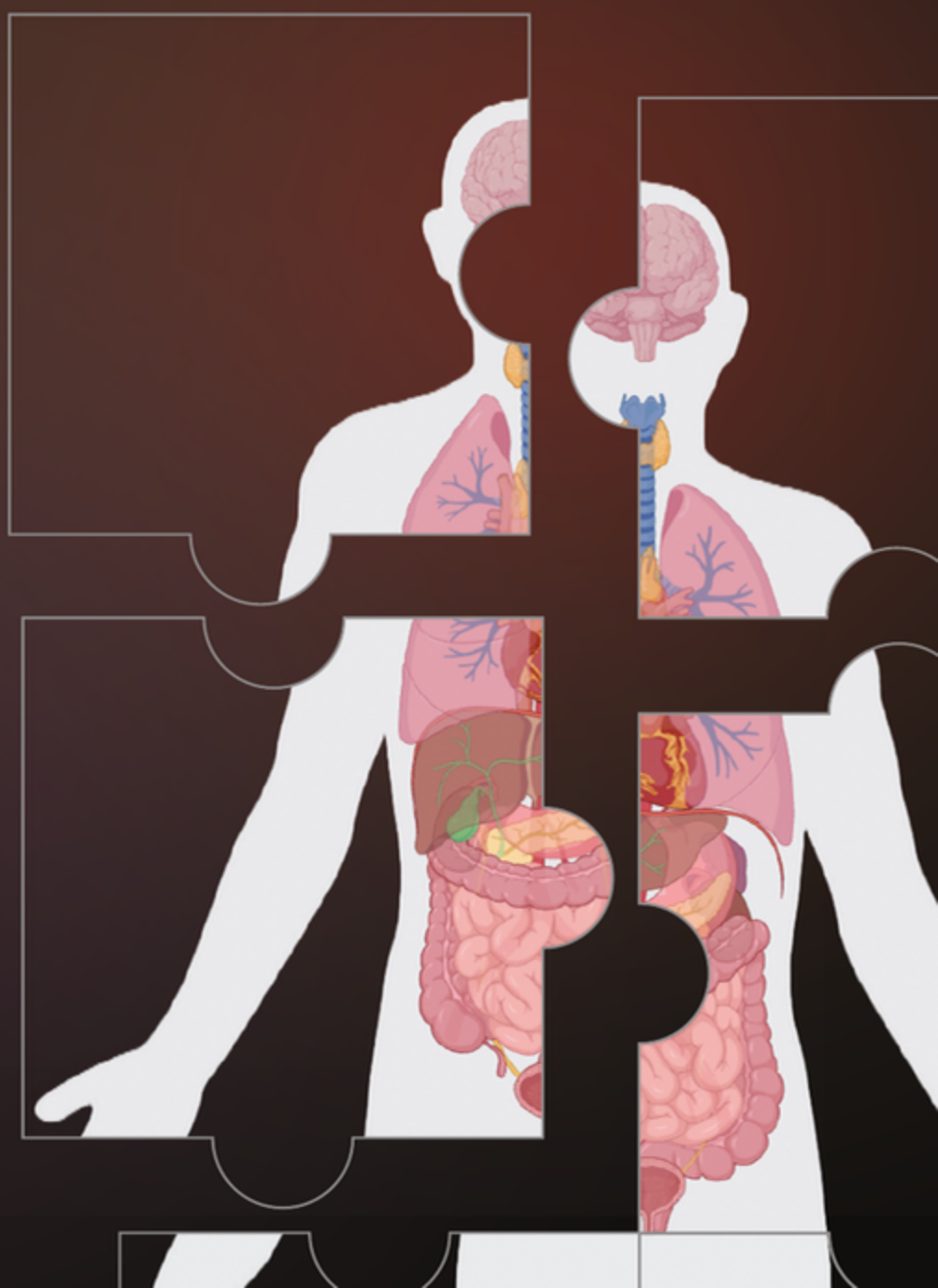

TUNED TO **YOUR** GENE PATTERN

FIRST OF ITS KIND

**You're holding a plan tuned to the genes inside your blood. Nobody else on Earth has this one.**

"OrganAge gives us a clearer view of how each organ system ages, empowering truly targeted interventions. By moving beyond a single biological age, we can identify vulnerabilities earlier and act more precisely. This marks a meaningful step toward proactive, personalized longevity care."

***- Dr. David Furman***



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