

ASCENDA LABS

SCIENCE | PRECISION | LONGEVITY

ELITE MEOP™

MITO-EPIGENETIC
OPTIMIZATION
PROTOCOL

ADVANCED PRECISION
LONGEVITY ARCHITECTURE

DMD, FAGD, FICOI, FICCMO, LVIF,
FAACFP, MICCMO

RECONSTRUCTIVE DENTAL SURGEON
SCIENTIFIC ADVISOR
LONGEVITY EXPERT

“My long term goal is to be more knowledgeable, healthier, stronger more metabolically flexible at 75 than I am at 65 that will only happen by continuing to improve my MEOPs tracking my biometrics in a dynamic consistent fashion.”

ELITE LEVEL

THE HIGHEST STANDARD OF
PHYSIOLOGICAL OPTIMIZATION
& HUMAN PERFORMANCE



PHYSIOLOGICAL & LONGEVITY PROFILE

ESTABLISHING YOUR BASELINE FOR PRECISION OPTIMIZATION

CHRONOLOGICAL AGE

65

years

BIOLOGICAL AGE
(DNA METHYLATION)

39.7

years

-25.3

YEARS

Biological age is 25.3 years younger than chronological age.



HEIGHT

5'11"

181 cm



WEIGHT

182.5 lbs

85.1 kg



VO₂ MAX

60.3

mL/kg/min



GRIP STRENGTH

RH 166 lbs

LH 165 lbs



BREATH HOLD

2:07

seconds



BOLT SCORE

52

seconds



TRAINING FREQUENCY

6 days per week



Zone 2 Cardiovascular Conditioning



Plyometrics



Heavy Resistance Training

WHAT THIS PROFILE INDICATES

Your data demonstrates exceptional physiological capacity and a highly favorable biological age profile.

- ✓ Substantially younger biological age via DNA methylation
- ✓ High cardio-respiratory fitness (VO₂ Max)
- ✓ Excellent muscular strength (Grip Strength)
- ✓ Strong breath-hold and CO₂ tolerance (BOLT Score)
- ✓ Consistent high-level training regimen

This baseline provides a powerful foundation for targeted metabolic, regenerative, and performance optimization.

PHASE 1A

COMPREHENSIVE BIOMARKER
& BIOLOGICAL AGE ASSESSMENT

ESTABLISHING THE SCIENTIFIC BASELINE FOR PRECISION LONGEVITY

A multi-system evaluation of metabolic, hormonal, cardiovascular, inflammatory, genetic and performance biomarkers provides the foundation for precision optimization.

DNA METHYLATION AGE



39.7

YEARS

BIOLOGICAL AGE
25.3 YEARS YOUNGER
THAN CHRONOLOGICAL AGE

BIOMARKER DOMAINS



METABOLIC

- Fasting Glucose
- Insulin, HOMA-IR
- HbA1c
- Lipid Panel
- ApoB / LDL-P
- hs-CRP
- Uric Acid



CARDIOVASCULAR

- Apolipoprotein B
- Lipoprotein(a)
- Homocysteine
- hs-CRP
- NT-proBNP
- Arterial Health Markers
- VO₂ Max (60.3 ml/kg/min)



ENDOCRINE

- Total / Free Testosterone
- SHBG
- DHEA-S
- IGF-1
- Cortisol (AM)
- Estradiol
- Thyroid Panel



INFLAMMATORY

- hs-CRP
- IL-6
- TNF-α
- Fibrinogen
- Oxidative Stress Panel
- Immune Cell Profiling



HEMATOLOGICAL

- Complete Blood Count
- RBC / Hematocrit
- WBC Differential
- Platelets
- Iron Studies
- Ferritin



NUTRITIONAL

- Vitamin D (25-OH)
- Vitamin B12
- Folate (RBC)
- Magnesium (RBC)
- Zinc / Copper
- Selenium
- Omega-3 Index



EPIGENETIC

- DNA Methylation (Age)
- CpG Island Analysis
- Oral DNA PCR
- Telomere Length
- Epigenetic Risk Score



PERFORMANCE

- VO₂ Max: 60.3 ml/kg/min
- Grip Strength:
RH 166 lbs | LH 165 lbs
- Breath Hold: 2:07
- BOLT Score: 52 sec
- Body Composition (DEXA)
- Lactate Threshold

BASELINE SUMMARY



39.7

DNA METHYLATION
AGE

BIOLOGICALLY OPTIMIZED



60.3

VO₂ MAX

EXCELLENT CARDIORESPIRATORY
FITNESS



166 / 165

GRIP STRENGTH (LBS)

EXCELLENT MUSCULAR
PERFORMANCE



2:07

BREATH HOLD

SUPERIOR CO₂
TOLERANCE



52 sec

BOLT SCORE

HIGH PHYSIOLOGICAL
RESILIENCE

WHY THIS MATTERS

This comprehensive baseline allows for precise protocol personalization, tracking of biological age changes, and data-driven decision making throughout the ELITE MEOP™ optimization journey.



OBJECTIVE
MEASUREMENT



DATA-DRIVEN
ADAPTATION



PERSONALIZED
OPTIMIZATION



MEASURABLE
OUTCOMES

PHASE 1B

METABOLIC & MITOCHONDRIAL OPTIMIZATION

Weeks 1–6 | Establishing the Optimal Biological Terrain

This phase optimizes mitochondrial function, metabolic efficiency, and cellular energy production while reducing inflammatory burden and improving systemic metabolic flexibility. It creates the ideal foundation for downstream regenerative and performance pathways.



FUNCTIONAL EMPHASIS



Mitochondrial Membrane Stabilization



AMPK Activation



NAD⁺ Pathway Support



Insulin Sensitivity Enhancement



Fat Oxidation & Metabolic Flexibility



Inflammatory Load Reduction

SYSTEM ROLE

Improves ATP production, increases oxidative fiber utilization, enhances metabolic efficiency, and reduces systemic strain on aging mitochondria. It establishes optimal terrain for downstream regenerative and anabolic signaling.

PRIMARY RESEARCH COMPOUNDS



SS-31
10 MG

SS-31 (Elamipretide)
Targets cardiolipin to stabilize mitochondrial membranes and improve electron transport.

Enhances mitochondrial efficiency and protects against oxidative stress.



MOTS-C
10 MG

MOTS-C
Mitochondrial-derived peptide that activates AMPK and supports metabolic adaptation.

Improves insulin sensitivity and metabolic flexibility.



RETA-X
10 MG

Retatrutide
Multi-agonist (GLP-1, GIP, Glucagon) that improves glucose control and promotes fat loss.

Enhances metabolic health and body composition.



5-Amino-1MQ
1 MG

5-Amino-1MQ
NAD⁺ precursor that supports NAD⁺ biosynthesis and mitochondrial respiration.

Boosts cellular energy and mitochondrial function.



SLU-PP-322
5 MG

SLUPP-32X (SLU-PP-322)
Novel compound that enhances mitochondrial ATP production and biogenesis.

Improves endurance, recovery, and cellular energy capacity.



KPV
10 MG

KPV
Anti-inflammatory peptide that modulates immune response and gut barrier integrity.

Reduces inflammation and supports metabolic homeostasis.

METABOLIC OPTIMIZATION PATHWAYS



FOR RESEARCH & DEVELOPMENT PURPOSES ONLY

All products supplied by Ascenda Labs are intended solely for legitimate laboratory research and development purposes. These materials are not manufactured, formulated, or approved for human consumption, clinical use, diagnostic procedures, therapeutic applications, or any form of medical treatment.

PHASE 1B

HORMONAL & EPIGENETIC RESET

OPTIMIZING SIGNALING, BALANCE & GENE EXPRESSION

This phase focuses on hormonal optimization and epigenetic modulation to restore regulatory balance, enhance cellular resilience, and activate protective longevity pathways.

“

Longevity is not just about living longer—it is about optimizing the biology of living.

— DR. ANDREW J. M. WILLOUGHBY

KEY OBJECTIVES

Optimize endocrine balance and hormone signaling

Modulate epigenetic markers and gene expression

Enhance stress resilience and adaptive capacity

Promote mitochondrial biogenesis and cellular repair

Establish optimal internal regulatory set points

CORE OPTIMIZATION PATHWAYS

HORMONAL BALANCE

Optimize sex steroids, thyroid, cortisol rhythm, and growth hormone axis.

EPIGENETIC MODULATION

Influence DNA methylation, histone activity, and microRNA expression.

CELLULAR STRESS RESILIENCE

Activate NRF2, HSP pathways, and antioxidant defense systems.

MITOCHONDRIAL FUNCTION

Increase ATP production, mitochondrial biogenesis, and membrane integrity.

REPAIR & ADAPTATION

Enhance DNA repair, autophagy, and proteostasis mechanisms.

PRIMARY RESEARCH COMPOUNDS

COMPOUND

DOSE

MECHANISM OF ACTION

FOCUS AREA

EPITALON

25 U
3x / week

Telomerase activator that supports telomere length maintenance and cellular longevity.

Epigenetic Longevity

VILON

25 U
3x / week

Supports immune modulation, DNA repair, and reduces inflammatory signaling.

Immune & Stress Resilience

HEXARELIN

25 U
3x / week

Growth hormone secretagogue that enhances recovery, sleep quality, and body composition.

Hormonal Optimization

THYMOSIN β4

25 U
3x / week

Promotes tissue repair, angiogenesis, and reduces inflammation.

Tissue Repair & Regeneration

KEY BIOMARKER TARGETS

Total Testosterone

↑

Free T3 / Free T4

↑

DHEA-S

↑

IGF-1

↑

Cortisol (AM)

↓

hs-CRP

↓

Telomere Length

↑

DNA Methylation Age

↓

NRF2 Activity

↑

HSP70 Levels

↑

PHASE 1B OUTCOMES

Balanced hormones. Resilient systems.
Activated longevity pathways.
Prepared for peak performance.

Hormonal Equilibrium

Epigenetic Optimization

Enhanced Resilience

Mitochondrial Activation

Longevity Foundation

PHASE 2

REGENERATION & CELLULAR RENEWAL

ACTIVATING REPAIR, STEM CELL SIGNALING & TISSUE REJUVENATION

This phase focuses on activating endogenous repair mechanisms, enhancing stem cell and growth factor signaling, and promoting tissue regeneration to improve structure, function, and vitality.

“

The body has an innate intelligence to heal—our role is to create the optimal environment for it to do so.

– DR. ANDREW J. M. WILLOUGHBY

KEY OBJECTIVES

Stimulate stem cell activity and tissue regeneration

Enhance growth factor and peptide signaling

Support collagen synthesis, ECM integrity, and tissue repair

Improve organ, muscle, and connective tissue function

Accelerate recovery, reduce injury, and improve resilience

CORE REGENERATION PATHWAYS

STEM CELL ACTIVATION

Mobilize and activate endogenous stem cells to support tissue turnover and regeneration.

GROWTH FACTOR SIGNALING

Enhance production of IGF-1, VEGF, and other growth factors to promote repair and angiogenesis.

EXTRACELLULAR MATRIX (ECM) REPAIR

Support collagen, elastin, and ECM remodeling for structural integrity and elasticity.

MITOCHONDRIAL BIOGENESIS

Increase mitochondrial number and efficiency to support energy, recovery, and tissue regeneration.

ANTI-INFLAMMATORY RECOVERY

Modulate inflammation and oxidative stress to create a healing-favorable cellular environment.

PRIMARY RESEARCH COMPOUNDS					
	COMPOUND	DOSE	FREQUENCY	MECHANISM OF ACTION	FOCUS AREA
	BPC-157	250 mcg	Daily	Promotes angiogenesis, tendon/ligament repair, and gastrointestinal healing.	Tissue Repair & Protection
	TB-500	2 mg	2x / week	Enhances cell migration, angiogenesis, and tissue regeneration.	Regeneration & Recovery
	GHK-Cu	2 mg	Daily	Stimulates collagen synthesis, wound healing, and anti-inflammatory pathways.	Skin, Hair & Connective Tissue
	IGF-1 LR3	20 U	3x / week	Promotes muscle growth, tissue repair, and cellular regeneration.	Growth & Anabolism
	FOLLISTATIN	30 U	3x / week	Inhibits myostatin to support muscle growth, hypertrophy, and strength improvements.	Muscle Growth & Strength
	NANOMATRIX™	As Directed	Daily	Nano-metallic silver oxide supports wound healing up to 548% and antimicrobial defense.	Wound Healing & Protection

Doses are general guidelines. Individualization based on clinical assessment and monitoring is essential.

REGENERATION BIOMARKERS

Targeted improvements typically observed:

↑ IGF-1

↑ VEGF

↑ Collagen Production

↑ Tissue Healing Markers

↑ Muscle Mass & Strength

↓ hs-CRP

↓ Oxidative Stress

↓ Biological Age (Epigenetic)

TISSUE SYSTEMS IMPACTED

JOINTS & TENDONS

MUSCLE TISSUE

SKIN & DERMIS

VASCULAR SYSTEM

GASTROINTESTINAL SYSTEM

NERVOUS SYSTEM

PHASE 2 OUTCOMES

✓ Enhanced tissue repair and accelerated recovery.

✓ Improved structural integrity, strength, and vitality.

✓ Activated regenerative pathways for long-term resilience.

FOUNDATION FOR PEAK PERFORMANCE

Phase 2 builds the biological infrastructure required to support higher levels of performance, longevity, and quality of life.

PHASE 3

PERFORMANCE, RESILIENCE & LONGEVITY ACTIVATION

ENHANCING ADAPTIVE CAPACITY,
CIRCADIAN HARMONY & LONGEVITY PATHWAYS

This phase focuses on maximizing physical and cognitive performance, strengthening stress resilience, optimizing circadian biology, and activating proven longevity pathways to extend healthspan.

“

Longevity is earned through daily choices that compound for a lifetime.

– DR. ANDREW J. M. WILLOUGHBY

KEY OBJECTIVES

Maximize physical performance and endurance

Enhance cognitive function and mental clarity

Optimize circadian rhythm and sleep quality

Strengthen stress resilience and neuroprotection

Activate longevity pathways and extend healthspan

CORE LONGEVITY ACTIVATION PATHWAYS

CIRCADIAN OPTIMIZATION

Align biological rhythms to improve sleep, hormone secretion, and metabolic health.

COGNITIVE ENHANCEMENT

Support neurogenesis, synaptic plasticity, and neurotransmitter balance for peak cognitive function.

PERFORMANCE AMPLIFICATION

Increase aerobic capacity, strength, endurance, and recovery for elite performance.

STRESS RESILIENCE & ADAPTATION

Enhance HPA axis balance and build resilience to physical, emotional, and environmental stress.

MITOCHONDRIAL UPREGULATION

Boost mitochondrial biogenesis, dynamics, and efficiency for sustained cellular energy production.

LONGEVITY PATHWAYS

Activate sirtuins, AMPK, autophagy, and telomere protection for long-term vitality.

PRIMARY RESEARCH COMPOUNDS

	COMPOUND	DOSE	FREQUENCY	MECHANISM OF ACTION	FOCUS AREA
	MOTS-c	25 U	3x / week	Improves mitochondrial function, insulin sensitivity, and exercise capacity.	Metabolic Adaptation
	SS-31	25 U	3x / week	Cardiolipin stabilizer that protects mitochondria and improves cellular energy.	Mitochondrial Protection
	AOD-9604	30 U	3x / week	Supports fat metabolism, angiogenesis, and tissue repair.	Fat Metabolism & Recovery
	TA-65®	25 U	3x / week	Activates telomerase to support telomere length and cellular longevity.	Telomere Support
	NANOMATRIX™	As Directed	Daily	Nano-metallic silver oxide supports wound healing up to 548% and antimicrobial defense.	Wound Healing & Immunity
	GLUTATHIONE	74 U x 30 days, then 100 U weekly	Daily, then Weekly	Master antioxidant that supports detoxification, immune function, and reduces oxidative stress.	Detox & Antioxidant

LONGEVITY BIOMARKERS IMPACTED

VO₂ Max

Grip Strength

HRV (RMSSD)

Sleep Efficiency

BOLT Score

Telomere Length

NRF2 Activity

Autophagy Markers (LC3-II)

IGF-1

Inflammatory Markers (hs-CRP, IL-6)

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SYSTEMS ENHANCED

CARDIOVASCULAR

BRAIN & NERVOUS SYSTEM

IMMUNE SYSTEM

MUSCULAR SYSTEM

CIRCADIAN RHYTHM

CELLULAR ENERGY

AGING & LONGEVITY

GENOMIC STABILITY

OVERALL VITALITY

Doses are general guidelines. Individualization based on clinical assessment and monitoring is essential.

PHASE 3 OUTCOMES

✓

Optimized performance and endurance.

✓

Enhanced cognitive clarity and focus.

✓

Improved sleep quality and circadian alignment.

✓

Increased stress resilience and recovery.

✓

Activation of longevity pathways for extended healthspan.

THE RESULT

Phase 3 creates the conditions for peak human performance, exceptional resilience, and long-term longevity by aligning biology, environment, and behavior with your highest potential. This is where science meets lifestyle to build a life of strength, purpose, and lasting vitality.

PHASE 4

IMMUNE MASTERY & INFLAMMATION CONTROL

CALMING INFLAMMATION, STRENGTHENING IMMUNITY & ENHANCING SYSTEMIC DEFENSE

This phase targets chronic inflammation and immune dysregulation—central drivers of aging and disease. By restoring immune balance and strengthening host defense, we create an internal environment where healing, performance, and longevity can thrive.



“

An optimized immune system is the foundation of resilience, recovery, and long-term vitality.

— DR. ANDREW J. M. WILLOUGHBY

KEY OBJECTIVES



Reduce systemic inflammation and oxidative stress



Rebalance immune response and cytokine signaling



Support gut-immune axis and barrier integrity



Enhance innate and adaptive immune function



Promote immune resilience and healthy aging

CORE IMMUNE OPTIMIZATION PATHWAYS



INFLAMMATION REDUCTION

Lower chronic inflammation and oxidative burden at the root.



IMMUNE BALANCE

Regulate immune activation and support a balanced TH1/TH2/TH17 response.



GUT & BARRIER SUPPORT

Strengthen gut barrier integrity and reduce leaky gut-driven inflammation.



CYTOKINE MODULATION

Optimize cytokine signaling for healing, not harm.



MITOCHONDRIAL PROTECTION

Protect immune cell mitochondria to sustain energy and function.



IMMUNE RESILIENCE

Build long-term resilience against infections, stress, and disease.

PRIMARY RESEARCH COMPOUNDS

COMPOUND	DOSE	FREQUENCY	MECHANISM OF ACTION	FOCUS AREA
 THYMOSIN β4	25 U	3x / week	Promotes tissue repair, angiogenesis, and regulates inflammation.	 Tissue Repair & Immunity
 EPITALON	25 U	3x / week	Supports telomere maintenance and modulates immune aging.	 Cellular Longevity
 BPC-157	250 mcg	Daily	Potent anti-inflammatory and healing peptide; supports gut and musculoskeletal repair.	 Gut & Tissue Repair
 GHK-Cu	2 mg	Daily	Enhances wound healing, modulates inflammation, and supports ECM.	 Inflammation Control
 NANOMATRIX™	As Directed	Daily	Nano-metallic silver oxide supports antimicrobial defense and reduces inflammatory load.	 Antimicrobial Defense
 TA-65®	25 U	3x / week	Telomerase activator that supports immune cell regeneration.	 Telomere Support
 GLUTATHIONE	74 U x 30 days, then 100 U weekly	Daily, then Weekly	Master antioxidant that reduces oxidative stress and supports immune function.	 Detox & Antioxidant

IMMUNE & INFLAMMATION BIOMARKERS

Targeted improvements typically observed:

hs-CRP

IL-6

TNF-α

IL-1β

Oxidative Stress Markers (8-OHdG)

Gut Permeability Markers (Zonulin)

Total WBC / Lymphocytes

Secretory IgA

NK Cell Activity

T Cell Function

↓

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SYSTEMS STRENGTHENED

 IMMUNE SYSTEM

 INFLAMMATORY RESPONSE

 GUT INTEGRITY

 RESPIRATORY DEFENSE

 ANTIMICROBIAL DEFENSE

 RECOVERY & HEALING

 CELLULAR ENERGY

 NEUROIMMUNE BALANCE

 LONGEVITY SIGNALING

Doses are general guidelines. Individualization based on clinical assessment and monitoring is essential.

PHASE 4 OUTCOMES



✓ Significant reduction in inflammation and oxidative stress.

✓ Balanced immune response and improved cytokine profile.

✓ Strengthened gut barrier and improved microbiome resilience.

✓ Enhanced immune defense and resistance to illness.

✓ Foundation for long-term healthspan and disease prevention.



THE FOUNDATION OF RESILIENCE

By controlling inflammation and empowering the immune system, Phase 4 ensures the body is protected, resilient, and ready to sustain the benefits of all other phases. This is where longevity becomes truly achievable.

All compounds are for laboratory research purposes only. Not for human consumption.

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PHASE 5

ADVANCED
REGENERATIVE
THERAPIES

AMPLIFYING REPAIR, REGENERATION
& LONGEVITY POTENTIAL

This phase introduces advanced regenerative modalities and cutting-edge compounds to accelerate tissue renewal, enhance stem cell activity, and optimize healing at a cellular and organ system level.

“

Regeneration is not a dream of the future— it is a science we activate today.

— DR. ANDREW J. M. WILLOUGHBY

KEY OBJECTIVES

Accelerate tissue regeneration and stem cell activation

Enhance angiogenesis and cellular repair

Improve organ function and structural integrity

Support recovery, reduce downtime, and build resilience

Maximize performance, vitality, and healthspan

CORE REGENERATIVE PATHWAYS

STEM CELL ACTIVATION

Stimulate endogenous stem cells to regenerate and replace damaged or aging cells.

ANGIOGENESIS & VASCULAR SUPPORT

Promote new blood vessel formation to improve perfusion, oxygenation, and healing.

TISSUE REPAIR & REMODELING

Enhance collagen, elastin, and ECM repair to restore strength, elasticity, and function.

MITOCHONDRIAL BIOGENESIS

Increase mitochondrial mass and efficiency to fuel regeneration and cellular renewal.

ANTI-FIBROSIS & PROTECTION

Reduce fibrosis and protect tissues from chronic stress and degeneration.

LONGEVITY AMPLIFICATION

Activate longevity genes and pathways to extend healthspan and performance.

PRIMARY RESEARCH COMPOUNDS

	COMPOUND	DOSE	FREQUENCY	MECHANISM OF ACTION	FOCUS AREA
	BPC-157	250 mcg	Daily	Promotes angiogenesis, tendon/ligament healing, and gut & tissue repair.	Tissue Repair & Gut Health
	GHK-Cu	2 mg	Daily	Stimulates collagen, elastin, and ECM synthesis; enhances wound healing.	Collagen & ECM Support
	TB-500	2 mg	2x / week	Enhances cell migration, angiogenesis, and accelerates tissue repair.	Recovery & Regeneration
	AOD-9604	30 U	3x / week	Targets fat metabolism, supports angiogenesis, and promotes healing.	Fat Metabolism & Repair
	IGF-1 LR3	20 U	3x / week	Promotes muscle growth, neuroprotection, and cellular regeneration.	Growth & Anabolism
	FOLLISTATIN	30 U	3x / week	Increases muscle mass and strength by naturally inhibiting myostatin.	Muscle Growth & Strength
	NANOMATRIX™	As Directed	Daily	Nano-metallic silver oxide supports wound healing up to 548% and antimicrobial defense.	Wound Healing & Defense
	SS-31	25 U	3x / week	Cardiolipin stabilizer that protects mitochondria and improves cellular energy.	Mitochondrial Protection
	EPITALON	25 U	3x / week	Supports telomere maintenance, DNA repair, and longevity gene activation.	Cellular Longevity & Telomeres
	GLUTATHIONE	74 U x 30 days, then 100 U weekly	Daily, then Weekly	Master antioxidant that reduces oxidative stress and supports detoxification & immunity.	Detox & Antioxidant

Doses are general guidelines. Individualization based on clinical assessment and monitoring is essential.

REGENERATIVE BIOMARKERS IMPACTED

Targeted improvements typically observed:

VEGF (Angiogenesis)

Collagen Production (PICP)

Tissue Healing Markers

IGF-1

Mitochondrial DNA Copy Number

Oxidative Stress Markers (8-OHdG)

Fibrosis Markers (TGF-β1, CTGF)

Systemic Inflammation (hs-CRP, IL-6)

Telomere Length

Physical Performance Metrics

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↑

↑

↑

↑

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SYSTEMS REGENERATED

MUSCULOSKELETAL SYSTEM

CARDIOVASCULAR SYSTEM

NERVOUS SYSTEM

GASTROINTESTINAL SYSTEM

SKIN & CONNECTIVE TISSUE

IMMUNE SYSTEM

ENDOCRINE SYSTEM

REPRODUCTIVE SYSTEM

OVERALL VITALITY

PHASE 5 OUTCOMES

✓ Accelerated tissue repair and organ regeneration.

✓ Enhanced strength, recovery, and functional performance.

✓ Improved vascularization and metabolic health.

✓ Reduced fibrosis, inflammation, and cellular damage.

✓ Foundation for exceptional healthspan and longevity.

THE ULTIMATE GOAL

Phase 5 unlocks your body's full regenerative potential. By combining advanced compounds, stem cell activation, and precision pathways, we don't just optimize health— we help you transcend limitations and perform, recover, and live beyond your current potential.

PHASE 6

METABOLIC EXCELLENCE & MITOCHONDRIAL PEAK PERFORMANCE

OPTIMIZING ENERGY, METABOLISM, AND CELLULAR EFFICIENCY

This phase focuses on achieving metabolic flexibility, stabilizing blood sugar and lipid metabolism, and maximizing mitochondrial biogenesis and efficiency to support sustained energy, cognitive clarity, and peak physical performance.

“Mitochondria are the power plants of our cells—optimize them, and you optimize life.”

— DR. ANDREW J. M. WILLOUGHBY



KEY OBJECTIVES

Enhance mitochondrial biogenesis and cellular energy production

Improve metabolic flexibility and substrate utilization

Stabilize glucose, lipid, and insulin metabolism

Support cognitive performance and mental endurance

Optimize body composition and reduce visceral fat

CORE METABOLIC OPTIMIZATION PATHWAYS

MITOCHONDRIAL BIOGENESIS

Increase mitochondrial number and efficiency to produce more ATP and reduce cellular fatigue.

FUEL UTILIZATION & FLEXIBILITY

Optimize the body's ability to switch between fats and carbohydrates for sustained energy.

GLUCOSE & LIPID METABOLISM

Improve insulin sensitivity and stabilize blood sugar and lipid profiles.

COGNITIVE & MENTAL ENERGY

Enhance brain energy metabolism for focus, clarity, and mood stability.

CELLULAR PROTECTION

Reduce oxidative stress and protect mitochondria from damage.

LONGEVITY MULTIPLIER

Create the optimal metabolic state to extend healthspan and performance potential.

PRIMARY RESEARCH COMPOUNDS

COMPOUND	DOSE	FREQUENCY	MECHANISM OF ACTION	FOCUS AREA
SR9009	20 U	Daily	Rev-Erb agonist that enhances mitochondrial function, metabolic rate, and circadian rhythm alignment.	Circadian & Metabolism
AICAR	25 U	3x / week	Activates AMPK pathway to improve glucose uptake, fat oxidation, and mitochondrial biogenesis.	AMPK Activation & Energy
MOTS-c	25 U	3x / week	Improves insulin sensitivity, metabolic flexibility, and mitochondrial efficiency.	Metabolic Flexibility
SS-31	25 U	3x / week	Protects mitochondria from oxidative damage and preserves cellular energy.	Mitochondrial Protection
TA-65®	25 U	3x / week	Activates telomerase to support mitochondrial function and cellular longevity.	Telomere Support
GLUTATHIONE	74 U x 30 days, then 100 U weekly	Daily, then Weekly	Master antioxidant that supports mitochondrial detoxification and reduces oxidative stress.	Detox & Antioxidant
NANOMATRIX™	As Directed	Daily	Nano-metallic silver oxide supports mitochondrial defense, energy production, and antimicrobial protection.	Mitochondrial Defense

METABOLIC BIOMARKERS OPTIMIZED

Targeted improvements typically observed:

Fasting Insulin

Fasting Glucose

HbA1c

Triglycerides

HDL Cholesterol

LDL Particle Size

VO₂ Max

Mitochondrial DNA Copy Number

Lactate Threshold

Body Composition (Lean Mass)

Mental Focus & Endurance

↓

↓

↓

↓

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SYSTEMS OPTIMIZED

ENERGY PRODUCTION	METABOLIC FLEXIBILITY	BLOOD SUGAR CONTROL	LIPID BALANCE
BRAIN ENERGY	MITOCHONDRIAL EFFICIENCY	OXIDATIVE DEFENSE	PERFORMANCE ENDURANCE
RECOVERY ACCELERATION	BODY COMPOSITION	LONGEVITY ACTIVATION	HEALTHSPAN EXTENSION

PHASE 6 OUTCOMES

✓

Increased mitochondrial density and ATP production.

✓

Improved metabolic flexibility and insulin sensitivity.

✓

Stable blood sugar and optimized lipid profiles.

✓

Enhanced cognitive energy and mental endurance.

✓

Peak physical performance and faster recovery.

✓

Long-term activation of longevity and healthspan pathways.

THE PERFORMANCE + LONGEVITY VISION

Phase 6 is where metabolism becomes your superpower. By optimizing energy pathways and mitochondrial efficiency, you gain sustained performance, mental clarity, and the metabolic resilience to thrive at any age.

FUEL. PROTECT. PERFORM. LIVE LONGER.

PHASE 7

COGNITIVE OPTIMIZATION & NEUROPROTECTION

ENHANCING BRAIN HEALTH, MENTAL CLARITY & NEURORESILIENCE

This phase focuses on supporting neuronal health, synaptic plasticity, and neuroprotection while optimizing neurotransmitter balance and cerebral blood flow for peak cognitive performance and long-term brain vitality.

“The goal is not just a longer life—it’s a sharper, more vibrant, and more connected one.

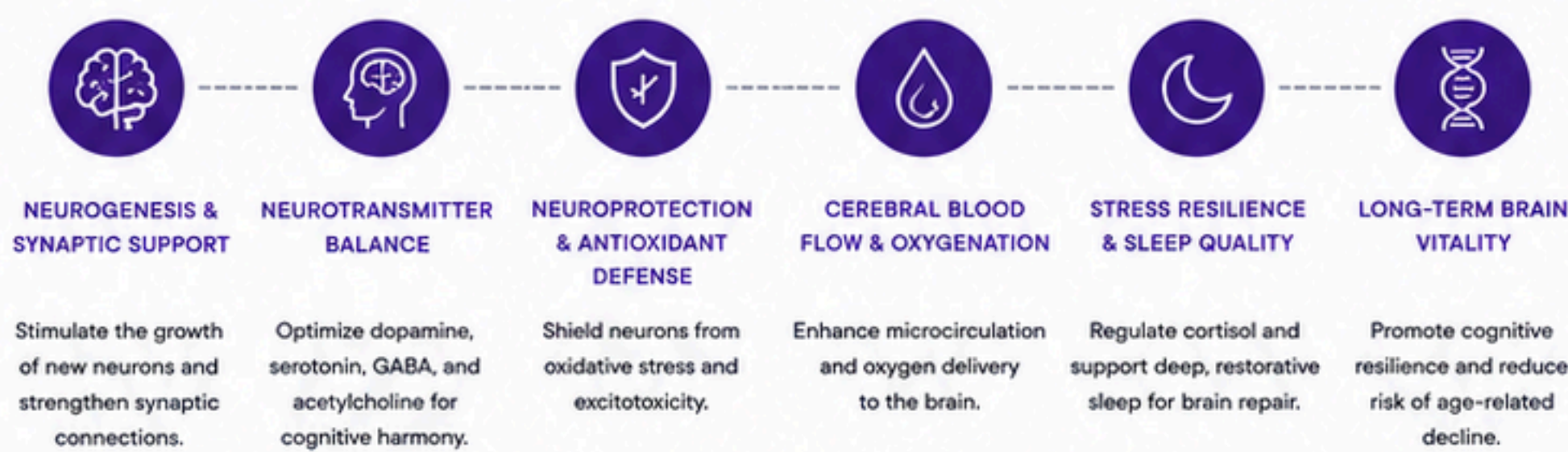
– DR. ANDREW J. M. WILLOUGHBY



KEY OBJECTIVES

- Enhance memory, focus, and mental clarity
- Promote synaptic plasticity and neurogenesis
- Protect neurons from oxidative stress and inflammation
- Improve cerebral blood flow and oxygenation
- Support mood balance, stress resilience, and sleep quality

CORE COGNITIVE OPTIMIZATION PATHWAYS



PRIMARY RESEARCH COMPOUNDS

COMPOUND	DOSE	FREQUENCY	MECHANISM OF ACTION	FOCUS AREA
EPITALON	25 U	3x / week	Supports pineal gland function, telomere maintenance, and circadian rhythm alignment.	Cellular Longevity & Circadian Health
SEMAGLUTIDE	As Directed	Weekly	Supports neuroprotection, appetite regulation, and cognitive performance.	Neuroprotection & Metabolism
BPC-157	250 mcg	Daily	Promotes neuronal repair, reduces inflammation, and supports gut-brain axis.	Neurorepair & Gut-Brain Axis
NOOTROPIC PEPTIDE BLEND*	As Directed	Daily	Synergistic blend to enhance memory, focus, and neural resilience.	Cognitive Enhancement
SS-31	25 U	3x / week	Mitochondrial-targeted peptide that protects neurons and improves cell energy production.	Mitochondrial Protection
TA-65®	25 U	3x / week	Supports telomerase activation in neural cells and protects against neurodegeneration.	Telomere Support
GLUTATHIONE	74 U x 30 days, then 100 U weekly	Daily, then Weekly	Master antioxidant that reduces oxidative stress and supports detoxification in the brain and body.	Detox & Antioxidant
NANOMATRIX™	As Directed	Daily	Nano-metallic silver oxide supports neuroimmune balance and antimicrobial protection.	Neuroimmune Defense

*Proprietary nootropic peptide blend may include compounds targeting BDNF signaling, synaptic plasticity, and memory consolidation.

COGNITIVE BIOMARKERS IMPROVED

- Targeted improvements typically observed:
- Memory & Recall
 - Focus & Attention Span
 - Processing Speed
 - Learning & Adaptability
 - BDNF Levels
 - Cerebral Blood Flow
 - HRV (RMSSD)
 - Sleep Efficiency
 - Mood Stability
 - Neuroinflammation Markers (IL-6, TNF-α)
 - Oxidative Stress Markers (8-OHdG)

BRAIN SYSTEMS SUPPORTED



PHASE 7 OUTCOMES

- Enhanced memory, focus, and mental clarity.
- Improved synaptic plasticity and neurogenesis.
- Reduced neuroinflammation and oxidative stress.
- Optimized cerebral blood flow and oxygenation.
- Stronger stress resilience and deeper sleep.
- Long-term protection against cognitive decline.



THE MIND IS PART OF THE MISSION

Phase 7 ensures that your brain is as optimized as your body. By supporting neural health, mental performance, and emotional well-being, we empower you to think sharper, feel better, and live with purpose and connection.

SHARP MIND. STRONG BODY. LIMITLESS POTENTIAL.

PHASE 8

HORMONAL BALANCE & ENDOCRINE OPTIMIZATION

RESTORING HORMONAL HARMONY,
VITALITY & ADAPTIVE RESILIENCE

This phase focuses on optimizing endocrine function, balancing key hormones, and supporting adrenal, thyroid, and sex steroid health to enhance energy, mood, body composition, and overall quality of life.

“Hormones are the conductors of your body's symphony. When they're in harmony, you thrive.”

— DR. ANDREW J. M. WILLOUGHBY

KEY OBJECTIVES

Optimize sex hormone balance & receptor sensitivity

Support adrenal function and stress hormone balance

Enhance thyroid function and metabolic regulation

Improve insulin sensitivity and glycemic control

Promote healthy body composition & vitality

Enhance mood, libido, and overall well-being

CORE ENDOCRINE OPTIMIZATION PATHWAYS

SEX HORMONE BALANCE

Optimize testosterone, estrogen, progesterone, and DHEA for energy, libido, recovery, and well-being.

ADRENAL SUPPORT

Support HPA axis balance, reduce cortisol dysregulation, and enhance stress resilience.

THYROID OPTIMIZATION

Enhance thyroid hormone production, conversion, and receptor sensitivity for metabolic health.

METABOLIC REGULATION

Improve insulin sensitivity, glucose metabolism, and lipid utilization for energy balance.

BODY COMPOSITION & PERFORMANCE

Support lean muscle growth, fat loss, and physical performance through hormonal harmony.

LONGEVITY AMPLIFIER

Optimize endocrine health to extend healthspan, vitality, and sexual wellness.

PRIMARY RESEARCH COMPOUNDS

COMPOUND	DOSE	FREQUENCY	MECHANISM OF ACTION	FOCUS AREA
HCG	250 IU	2x / week	Stimulates endogenous testosterone production and supports Leydig cell function.	Sex Hormone Optimization
TRT / TESTOSTERONE PEPTIDE BLEND*	As Directed	As Directed	Supports optimal testosterone levels for strength, libido, mood, and vitality.	Sex Hormone Optimization
PT-141	1 mg	2x / week	Enhances libido, sexual performance, and mood via melanocortin receptor activation.	Libido & Sexual Wellness
CJC-1295 (NO DAC)	100 mcg	Daily	Stimulates GH release to support recovery, body composition, and anti-aging.	Growth & Recovery
IPAMORELIN	100 mcg	Daily	Promotes natural GH secretion with favorable safety and minimal side effects.	Growth & Recovery
BPC-157	250 mcg	Daily	Supports tissue repair, gut health, and modulates inflammatory response.	Repair & Inflammation
THYROID SUPPORT COMPLEX*	As Directed	Daily	Supports thyroid hormone production, conversion, and receptor sensitivity.	Thyroid Support
NANOMATRIX™	As Directed	Daily	Nano-metallic silver oxide supports endocrine tissue protection and systemic resilience.	Systemic Protection

ENDOCRINE BIOMARKERS OPTIMIZED

Targeted improvements typically observed:

Total & Free Testosterone

Estradiol (E2)

Progesterone

DHEA-S

Cortisol (Diurnal Rhythm)

TSH, Free T3, Free T4

Insulin Sensitivity (HOMA-IR)

Fasting Glucose

Lipid Profile (HDL, LDL, Triglycerides)

Sex Hormone Binding Globulin (SHBG)

Body Composition (Lean Mass / Body Fat %)

SYSTEMS HARMONIZED

ENDOCRINE SYSTEM

NERVOUS SYSTEM

CARDIOVASCULAR SYSTEM

METABOLIC SYSTEM

IMMUNE SYSTEM

MUSCULOSKELETAL SYSTEM

SLEEP & CIRCADIAN SYSTEM

SEXUAL HEALTH & WELLNESS

LONGEVITY & VITALITY

*Compounds may be tailored based on individual lab results and clinical assessment.

PHASE 8 OUTCOMES

✓

Optimized sex hormone balance and libido.

✓

Improved energy, mood, and stress resilience.

✓

Enhanced thyroid function and metabolic rate.

✓

Improved body composition and physical performance.

✓

Better sleep quality, recovery, and overall vitality.

✓

Enhanced hormonal harmony for healthy aging.

HORMONAL HARMONY. WHOLE-BODY VITALITY.

When your hormones are balanced, every system works in harmony. Phase 8 creates the endocrine foundation for strength, vitality, confidence, and a longer, more vibrant life.

BALANCE. OPTIMIZE. THRIVE.

PHASE 9

LONGEVITY OPTIMIZATION STACK

TARGETED SUPPLEMENTATION FOR PEAK CELLULAR HEALTH & HUMAN POTENTIAL

Phase 9 is built on a synergistic foundation of high-impact compounds that activate longevity pathways, support cellular energy, enhance resilience, and protect against biological aging. Each component plays a unique role—together, they create a powerful, science-backed longevity stack.

KEY OBJECTIVES

- 

Boost NAD+ levels and mitochondrial energy
- 

Activate sirtuins and longevity pathways
- 

Protect cells from oxidative stress and inflammation
- 

Support cognitive function, mood, and mental clarity
- 

Promote healthy aging, recovery, and vitality
- 

Enhance physical performance, endurance, and resilience



OUR FLAGSHIP FORMULA

ANERA NMN + TRANS-RESVERATROL 24,000



24,000 mg potency per bottle



Uthever® enzymatic NMN & 98% pure Trans-Resveratrol



Health Canada approved (NPN 80129476)



Third-party tested for purity & heavy metals



Pharmaceutical grade ingredients



AT THE CORE OF PHASE 9: ANERA NMN + TRANS-RESVERATROL 24,000

Fueling cellular energy, activating sirtuins, and supporting longevity pathways at the foundation.

THE CORE LONGEVITY STACK

					
CELLULAR ENERGY	SIRTUIN & EPIGENETIC ACTIVATION	BRAIN & COGNITIVE SUPPORT	ANTIOXIDANT PROTECTION	METABOLIC & PERFORMANCE SUPPORT	HEALTHSPAN AMPLIFICATION
NMN + Trans-Resveratrol 24,000	Resveratrol, Fisetin, TA-65®, Spermidine	NMN, Fisetin, Spermidine, TA-65®	Resveratrol, Fisetin, Quercetin, Glutathione	Berberine, Creatine, Taurine, Magnesium L-Threonate	All-in-one synergy for extended healthspan, vitality, and quality of life.
Elevates NAD+, fuels mitochondria, and activates longevity genes.	Activates sirtuins, supports autophagy, and promotes cellular renewal.	Enhances memory, focus, neuroprotection, and mental performance.	Neutralizes oxidative stress and supports DNA, immune, and cellular defense.	Supports metabolism, muscle function, recovery, and physical performance.	

PRIMARY RESEARCH COMPOUNDS

COMPOUND	PRIMARY BENEFIT	KEY MECHANISMS	DOSAGE
 NMN + TRANS-RESVERATROL 24,000 ★	Cellular energy & longevity	Raises NAD+, activates SIRT1, supports mitochondrial biogenesis & antioxidant defense	1 capsule daily
 Fisetin	Senolytic & antioxidant	Clears senescent cells, reduces inflammation, supports healthy aging	1 capsule daily
 QUERCETIN	Immune & antioxidant	Reduces oxidative stress, supports immune function & cardiovascular health	1 capsule daily
 BERBERINE	Metabolic & glucose support	Supports insulin sensitivity, AMPK activation, gut & metabolic health	1 capsule 2x daily
 CREATINE	Energy & performance	Increases ATP production, muscle strength, cognitive support	1 serving daily
 TAURINE	Cellular hydration & recovery	Supports heart, brain, electrolyte balance, and recovery	1 capsule daily
 MAGNESIUM L-THREONATE	Brain & sleep support	Crosses BBB, supports memory, relaxation, and deep sleep	1 capsule daily
 SPERMIDINE	Autophagy & longevity	Induces autophagy, supports cellular cleanup & healthy aging	1 capsule daily
 GLUTATHIONE	Detox & antioxidant	Master antioxidant, cellular detoxification, immune support	1 capsule daily
 TA-65® (TELOMERASE ACTIVATOR)	Telomere & DNA support	Activates telomerase, supports telomere length & DNA protection	1 capsule 3x weekly

THE POWER OF SYNERGY



- This stack works synergistically to:
- 

Increase NAD+ & mitochondrial function
- 

Activate sirtuins & longevity genes
- 

Protect DNA & cells from damage
- 

Enhance brain, mood & focus
- 

Support metabolism & physical performance
- 

Extend healthspan and vitality

CLINICALLY SUPPORTED OUTCOMES

- Improved energy & mitochondrial function
- Enhanced sirtuin & autophagy activation
- Reduced oxidative stress & inflammation
- Better cognitive performance & clarity
- Improved metabolic health & insulin sensitivity
- Stronger immune function & resilience
- Optimized recovery, performance & stamina
- Extended healthspan & quality of life



“ Longevity is not about adding years to your life, it’s about adding life to your years.

– DR. ANDREW J. M. WILLOUGHBY



PHASE 9 OUTCOMES

-  Maximize cellular energy and mitochondrial health
-  Activate sirtuins, autophagy, and DNA repair
-  Reduce biological aging and oxidative damage
-  Enhance brain health, focus, and mood
-  Optimize metabolism, body composition & performance
-  Extend healthspan and longevity



THE FOUNDATION. THE SYNERGY. THE RESULTS.

At the core of Phase 9 is ANERA NMN + Trans-Resveratrol 24,000—the catalyst that powers every longevity pathway. Combined with the right supporting compounds, this is how we unlock your full potential and optimize human performance.

FUEL YOUR CELLS. PROTECT YOUR FUTURE.

PHASE 10

ADMINISTRATION, SAFETY & QUALITY ASSURANCE

PRECISION DELIVERY.
UNCOMPROMISING STANDARDS.

Phase 10 ensures every component of Elite MEOP™ is administered safely, effectively, and manufactured to the highest pharmaceutical standards—so you can perform, recover, and live with confidence.



“
Quality is never an accident. It is always the result of intelligent effort.

– DR. ANDREW J. M. WILLOUGHBY

DELIVERY METHODS

-  **Subcutaneous (SubQ)**
Primary route for peptides and many supportive compounds.
-  **Intramuscular (IM)**
Used for select peptides (e.g., Follistatin) as indicated.
-  **Oral / Capsules**
High-quality capsules for daily foundational support (e.g., Anera NMN + Trans-Resveratrol 24,000 and other supplements).
-  **Sublingual (Where Indicated)**
For rapid absorption of selected compounds.
-  **Dosing Frequency**
Protocols are structured based on compound half-life, clinical evidence, and individual goals.

SAFETY FIRST

-  **CLINICALLY INFORMED**
All protocols are evidence-based and designed by medical experts.
-  **INDIVIDUALIZED APPROACH**
Customized protocols based on comprehensive health assessment.
-  **MONITOR & ADAPT**
Regular check-ins, biomarker tracking, and protocol adjustments.
-  **SIDE EFFECT AWARE**
Potential side effects are discussed, monitored, and managed proactively.
-  **YOUR SAFETY, OUR PRIORITY**
We are with you every step of the way to ensure optimal outcomes.

COMMON SIDE EFFECTS (TEMPORARY & MANAGEABLE)

- Injection site redness or irritation
 - Fatigue
 - Water retention
 - Headache
 - Nausea
 - Sleep disturbances
- Your medical team will guide you through safe management strategies.

PHARMACEUTICAL-GRADE QUALITY ASSURANCE



 **OUR COMMITMENT:** Transparency. Integrity. Excellence.
Because your health deserves nothing less.



STORAGE & HANDLING

-  Store peptides in the refrigerator (2–8°C). Do not freeze.
-  Keep away from direct light and heat.
-  Keep out of reach of children.
-  Use sterile needles and follow aseptic technique.

SUPPORT & EDUCATION

-  Comprehensive onboarding & training
-  Protocol manuals & instructional guides
-  Ongoing access to our medical team & longevity coaches
-  Resources, webinars, and latest science updates

ANERA NMN + TR 24,000

-  24,000 mg potency per bottle
 -  Uthever® enzymatic NMN
 -  98% pure Trans-Resveratrol
 -  Health Canada approved (NPN 80129476)
 -  Third-party tested for purity & heavy metals
 -  Pharmaceutical grade ingredients
-  ENERGY  PROTECT  REPAIR  LONGEVITY



PHASE 10 OUTCOMES

- ✓ Safe and effective administration
- ✓ Minimized risk of side effects
- ✓ Maximum absorption and efficacy
- ✓ Consistent product quality and reliability
- ✓ Ongoing monitoring for optimal results



YOUR HEALTH. OUR STANDARD.

Phase 10 ensures that every detail—from needles to capsules is handled with precision and care. Because longevity isn't just about what you take, it's about how well it's delivered.

SAFE. SMART. SCIENTIFIC.

PHASE 9 & 10

PROTOCOL SUMMARY & NEXT STEPS

YOUR BLUEPRINT FOR LIFELONG PERFORMANCE AND HEALTHSPAN.

Elite MEOP™ Phases 9 & 10 integrate advanced compounds, precision administration, and uncompromising quality to help you activate longevity pathways, protect your biology, and unlock your full potential—today and for years to come.

“Longevity isn’t just about more time. It’s about better time.”

– DR. ANDREW J. M. WILLOUGHBY

-  ACTIVATE YOUR GENES
-  POWER YOUR CELLS
-  PROTECT YOUR HEALTH
-  AMPLIFY YOUR LIFE

THE COMPLETE ELITE MEOP™ STACK

Each component in Phases 9 & 10 plays a unique role. Together, they create a synergistic longevity effect.

-  **CELLULAR ENERGY**
NMN + Trans-Resveratrol 24,000, Creatine, TA-65®, Spermidine
-  **SIRTUIN ACTIVATION**
Resveratrol, Fisetin, Quercetin, Spermidine, Berberine
-  **BRAIN & COGNITIVE SUPPORT**
Fisetin, Spermidine, TA-65®, Magnesium L-Threonate
-  **ANTIOXIDANT PROTECTION**
Quercetin, Resveratrol, Glutathione, Taurine, Magnesium L-Threonate
-  **METABOLIC & PERFORMANCE SUPPORT**
Berberine, Creatine, Taurine, Magnesium L-Threonate
-  **HEALTHSPAN AMPLIFICATION**
All compounds working together to extend healthspan and vitality



-  **AT THE HEART OF IT ALL:**
ANERA NMN + TRANS-RESVERATROL 24,000
Fueling cellular energy, activating sirtuins, and supporting longevity pathways at the foundation.

HOW TO IMPLEMENT

-  **CONSULT**
Work with your healthcare professional to personalize your Elite MEOP™ Protocol.
-  **START SLOW**
Introduce compounds gradually as recommended to assess tolerance and synergy.
-  **CONSISTENCY IS KEY**
Daily commitment yields long-term results.
-  **MONITOR & ADAPT**
Track progress, biomarkers, and how you feel. Adjust as needed.
-  **LIVE THE PROTOCOL**
Elite MEOP™ is more than supplements—it’s a lifestyle of movement, recovery, nutrition, and mindset.

-  **YOU DON’T FOLLOW THE PROTOCOL. THE PROTOCOL EMPOWERS YOU.**
You are the driver. We provide the roadmap.

WHAT YOU CAN EXPECT

- ✓ Increased cellular energy & mitochondrial function
- ✓ Activation of longevity genes and sirtuin pathways
- ✓ Reduced oxidative stress and inflammation
- ✓ Enhanced cognitive performance and mood
- ✓ Improved metabolic health & body composition
- ✓ Stronger immune function & resilience
- ✓ Extended healthspan and vitality
- ✓ Better quality of life—every day

OUR COMMITMENT TO YOU

We are committed to delivering the highest quality, transparency, and scientific integrity in everything we do. Because your health deserves nothing less.

-  Pharmaceutical-Grade Ingredients
-  Third-Party Tested for Purity & Potency
-  Health Canada NPN Approved
-  Manufactured in GMP Facilities in Canada
-  Formulated by Dr. Andrew J. M. Willoughby

SCIENCE. QUALITY. TRUST.
THAT’S THE ASCENDA STANDARD.

THE NEXT CHAPTER STARTS NOW

Longevity is not a destination—it’s a continuous evolution. With Elite MEOP™ Phases 9 & 10, you have the tools, the science, and the support to live longer, stronger, and better.

 **EMPOWER YOUR BIOLOGY. ELEVATE YOUR LIFE.**

PHASE 9 & 10 OUTCOMES: SCIENCE. PRECISION. LONGEVITY.

-  Optimize Energy
-  Protect Cells
-  Activate Genes
-  Enhance Mind
-  Extend Healthspan
-  Amplify Life

Elite MEOP™ is a precision protocol designed to help you perform at your best today and age at your best tomorrow.
Your biology. Your future. Optimized.

PRECISION MONITORING & BIOMARKER ADAPTATION

MEASURE. ANALYZE. ADAPT. OPTIMIZE.

Elite MEOP™ is a dynamic, data-driven protocol. We continuously monitor key biomarkers, performance metrics, and clinical markers to personalize and adapt the protocol for maximal results, safety, and longevity.

What gets measured gets optimized.

“

We don't guess.
We measure.
We don't assume.
We verify.

That's how we extend healthspan.

– DR. ANDREW J. M. WILLOUGHBY

DR. ANDREW J. M. WILLOUGHBY – CURRENT PERFORMANCE SNAPSHOT

As of July 18, 2025

 BIOLOGICAL AGE (KAI) 39.7 CALENDAR AGE: 65 –25.3 YEARS YOUNGER	 VO₂ MAX (FITNESS AGE 41–45) 58.6 ml/kg/min SUPERIOR CARDIOVASCULAR FITNESS	 GRIP STRENGTH (AVERAGE) 166/165 LBS EXCEPTIONAL UPPER BODY STRENGTH	 BOLT SCORE (BIOLOGICAL OPTIMAL LONGEVITY TIME) 52 SECONDS EXCELLENT SYSTEM RESILIENCE	 BREATH HOLD (CO₂ TOLERANCE) 2:07 MINUTES SUPERIOR RESPIRATORY EFFICIENCY
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WHAT WE MONITOR (ADAPTED CONTINUOUSLY)

 BLOOD & BIOCHEMISTRY - CBC, CMP, Lipid Panel - Glucose, Insulin, HbA1c - Kidney & Liver Function - Electrolytes - Inflammatory Markers (CRP, hs-CRP, IL-6, etc.)	 HORMONAL MARKERS - Testosterone (Total/Free) - DHEA-S - Cortisol (AM/PM) - IGF-1 - Thyroid Panel	 METABOLIC & MITOCHONDRIAL - NAD+ Levels - Homocysteine - Uric Acid - Lactate - Oxidative Stress Markers	 IMMUNE & INFLAMMATION - Cytokine Profile - Immune Cell Function - Oxidative Stress - Gut Health (Microbiome)	 NEUROCOGNITIVE & MENTAL - Cognitive Testing - Mood & Well-being - Sleep Quality - HRV & Stress Resilience	 PHYSIQUE & COMPOSITION - DEXA Scan - Body Fat % - Lean Mass - Visceral Fat - Bone Density	 PERFORMANCE & RECOVERY - Strength & Power - Endurance - Recovery Time - Mobility & Flexibility - Injury Prevention	 LONGEVITY & EPIGENETIC - Telomere Length - Epigenetic Age - DNA Methylation - Gene Expression - Cellular Senescence Markers
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HOW WE ADAPT

- 

DATA DRIVEN

Clinical data and performance metrics guide every adjustment.
- 

PERSONALIZED

Doses, frequency, and compounds are tailored to your unique biology.
- 

RESPONSIVE

We adapt in real time to optimize results and minimize risk.
- 

PREVENTATIVE

Biomarkers allow us to intervene early and protect long-term health.

OUR MONITORING CADENCE

EVERY 6–12 MONTHS

Comprehensive Lab Panel
DEXA Scan
Epigenetic Testing



EVERY 3 MONTHS

Key Biomarker Review,
Performance Testing
Protocol Adjustment

EVERY 2–4 WEEKS

Check-in
Symptom Review
HRV & Recovery Metrics

THE GOAL



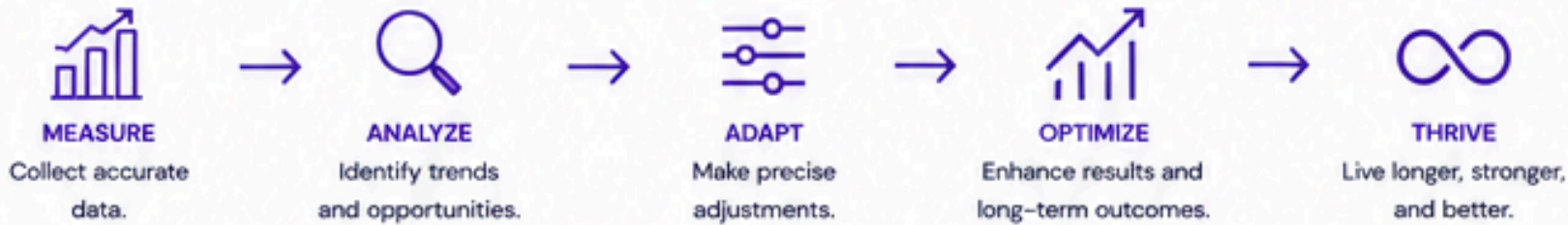
EXTEND HEALTHSPAN.
MAXIMIZE PERFORMANCE.
DELAY BIOLOGICAL AGING.

We are not just adding years to life.
We are adding life to years.



YOUR DATA. YOUR PROTOCOL. YOUR FUTURE.

Elite MEOP™ is not static. It is a living protocol that evolves with you. Through precision monitoring and intelligent adaptation, we ensure you are always moving forward—never standing still.



THE ELITE MEOP™ ARCHITECTURE

A COMPLETE SYSTEM.
A SINGLE PURPOSE: LONGEVITY.

Elite MEOP™ is not a stack.
It is a structured longevity architecture—engineered to optimize every biological system that determines how long and how well you live.

All systems. All connected.
One outcome: A New You.

“

Longevity is not about adding years to life.
It's about adding life to years.

— DR. ANDREW
J. M. WILLOUGHBY

PRECISION
FOCUSED

Data-driven
and individualized

SCIENCE
LED

Evidence-based
and peer informed

SYSTEMS
INTEGRATED

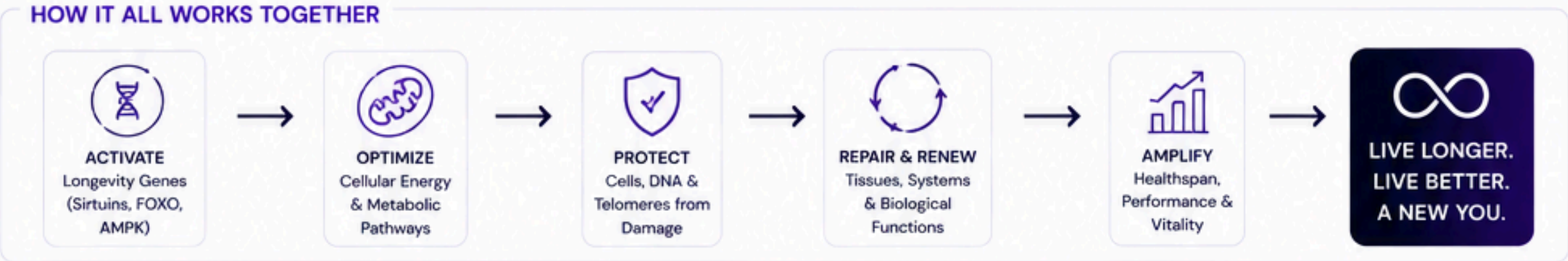
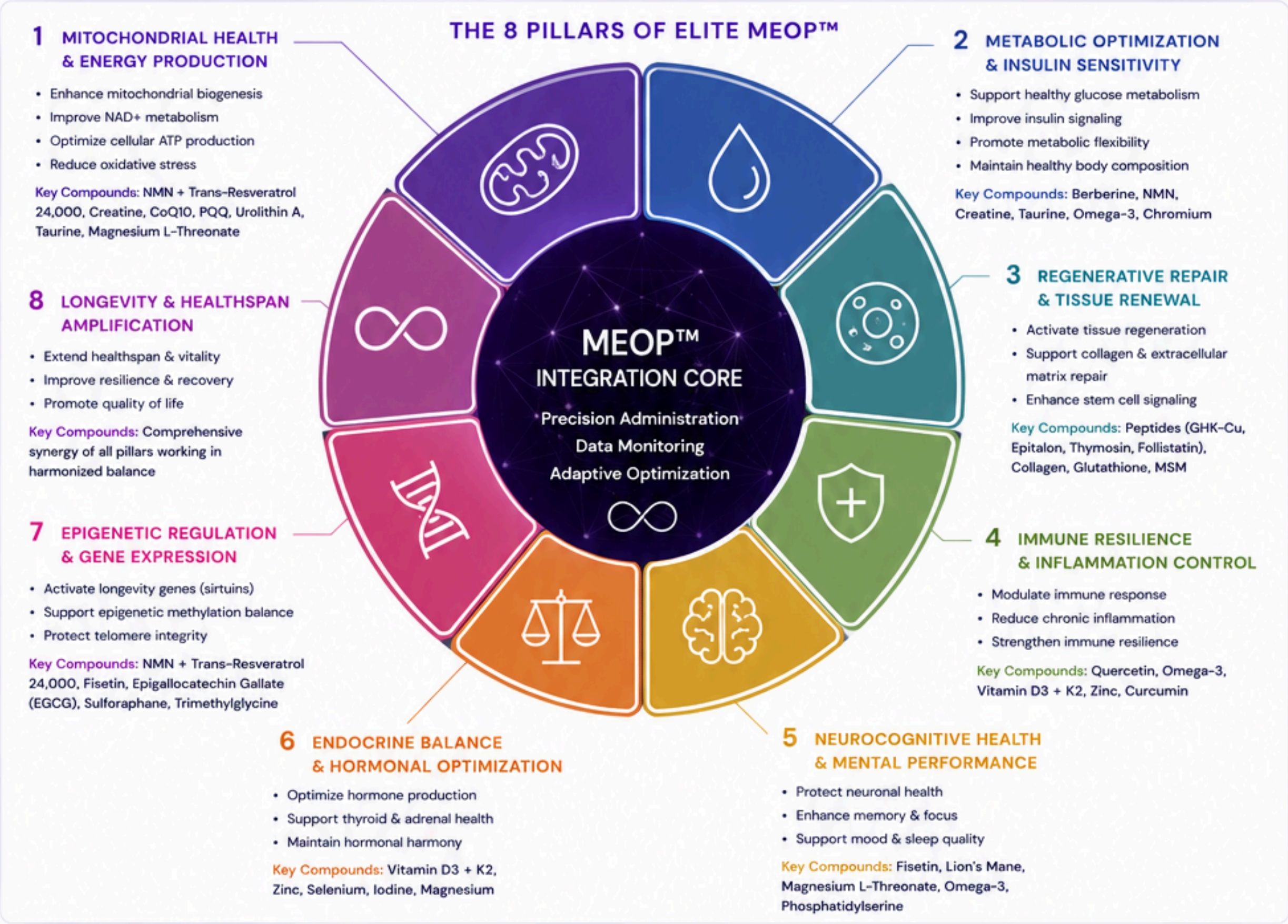
Multi-pathway
optimization

ADAPTIVE
BY DESIGN

Continuously
monitored and
adjusted

LONGEVITY
OUTCOMES

Extend healthspan.
Maximize potential.



DYNAMIC. ADAPTIVE. PERSONAL.

Elite MEOP™ evolves with you. Through continuous monitoring of biomarkers, performance, and clinical outcomes, we adapt every variable to ensure you are always operating at your highest potential.

INTEGRATED. INTELLIGENT. INTENTIONAL.

This is more than optimization.
This is the future of health.
This is the Ascenda Standard.

SCIENCE. PRECISION. LONGEVITY.

THE ASCENDA STANDARD

- Pharmaceutical-Grade Ingredients
- Third-Party Tested for Purity & Potency
- Health Canada NPN Approved
- Manufactured in GMP Facilities in Canada
- Formulated by Dr. Andrew J. M. Willoughby

ELITE MEOP™

SCIENCE. PRECISION. LONGEVITY.

This is more than a protocol.
It is a commitment to your future.

The Elite MEOP™ is a living framework—continuously refined through science, data, and real-world results to help you extend your healthspan, maximize your performance, and unlock your full human potential.

“
Longevity isn’t about adding years to life.
It’s about adding life to years.

— DR. ANDREW J. M. WILLOUGHBY



SCIENCE LED
Evidence-based medicine and emerging science guide every decision.



PRECISION DRIVEN
Personalized protocols based on objective metrics and continuous monitoring.



ADAPTIVE BY DESIGN
Dynamic optimization ensures your protocol evolves with you.



RESULTS FOCUSED
Measurable outcomes that enhance health, performance, and quality of life.



BUILT FOR LONGEVITY
A comprehensive approach to extend healthspan and maximize potential.



YOU ARE NOT FOLLOWING A PROTOCOL.
YOU ARE BUILDING YOUR LEGACY.
We are here to guide you. You are here to live it.

Dr. Andrew J. M. Willoughby

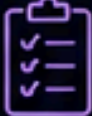
PRESIDENT & CSO
ASCENDA LABS

At Ascenda Labs, our mission is to advance human health through precision protocols, rigorous science, and uncompromising quality.

EMPOWER YOUR BIOLOGY.
ELEVATE YOUR LIFE.



PHARMACEUTICAL-GRADE INGREDIENTS



THIRD-PARTY TESTED FOR PURITY & POTENCY



HEALTH CANADA NPN APPROVED



MANUFACTURED IN GMP FACILITIES IN CANADA



FORMULATED BY DR. ANDREW J. M. WILLOUGHBY

