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

VO_2 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

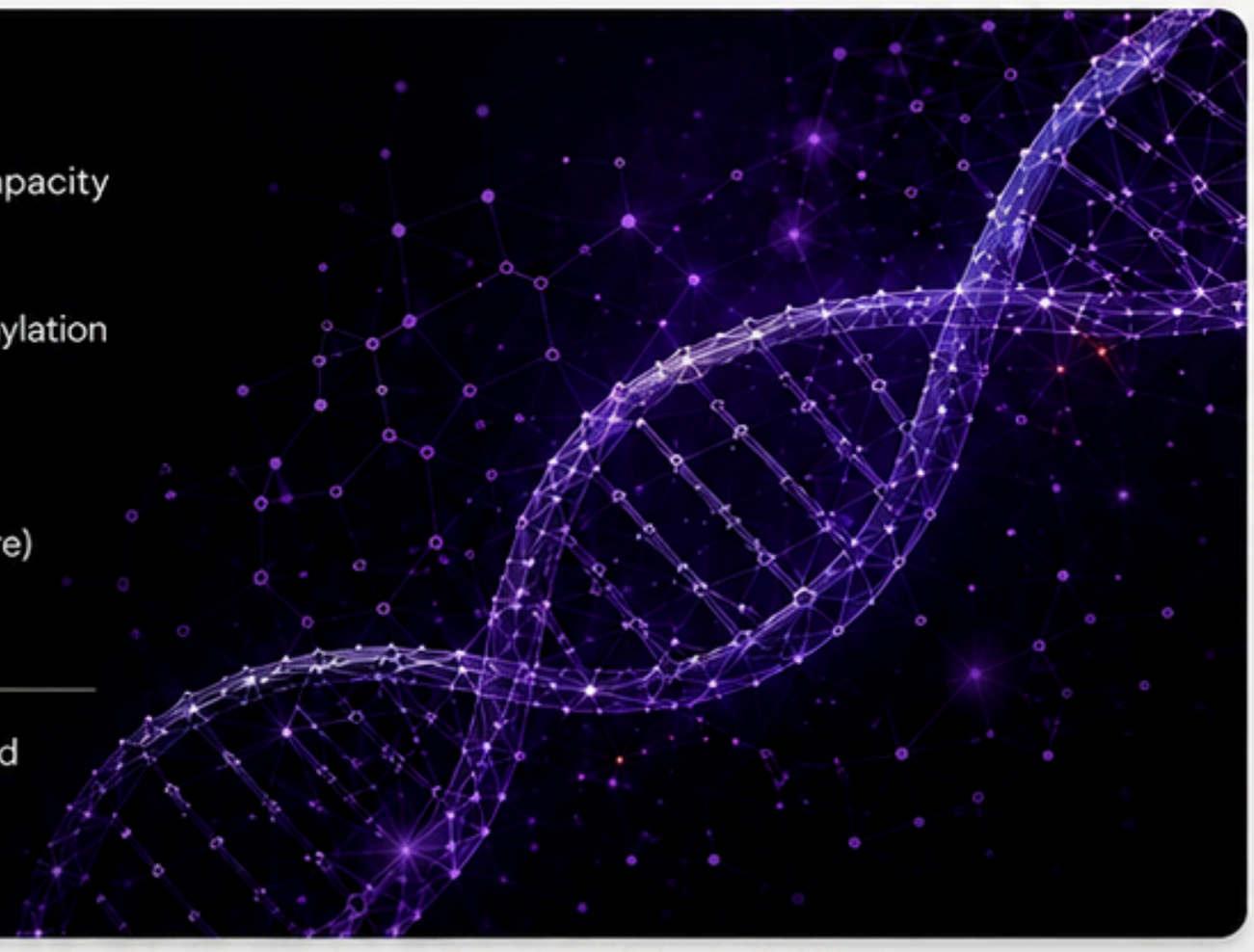
- Zone 2 Cardiovascular Conditioning
- Plyometrics
- Heavy Resistance Training

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 (VO_2 Max)
- Excellent muscular strength (Grip Strength)
- Strong breath-hold and CO_2 tolerance (BOLT Score)
- Consistent high-level training regimen

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



All measurements are baseline values. Results may vary. This information is for educational purposes only and not a substitute for professional medical advice.

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
- VO_2 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
- VO_2 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	60.3	166 / 165	2:07	52 sec
DNA METHYLATION AGE	VO_2 MAX	GRIP STRENGTH (LBS)	BREATH HOLD	BOLT SCORE
BIOLOGICALLY OPTIMIZED	EXCELLENT CARDIORESPIRATORY FITNESS	EXCELLENT MUSCULAR PERFORMANCE	SUPERIOR CO_2 TOLERANCE	HIGH PHYSIOLOGICAL RESILIENCE

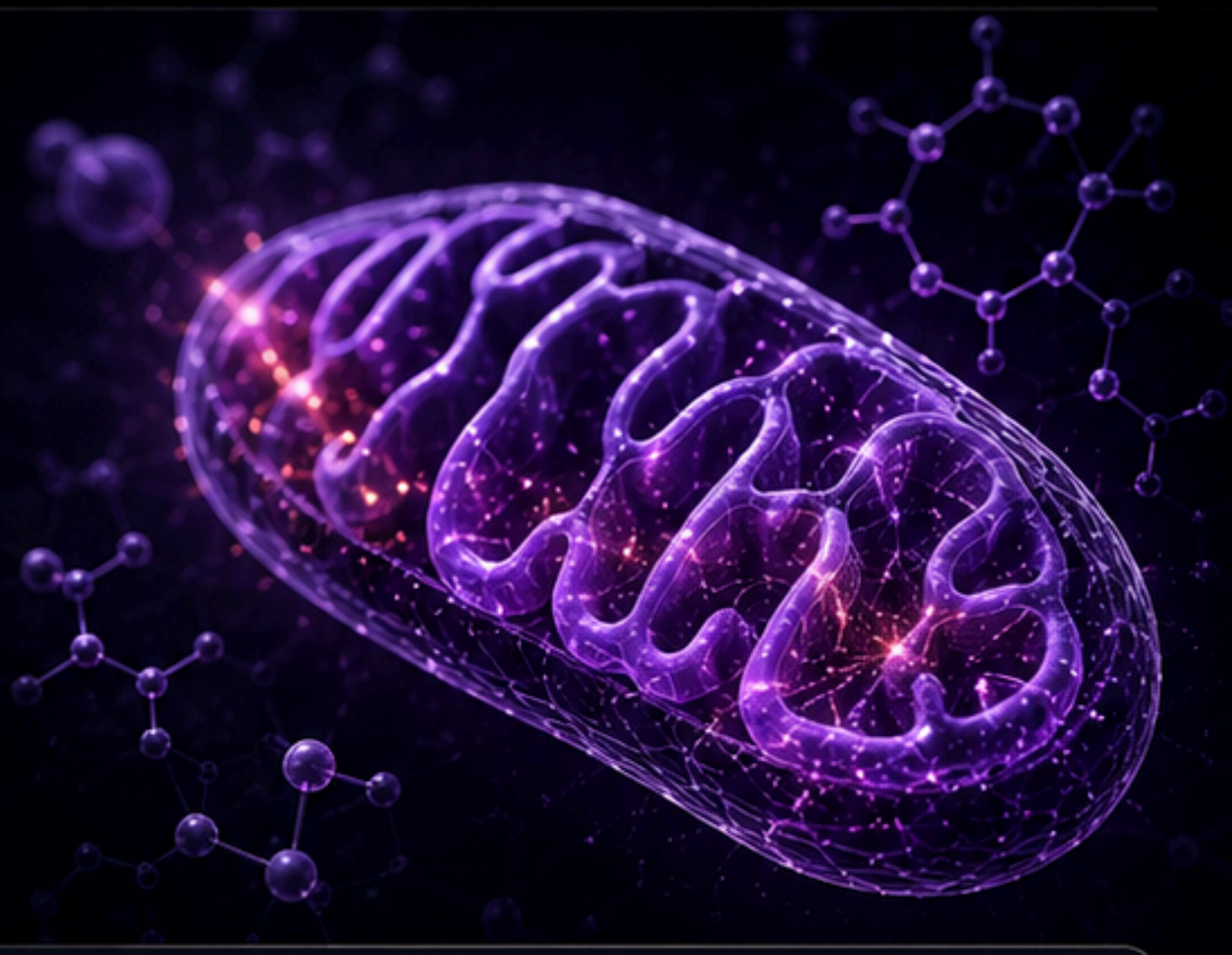
WHY THIS MATTERS

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 (Elamipretide)

Targets cardiolipin to stabilize mitochondrial membranes and improve electron transport.

Enhances mitochondrial efficiency and protects against oxidative stress.



MOTS-C

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

Improves insulin sensitivity and metabolic flexibility.



5-Amino-1MQ

NAD⁺ precursor that supports NAD⁺ biosynthesis and mitochondrial respiration.

Boosts cellular energy and mitochondrial function.



SLUPP-32X (SLU-PP-322)

Novel compound that enhances mitochondrial ATP production and biogenesis.

Improves endurance, recovery, and cellular energy capacity.



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.

ASCENDA LABS

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.



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

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

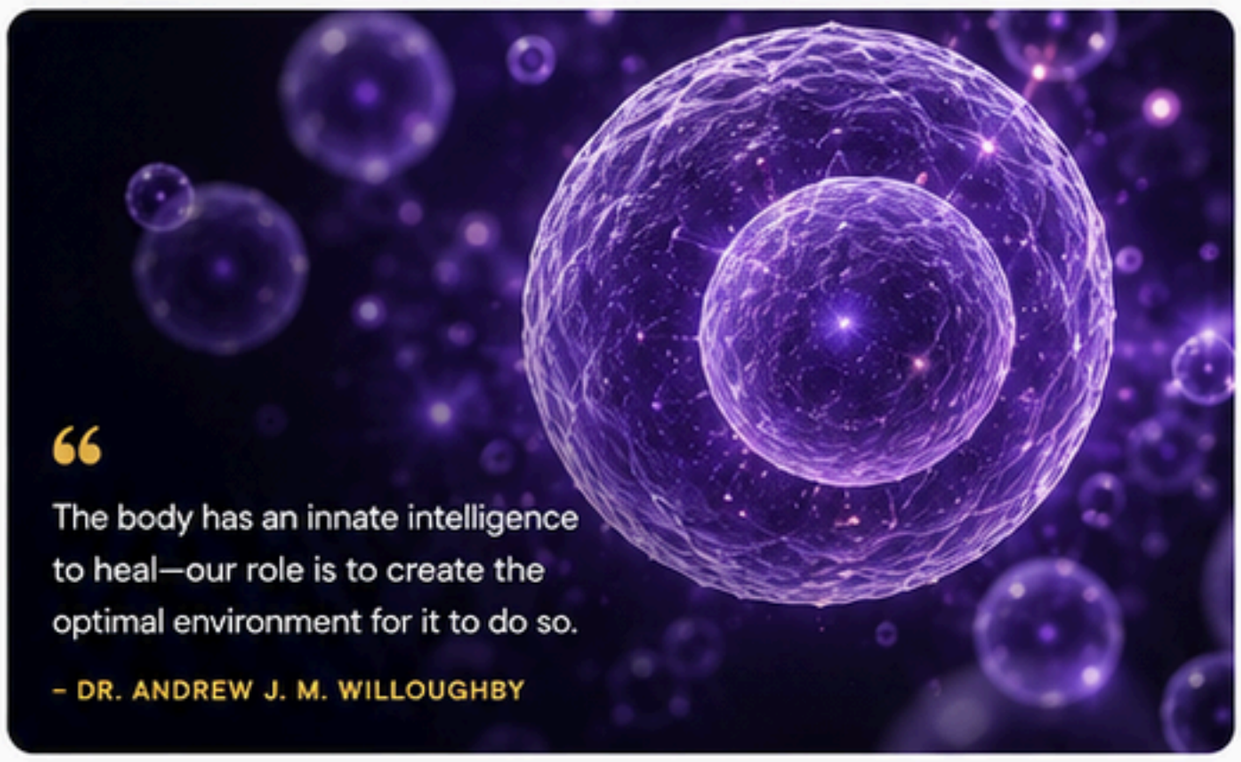
© 2024 Ascenda Labs. All Rights Reserved.

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.



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.

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

© 2024 Ascenda Labs. All Rights Reserved.

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.



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

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

LONGEVITY BIOMARKERS IMPACTED

- VO_2 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) ↓

SYSTEMS ENHANCED

CARDIOVASCULAR | BRAIN & NERVOUS SYSTEM | IMMUNE SYSTEM
MUSCULAR SYSTEM | CIRCADIAN RHYTHM | CELLULAR ENERGY
AGING & LONGEVITY | GENOMIC STABILITY | OVERALL VITALITY

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.

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

© 2024 Ascenda Labs. All Rights Reserved.

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.



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

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

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 ↑

SYSTEMS STRENGTHENED

IMMUNE SYSTEM | INFLAMMATORY RESPONSE | GUT INTEGRITY
RESPIRATORY DEFENSE | ANTIMICROBIAL DEFENSE | RECOVERY & HEALING
CELLULAR ENERGY | NEUROIMMUNE BALANCE | LONGEVITY SIGNALING

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.

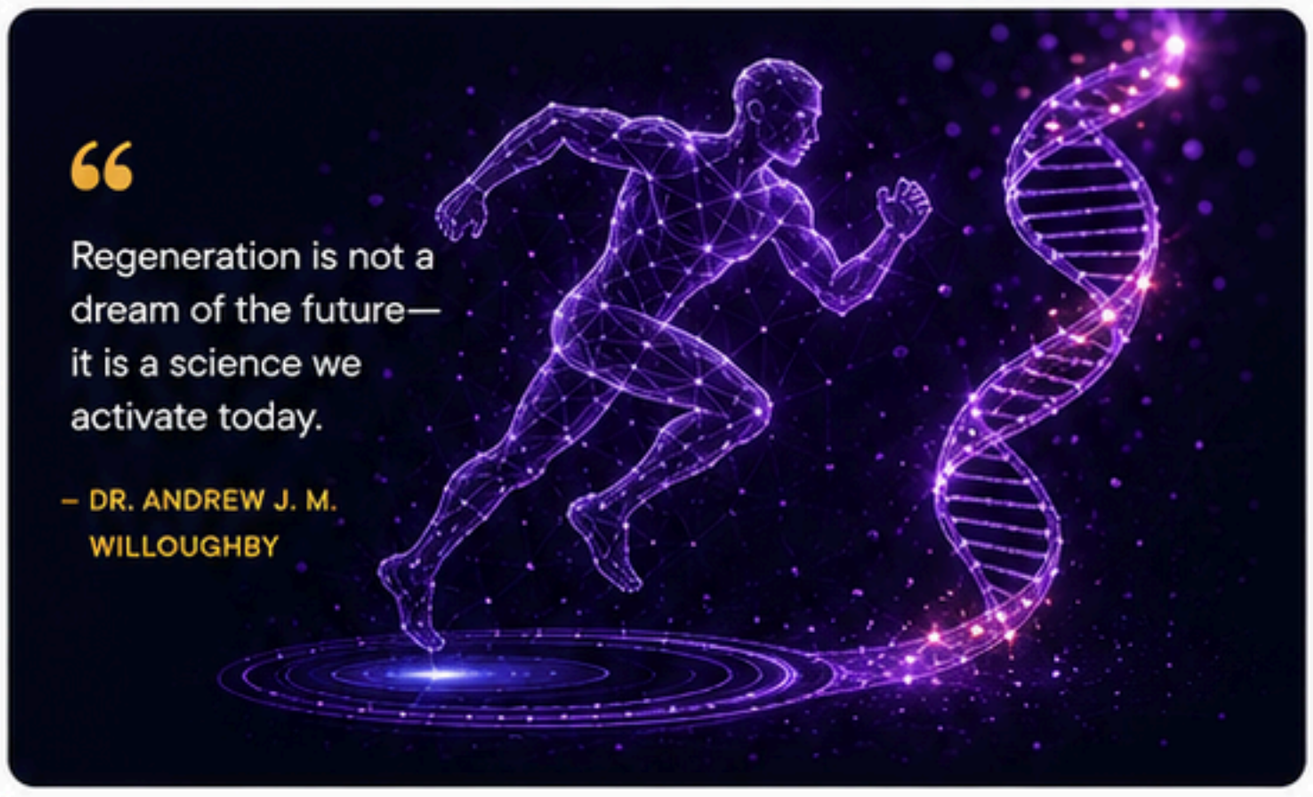
© 2024 Ascenda Labs. All Rights Reserved.

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.



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 endogeneus 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 ↑

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.

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

© 2024 Ascenda Labs. All Rights Reserved.

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.



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

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

METABOLIC BIOMARKERS OPTIMIZED

Targeted improvements typically observed:

Fasting Insulin	↓
Fasting Glucose	↓
HbA1c	↓
Triglycerides	↓
HDL Cholesterol	↑
LDL Particle Size	↑
VO_2 Max	↑
Mitochondrial DNA Copy Number	↑
Lactate Threshold	↑
Body Composition (Lean Mass)	↑
Mental Focus & Endurance	↑

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.

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

© 2024 Ascenda Labs. All Rights Reserved.

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

NEUROGENESIS & SYNAPTIC SUPPORT
Stimulate the growth of new neurons and strengthen synaptic connections.

NEUROTRANSMITTER BALANCE
Optimize dopamine, serotonin, GABA, and acetylcholine for cognitive harmony.

NEUROPROTECTION & ANTIOXIDANT DEFENSE
Shield neurons from oxidative stress and excitotoxicity.

CEREBRAL BLOOD FLOW & OXYGENATION
Enhance microcirculation and oxygen delivery to the brain.

STRESS RESILIENCE & SLEEP QUALITY
Regulate cortisol and support deep, restorative sleep for brain repair.

LONG-TERM BRAIN VITALITY
Promote cognitive resilience and reduce risk of age-related decline.

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 (RMSD) ↑
- Sleep Efficiency ↑
- Mood Stability ↑
- Neuroinflammation Markers (IL-6, TNF-α) ↑
- Oxidative Stress Markers (8-OHdG) ↑

BRAIN SYSTEMS SUPPORTED

MEMORY & LEARNING | FOCUS & CONCENTRATION | SYNAPTIC PLASTICITY | NEURO-PROTECTION

CERERBAL CIRCULATION | SLEEP & RECOVERY | MOOD & EMOTIONAL BALANCE | LONG-TERM COGNITIVE VITALITY

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.

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

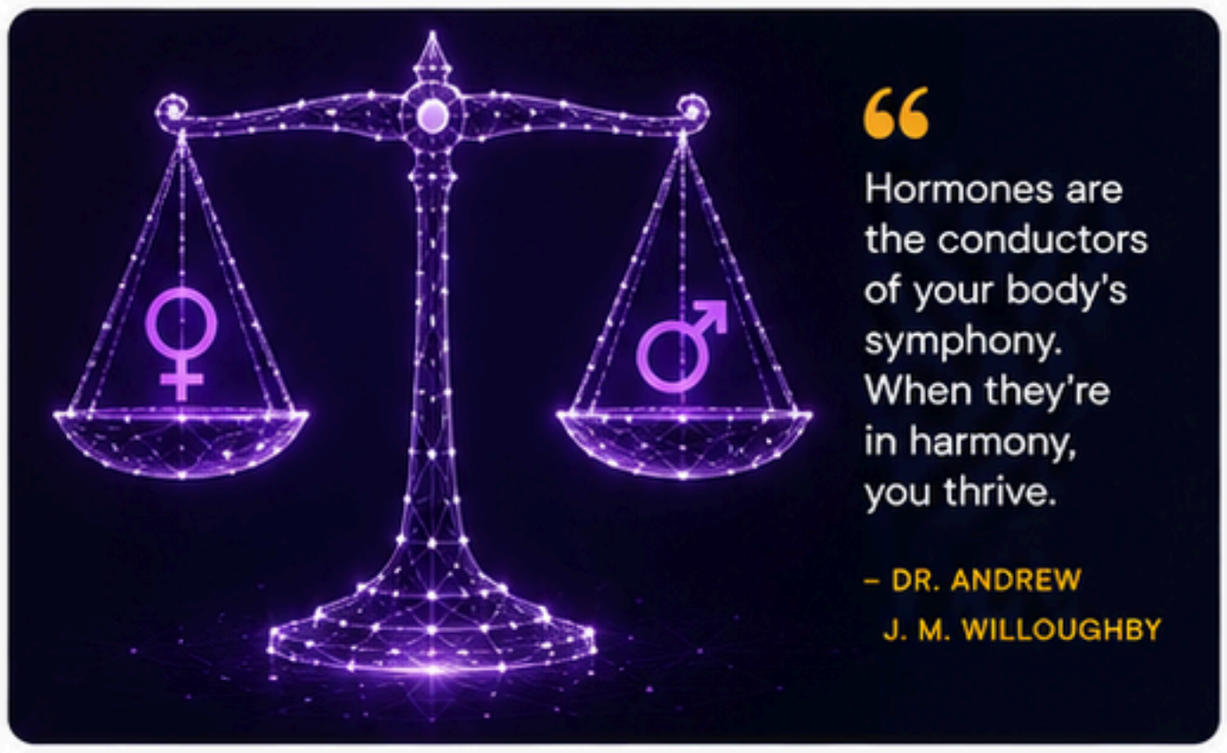
© 2024 Ascenda Labs. All Rights Reserved.

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.



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 endogeneus 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

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

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

PHASE 8 OUTCOMES

- Optimized sex hormone balance and libido.
- Improved energy, mood, and stress resillence.
- 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.

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

© 2024 Ascenda Labs. All Rights Reserved.

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

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
NMN + Trans-Resveratrol 24,000
Elevates NAD+, fuels mitochondria, and activates longevity genes.

SIRTUIN & EPIGENETIC ACTIVATION
Resveratrol, Fisetin, TA-65®, Spermidine
Activates sirtuins, supports autophagy, and promotes cellular renewal.

BRAIN & COGNITIVE SUPPORT
NMN, Fisetin, Spermidine, TA-65®
Enhances memory, focus, neuroprotection, and mental performance.

ANTIOXIDANT PROTECTION
Resveratrol, Fisetin, Quercetin, Glutathione
Neutralizes oxidative stress and supports DNA, immune, and cellular defense.

METABOLIC & PERFORMANCE SUPPORT
Berberine, Creatine, Taurine, Magnesium L-Threonate
Supports metabolism, muscle function, recovery, and physical performance.

HEALTHSPAN AMPLIFICATION
All-in-one synergy for extended healthspan, vitality, and quality of life.

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 & cardiovarclar 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 anticoxidant, 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.

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

© 2024 Ascenda Labs. All Rights Reserved.

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.



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
- Headache
- Fatigue
- Nausea
- Water retention
- Sleep disturbances

Your medical team will guide you through safe management strategies.

PHARMACEUTICAL-GRADE QUALITY ASSURANCE

SOURCING → Only pharmaceutical-grade raw materials from trusted, vetted suppliers.

MANUFACTURING → cGMP-certified facilities adhere to strict quality and hygiene standards.

THIRD-PARTY TESTING → Every batch is tested by independent laboratories for purity & potency.

HEAVY METAL & MICROBIAL SCREENING → Ensuring products are free from contaminants and safe for long-term use.

FINAL RELEASE → Only batches that meet or exceed our standards are released to you.

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

GMP CERTIFIED · LAB TESTED · NPN APPROVED · MADE IN CANADA

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.

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

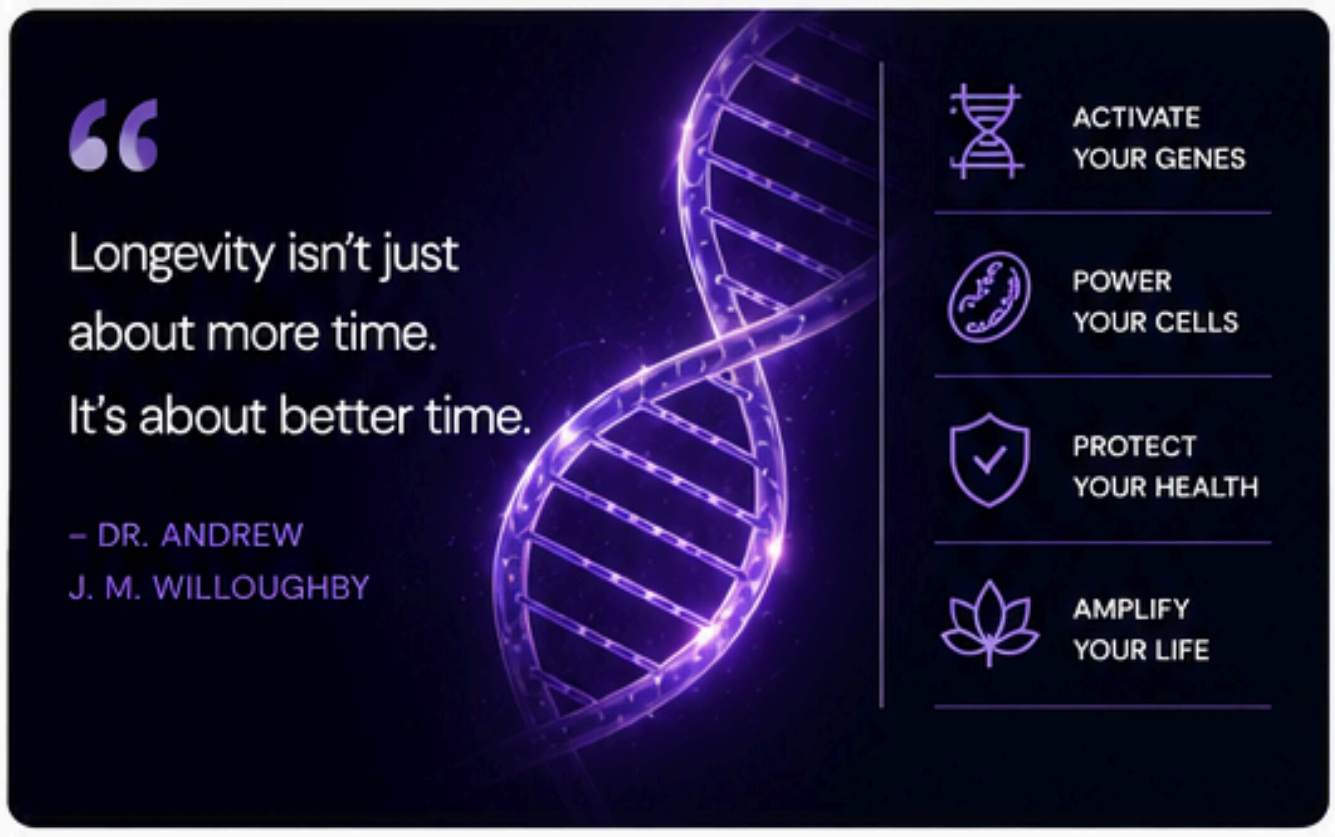
© 2024 Ascenda Labs. All Rights Reserved.

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.



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

1. **CONSULT**
Work with your healthcare professional to personalize your Elite MEOP™ Protocol.

2. **START SLOW**
Introduce compounds gradually as recommended to assess tolerance and synergy.

3. **CONSISTENCY IS KEY**
Daily commitment yields long-term results.

4. **MONITOR & ADAPT**
Track progress, biomarkers, and how you feel. Adjust as needed.

5. **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.

All compounds are for laboratory research purposes only. Not for human consumption.
This protocol is not intended to diagnose, treat, cure, or prevent any disease.

© 2024 Ascenda Labs. All Rights Reserved.

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)	VO_2 MAX (FITNESS AGE 41–45)	GRIP STRENGTH (AVERAGE)	BOLT SCORE (BIOLOGICAL OPTIMAL LONGEVITY TIME)	BREATH HOLD (CO_2 TOLERANCE)
39.7	58.6 ml/kg/min	166/165 LBS	52 SECONDS	2:07 MINUTES
CALENDAR AGE: 65 -25.3 YEARS YOUNGER	SUPERIOR CARDIOVASCULAR FITNESS	EXCEPTIONAL UPPER BODY STRENGTH	EXCELLENT SYSTEM RESILIENCE	SUPERIOR RESPIRATORY EFFICIENCY

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
- Testostetrone (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

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 2–4 WEEKS
Check-in
Symptom Review
HRV & Recovery Metrics

EVERY 3 MONTHS
Key Biomarker Review,
Performance Testing
Protocol Adjustment

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.

MEASURE – Collect accurate data.
→ **ANALYZE** – Identify trends and opportunities.
→ **ADAPT** – Make precise adjustments.
→ **OPTIMIZE** – Enhance results and long-term outcomes.
→ **THRIVE** – Live longer, stronger, and better.

All compounds are for laboratory research purposes only.
Not for human consumption. This protocol is not intended to diagnose, treat, cure, or prevent any disease.

© 2024 Ascenda Labs. All Rights Reserved.

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	SCIENCE LED	SYSTEMS INTEGRATED	ADAPTIVE BY DESIGN	LONGEVITY OUTCOMES
Data-driven and individualized	Evidence-based and peer informed	Multi-pathway optimization	Continuously monitored and adjusted	Extend healthspan. Maximize potential.

THE 8 PILLARS OF ELITE MEOP™

1 MITOCHONDRIAL HEALTH & ENERGY PRODUCTION

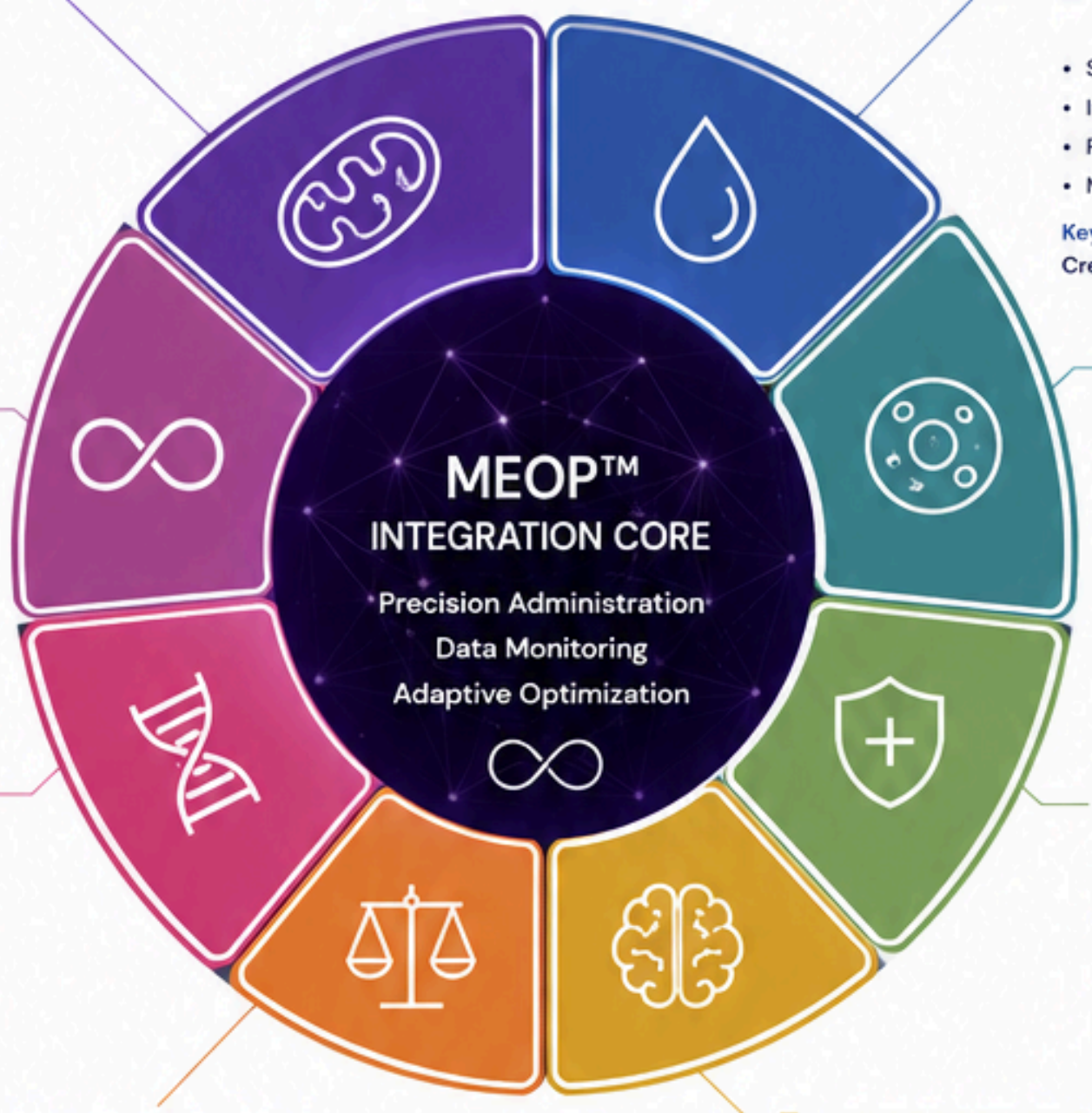
- Enhance mitochondrial biogenesis
- Improve NAD+ metabolism
- Optimize cellular ATP production
- Reduce oxidative stress

Key Compounds: NMN + Trans-Resveratrol 24,000, Creatine, CoQ10, PQQ, Urolithin A, Taurine, Magnesium L-Threonate

2 METABOLIC OPTIMIZATION & INSULIN SENSITIVITY

- Support healthy glucose metabolism
- Improve insulin signaling
- Promote metabolic flexibility
- Maintain healthy body composition

Key Compounds: Berberine, NMN, Creatine, Taurine, Omega-3, Chromium



3 REGENERATIVE REPAIR & TISSUE RENEWAL

- Activate tissue regeneration
- Support collagen & extracellular matrix repair
- Enhance stem cell signaling

Key Compounds: Peptides (GHK-Cu, Epitalon, Thymosin, Follistatin), Collagen, Glutathione, MSM

4 IMMUNE RESILIENCE & INFLAMMATION CONTROL

- Modulate immune response
- Reduce chronic inflammation
- Strengthen immune resilience

Key Compounds: Quercetin, Omega-3, Vitamin D3 + K2, Zinc, Curcumin

5 NEUROCOGNITIVE HEALTH & MENTAL PERFORMANCE

- Protect neuronal health
- Enhance memory & focus
- Support mood & sleep quality

Key Compounds: Fisetin, Lion's Mane, Magnesium L-Threonate, Omega-3, Phosphatidylserine

6 ENDOCRINE BALANCE & HORMONAL OPTIMIZATION

- Optimize hormone production
- Support thyroid & adrenal health
- Maintain hormonal harmony

Key Compounds: Vitamin D3 + K2, Zinc, Selenium, Iodine, Magnesium

7 EPIGENETIC REGULATION & GENE EXPRESSION

- Activate longevity genes (sirtuins)
- Support epigenetic methylation balance
- Protect telomere integrity

Key Compounds: NMN + Trans-Resveratrol 24,000, Fisetin, Epigallocatechin Gallate (EGCG), Sulforaphane, Trimethylglycine

8 LONGEVITY & HEALTHSPAN AMPLIFICATION

- Extend healthspan & vitality
- Improve resilience & recovery
- Promote quality of life

Key Compounds: Comprehensive synergy of all pillars working in harmonized balance

HOW IT ALL WORKS TOGETHER

ACTIVATE Longevity Genes (Sirtuins, FOXO, AMPK) → **OPTIMIZE** Cellular Energy & Metabolic Pathways → **PROTECT** Cells, DNA & Telomeres from Damage → **REPAIR & RENEW** Tissues, Systems & Biological Functions → **AMPLIFY** Healthspan, Performance & Vitality → **LIVE LONGER. LIVE BETTER. A NEW YOU.**

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

All compounds are for laboratory research purposes only. Not for human consumption.
This protocol is not intended to diagnose, treat, cure, or prevent any disease.

© 2024 Ascenda Labs. All Rights Reserved.

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

This protocol is for informational and educational purposes only.
It is not intended to diagnose, treat, cure, or prevent any disease.
Always consult with a qualified healthcare professional before beginning any new protocol.

ASCENDA LABS

© 2024 Ascenda Labs. All Rights Reserved.