Experience the power of
True Ashwagandha

Customer unmet needs

- Minimal / Low dose – Less is better
- Superior in efficacy
- Endurance & Stress
- Regulatory compliance & Safety
- Early onset of action
- Product that works
- Strictly Root
- True Sustainability

Reference: eKline

Quest to meet the unmet needs

Master : Adaptogen

01 Endurance & Stress: State of Non-Specific Resistance (SNSR)

02 Adaptogens exhibit SNSR

03 Potential of adaptogens to work in multiple stress situations

Common Name
Ashwagandha

Botanical Name
Withania somnifera

Ancient Wisdom
4000 years

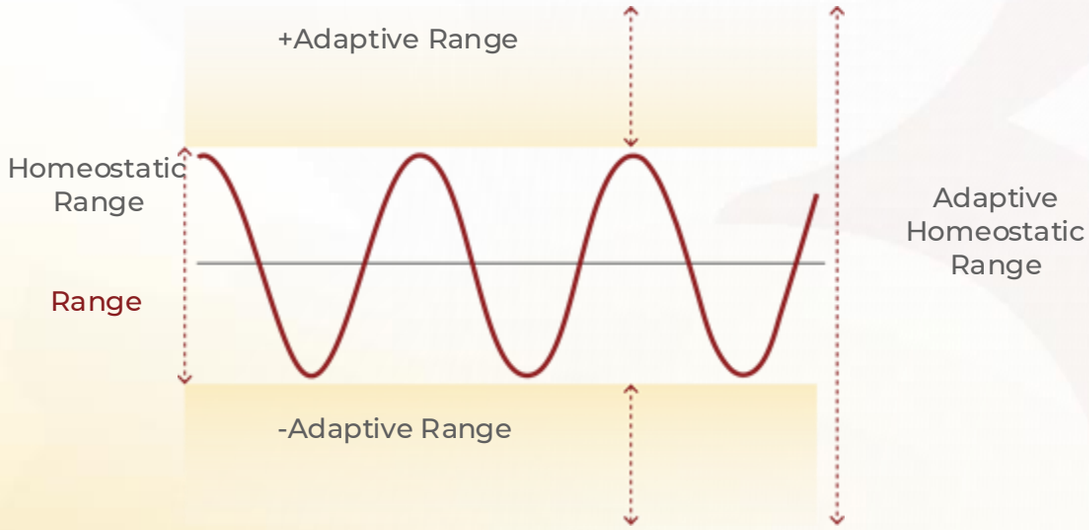
Benefits
Endurance, Stress & Fatigue

Important Plant Part
Strictly Root

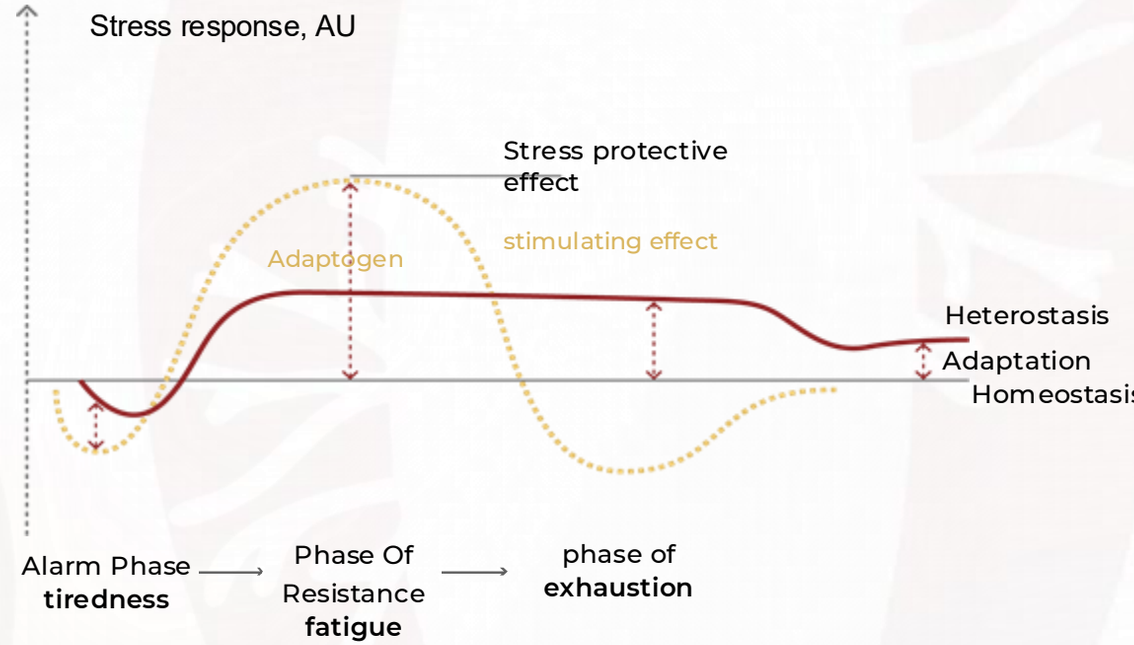
Adaptogen Properties : Effects on Stress and Endurance

Heterostasis - Adaptogens lead to an enhanced state of adaptation called Heterostasis

Stress physiology



Stress response and modulation Of general adaptation syndrome



01
Help the body become more resistant to stress.

02
Help reduce sensitivity to stress triggers

03
Protect the body from the negative effects of stress.

04
Help maintain homeostasis for a longer time.

05
Help prevent the body from quickly reaching exhaustion.

06
Better balance leads to stronger stress adaptation.

Ref : A Panossian Annals of the NYAS ; 2017

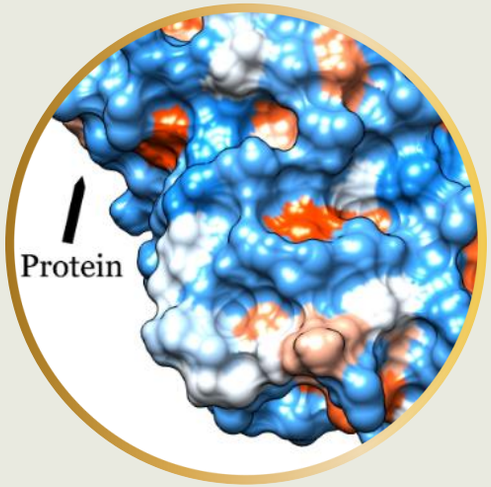
Our Philosophy

Blending **traditional knowledge** with **modern technology** for **precision phytogenics**

B.O.T™

Bioactive Optimization Technology ™

IN-SILICO APPROACH



Molecular docking

Predictive transcriptomics via gene expression

Next-gen Patented B.O.T™

Bioactive Optimization Technology™ (B.O.T) is a patented proprietary, state of art technology that combines chemistry and biological sciences for delivering a bioactive optimized extract that works at low dose with high bioactivity.

Low Dose

Targeted efficacy and consistency

Precision in elucidation of MOA

Precision in application of products

Discovery Phase

01

Raw Material
(Ashwagandha Roots)

02

Designing Lead
Multiple extractions -
Alcohol,
Non-polar
Hydroactives;
their combinations

03

Iterative investigation
Mathematical models;
Predictive
transcriptomics;
Biology models

04

Lead finalization based on the product features and benefits

Optimization Phase

05

Chemistry studies -
Optimizing extraction process based on temp, pressure, ratio, time, particle size, etc

06

Biology models
Precision Dose.
Loss of function etc.

Ashwa.30™

New-Age Bioactive Optimization Technology (B.O.T ™)

Ashwagandha, a classical ***Adaptogen*** is upgraded with Bioactive Optimization Technology™

Patent pending: 202541047628

Mathematical model – Data Set

L9 Orthogonal Array	Extract A	Extract B	Extract C
Level 1	5	35	40
Level 2	2.5	25	20
Level 3	0	45	30

Mathematical model – Data Set

L9 Orthogonal Array	Design no				Layout			
Analysis No	1	2	3	4	Extract A	Extract B	Extract C	Total
1	1	1	1	1	5	35	40	80
2	1	2	2	2	5	25	20	50
3	1	3	3	3	5	45	30	50
4	2	1	2	3	2.5	35	20	57.5
5	2	2	3	1	2.5	25	30	57.5
6	2	3	1	2	2.5	45	40	87.5
7	3	1	3	2	0	35	30	65
8	3	2	1	3	0	25	40	65
9	3	3	2	1	0	45	20	65

Mathematical model – Data Set

Analysis	Ext A	Ext B	Ext C	Total	R1	R2	R3	R4	R5	R6	Avg.	Std. dev.
1	5	35	40	80	2.23	1.79	2.16	2.08	2.13	2.18	2.1	0.16
2	5	25	20	50	1.19	1.36	1.04	1.24	1.56	1.49	1.31	0.195
3	5	45	30	80	1.51	1.41	1.34	1.12	1.86	1.19	1.4	0.265
4	2.5	35	20	57.5	1.41	1.36	1.41	1.86	1.64	1.56	1.54	0.187
5	2.5	25	30	57.5	1.93	2.26	2.16	2.16	2.18	2.23	2.15	0.115
6	2.5	45	40	87.5	2.13	2.23	2.21	2.03	1.71	2.08	2.07	0.189
7	0	35	30	65	1.93	2.11	2.23	1.49	2.23	2.11	2.02	0.281
8	0	25	40	65	2.16	1.41	2.08	1.49	1.79	2.13	1.84	0.333
9	0	45	20	65	1.98	2.16	2.08	2.01	2.03	2.08	2.06	0.063

Uniqueness of B.O.T

Classical methods to reduce dose

Concentration

- Higher concentration of actives
- May lead to toxicity.

Formulation/pharmaceutics

- Enhancing bioavailability
- Altering pharmacokinetics

B.O.T™

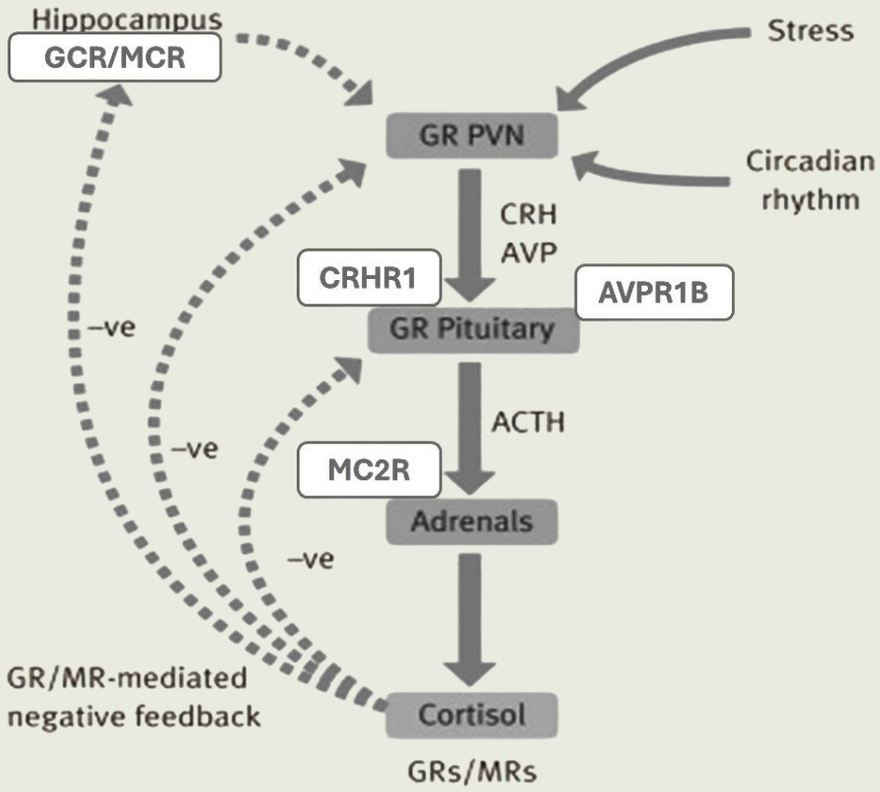
Bioactive Optimization Technology™

Optimization of bioactive chemistry

- Intelligent combinations of fractions to achieve optimization for low dose
- Synergistic actions invivo – for efficacy.

Molecular Docking Molecular basis of HPA axis (stress response axis)

The hypothalamic–pituitary–adrenal (HPA) axis



GR, glucocorticoid receptor; MR, mineralocorticoid receptor; PVN, paraventricular nucleus; AVP, arginine vasopressin; CRH, corticotrophin-releasing hormone; ACTH, adrenocorticotrophic hormone.

Protein targets used:

- CRHR1
- AVPR1B
- MC2R
- MCR
- GCR

Ligands used
(Holixer™ compounds)

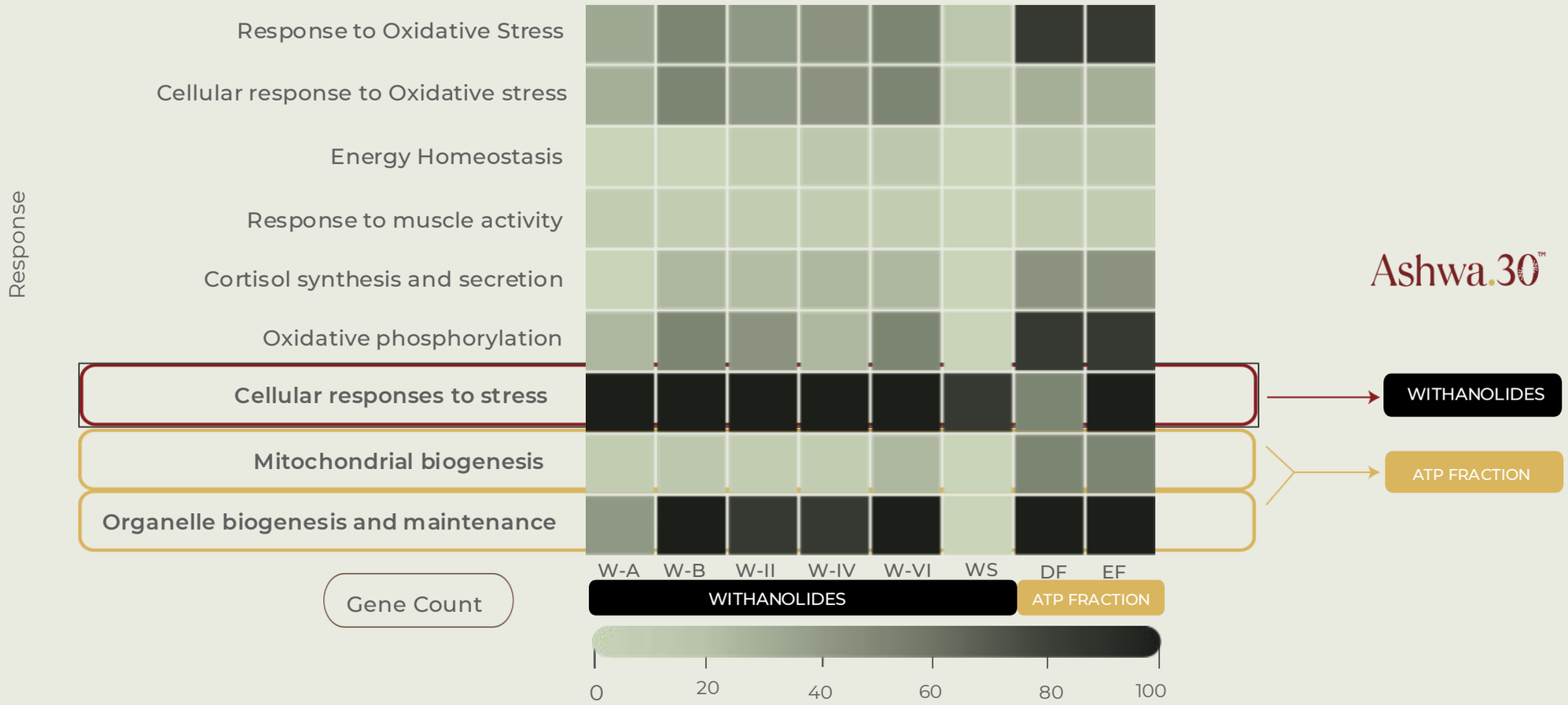
- Apigenin
- Luteolin
- Rabdosin
- Rosamarinic acid
- Ociglycoside

Software/database:

- Protein sequence obtained from: Uniprot
- Molecular docking software used: CB dock2
- 3D protein structure software: Alphafold

Predictive Transcriptomics

Via Gene Expression



Driving progress through sustainable initiatives

Waste management

Committed to reduced waste generation and recyclable packaging material usage.

Energy conservation

We aim to power 75% of our operations with renewable energy including solar panels and non-conventional fuel-fired boilers.

Pioneering organic agriculture

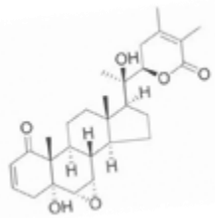
We are firm believers in the "conservation through cultivation" approach to biodiversity preservation.

Phytochemistry

Ashwa.30™

Patent pending: 202541047628

30@30: Ashwa Bioactive Complex (ABC)



Withanolides

>15%

w/w HPLC
Modified USP method

Ashwa.30™

ATP Active Fraction

>15%

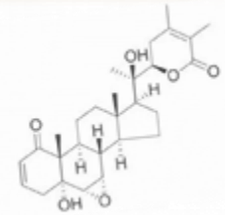
Preclinical studies
Predictive transcriptomics

Anti-stress

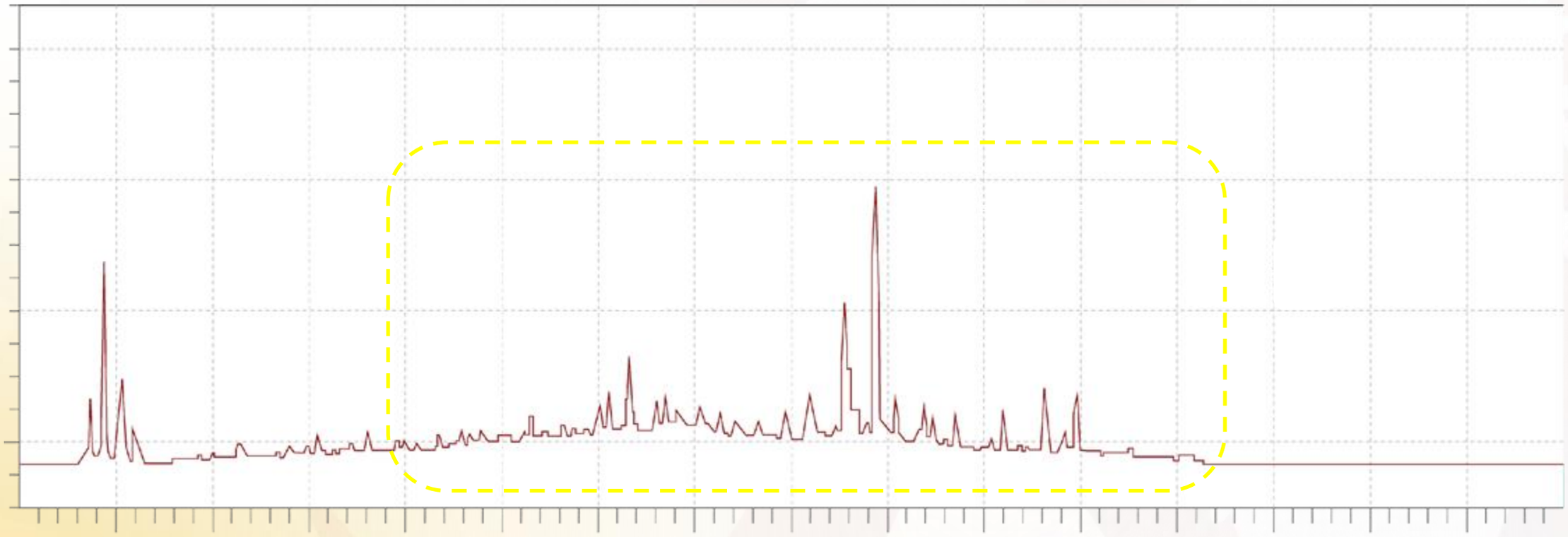
Endurance Enhancement

Ashwa.30™ Chromatogram

>15% w/w HPLC modified USP method



TOTAL WITHANOLIDES



HPLC CHROMATOGRAPHIC CONDITIONS= USP

FULL SPECTRUM WITHANOLIDES IDENTIFIED

Third Party validated

ATP Active Fraction

>15%

Phytoactives

Arabinogalactan
Secondary metabolites (Ferulates, Saponins and phenolics)

Unique Standardization For “Entire Fraction”

For batch-to-batch consistency

Chemical Fingerprint For “Entire Fraction”

TLC & HPLC for entire fraction

Third Party validated

Ashwa.30™ Pre-clinical

Plant Part	Solvents	Benefits:	Smallest Dose	Efficacy
Strictly Root	Ethanol & water	Endurance & Stress	30 mg	Within 1 to 3 days

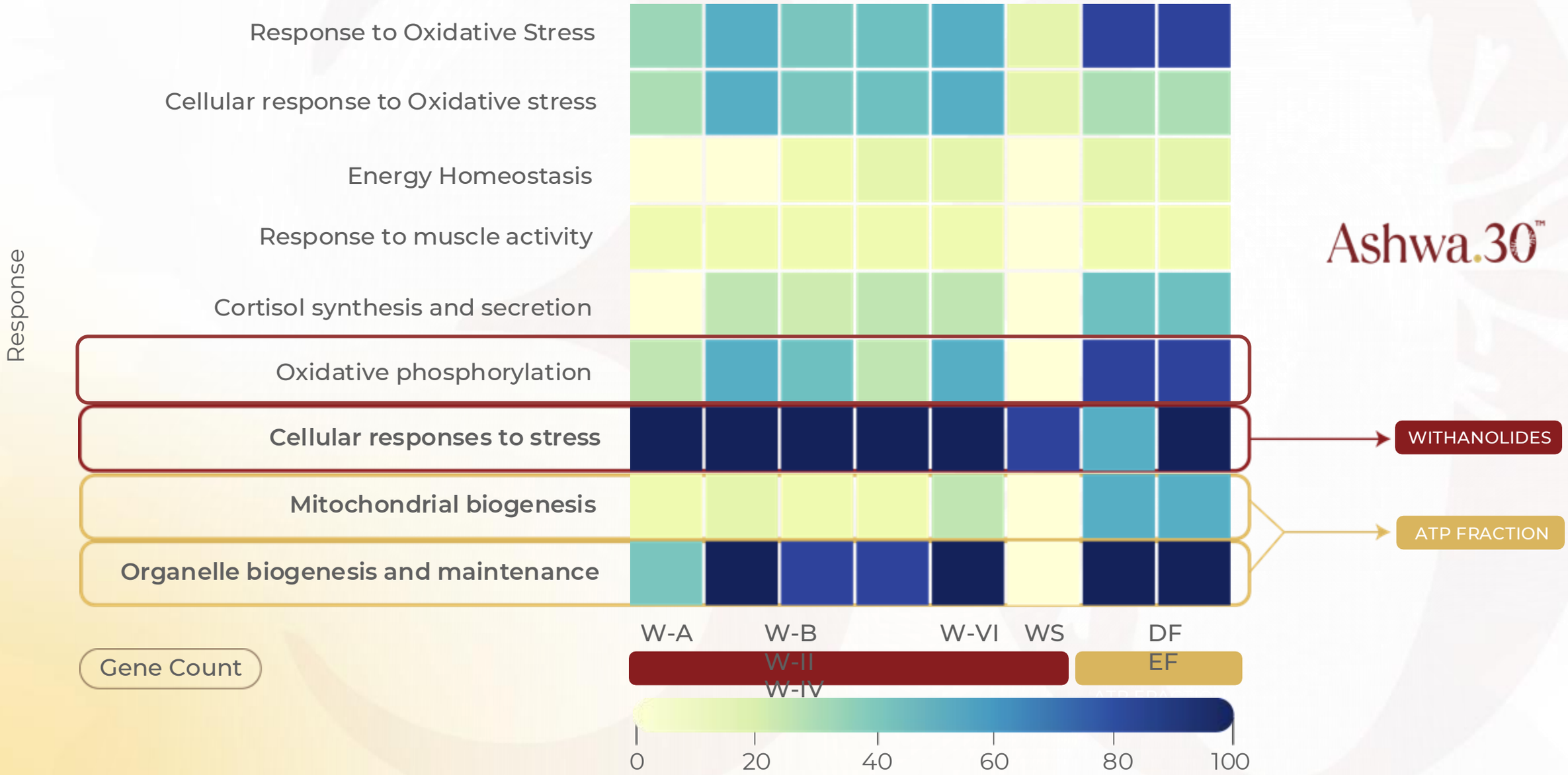
Patent pending: 202541047628

Pre-clinical : **Results**

Low dose: 30 mg HED **Duration:** 1 to 3 days

Indication	Model		Outcome	
Stress	Forced Swim test- Corticosterone level		53%	Reduction in Corticosterone
Endurance	Treadmill test		105.6% over control	Increase in Endurance
Anxiety	Light and dark chamber test		32%	Anxiety reduction

Predictive transcriptomics : Gene Expression



Safety of Ashwa.30™

STRICTLY ROOT

Patent pending: 202541047628

Safety Studies of Ashwa.30™

Clinical safety Hematology

AST	LDH	BUN	Cholesterol
ALT	Glucose	Creatinine	Triglycerides

Clinical safety Adverse events

Both clinical studies has shown no major adverse events

Did not show significant changes post treatment

Preclinical LD50 > 5g

Indicates high safety margin for a substance with 30 mg/ day human dose

AMES test

No genotoxicity

Full battery of tox studies under GLP

WIP

Why Ashwa.30™?

Smallest Dose
30 mg/day

Smartest Science
B.O.T ™

Endurance & Stress
Evidence-based clinical and pre-clinical results

Safest Profile
Low dose + high LD 50

Ashwa.30™

Plant Part use
Strictly Root

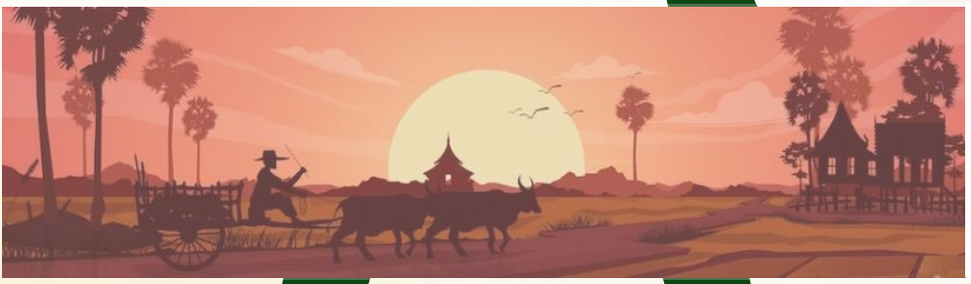
Compliance &
Convenience

Sustainability
Cultivated roots

STRICTLY ROOT

EXPERIENCE TRUE ASHWAGANDHA

Sustainability is the way of our life



Herb Secure ™ Program

01 Good Collections Practices

02 Good Agricultural Practices

03 Good Manufacturing Practices

04 Good Laboratory Practices

05 Good Quality Practices

Trusted by global leaders

natural REMEDIES

Metagenics
atom美
BAYER
HERBALIFE NUTRITION
SCHWABE
TRADITIONAL MEDICINALS
herbarium
Yakult

SANOFI
BLACKMORES Australia's No.1 Brand
NUTRALIFE
Dr. Hittich
NATURE'S BOUNTY
Caruso's NATURAL HEALTH
NutriVital
BioCeuticals

SUNDAY NATURAL
AMOREPACIFIC
Green Valley Natural Solutions
WILD NUTRITION
purium
ALLNATURALWAY
Dr.Sinatra
Eagle PROFESSIONAL NATURAL MEDICINE

Martin & Pleasance
VITAL PLAN
BIOS LINE
ORTHO MOLECULAR PRODUCTS Because Efficacy Matters
GlycoLife SCIENCES
Nature's Sunshine
Stonehenge HEALTH

Coca-Cola
LifeExtension
Researched Nutritionals solutions for life
nutri ADVANCES
Nutrisan Nutraceuticals
FUSION health ancient wisdom modern medicine
Walmart
Swiss natural
STOP AGING NOW For a Longer, Healthier Life

Continuing to create

Best-in-Class Products,

while keeping the environment and people happy.

Thankyou!

True Ashwagandha is here

Ashwa.30™

Experience True Ashwagandha

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