

NEW TECHNOLOGY

NEW SCIENCE

NEW SOURCE

NEW FORM

ANCIENT PROVENANCE



HYDRASPHERE™

DEEP SEA LIQUID MAGNESIUM, MINERALS AND TRACE ELEMENTS

2025 Human
Clinical Trials
Transdermal
& Oral



Anti-Aging
Skin
Microbiome
Epigenetics
Anti
Inflammaging

Mutually
Supportive
Microbiome
Protective

SKINCARE – HAIRCARE

PATENTED – PROTECTED – PROVEN – SUSTAINABLE



- Established since 2012
- Supplying leading brands (EU, UK, USA)
- Skincare, Suncare, Nutrition, Healthcare
- Science Driven Co. (7 Years, Published)
- Globally Patented Technology
- Magnesium & Minerals Innovation



The point of **Tectonic crash** of continents of **Americas & Eurasia** 400 Million Years Ago and the **formation** of the Island of **Ireland**

- Port Oriel, Co. Louth Ireland
- Natural, Sustainable, Organic , ISO
- EU Protected Deep Sea Source of Minerals (PDO, Only Co in EU)
- Millenia of History and Provenance
- Pristine & Protected Deep Sea Source



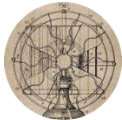
Deep Sea Magnesium, Minerals & Trace Elements



Clinical science, 7 years published



Sustainable skincare & nutrition



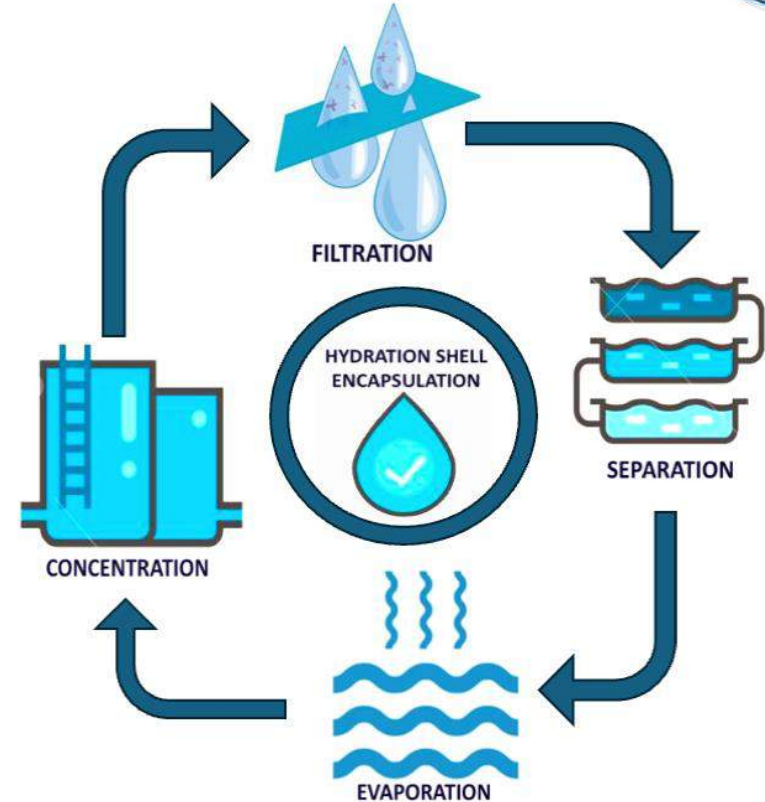
Patented Technology in 29 countries



EU Protected Deep Sea Source,



Organic, Natural, Pure



Oriel Magnesium Minerals & Trace Elements – More than you think – With less that you thought.

We Need Magnesium



- Skin Health and Repair
- Cell Formation & Regeneration
- Energy Metabolism
- Cardiovascular Health
- Inflammation Control
- Neural Synapsis
- Cell & Nerve Tissue function
- Muscle Repair & Regeneration

For More than You think



- Epigenetics – Anti Aging
- Anti Inflammaging
- Upregulating Collagen
- Upregulating Hyaluronic Acid
- Skin Biome Protective
- Skin Immune Protective
- Vitamin D & Bs Absorption
- DNA & RNA - Messaging

More than Magnesium



- Magnesium, Minerals +78
- Trace Elements.
- Mutually Supportive.
- Protected Deep Sea Source.
- Liquid Free Ion – Not bound
- Cellular Balance & Ratio
- Natural, unbound form.
- Hydration shell Encapsulation

600 enzymatic processes – 1000's of bio-chemical actions

Hydrasphere™

Magnesium Rich, Mineral & Trace Element Complex

- Evolution of Magnesium, Minerals & Trace Elements
- Free Ion form means efficacy & absorption is faster and more efficient due to lower Molecular weight.
- Liquid Free Ion form (as exists in our cells) protected and bound in their own water Hydration Shell
- Direct absorption in minutes via Transdermal, Oral or Sublingual.

All other forms of Minerals are powder based, mined from the earth and in bound form. (chloride, malate, glycinate etc.) with absorption compromised whether thru transdermal or digestive system absorption.

Why is this Different?

Free Ion Magnesium, Minerals & Trace Elements did not previously exist. **Multiple Patents** Granted in **29 countries**. Most bioavailable form, science proven. **Cellular Synergy** means rapid absorption and superior efficacy through measured functional effect.

THIS CHANGES THE BOUNDARIES OF ABSORPTION & EFFICACY

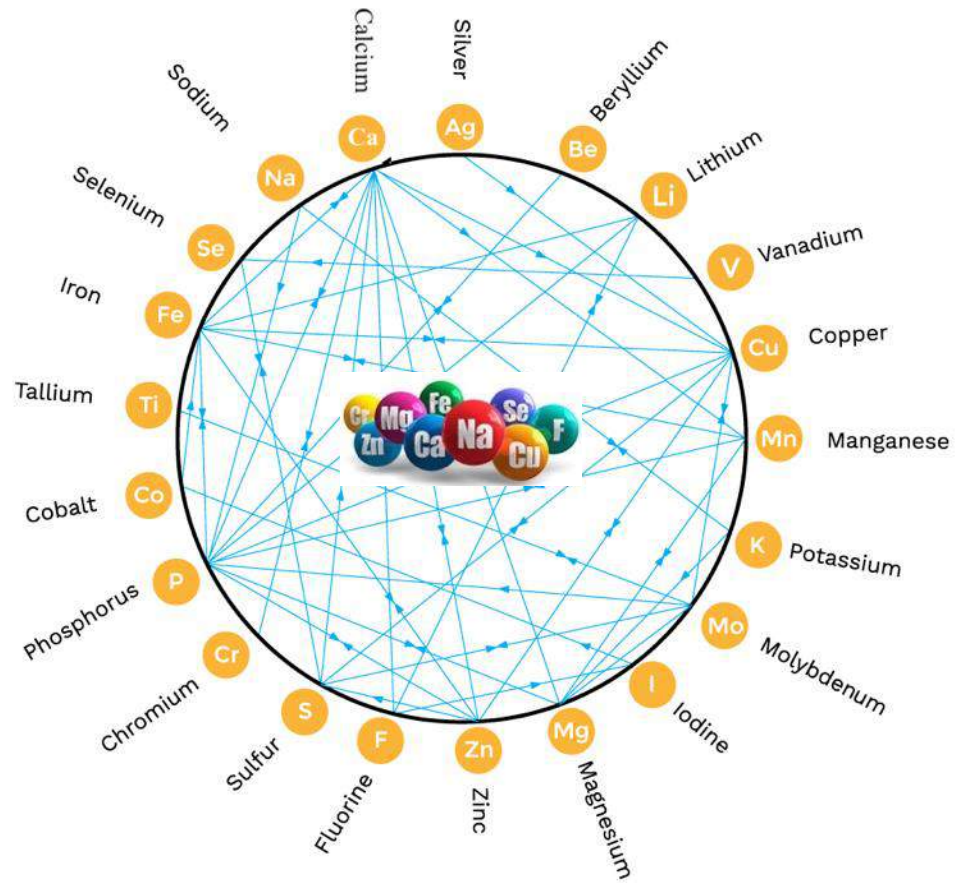
Magnesium and minerals are meant to do all these things within our cells and skin. The benefits to our Skin, Hair and Health are diverse, immense and well documented.

HYDRASPHERE™ MEANS THEY ARE WORKING IN A MUTUALLY SUPPORTIVE MANNER AS THEY DO WITHIN OUR CELLS AND SKIN.

The Missing Link is Mutual

"Oriel Hydrasphere is a unique complex of Magnesium, Minerals and Trace Elements working in a mutually supportive manner that supports rapid absorption for improved cellular functionality, at molecular, cellular and physiological levels"

Dr Ronan P Murphy

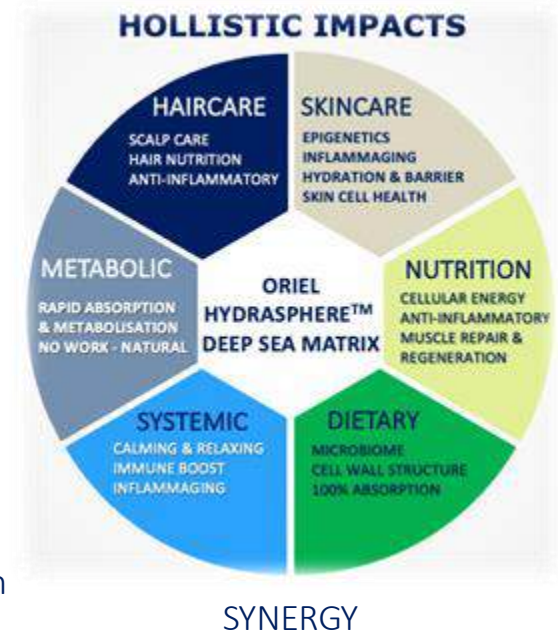


Mutually Supporting at Multiple Levels

Magnesium Rich, Mineral & Trace Element Complex

Minerals in Oriel and their uses in Skincare

- Magnesium - Moisturizers, sensitive dry skin, healing, anti-inflammatory
- Boron - Anti-inflammatory, healing, collagen, elasticity
- Zinc - After sun, spots, acne, anti-inflammatory, antimicrobial
- Sulfur - Anti-bacterial, antifungal, clearing clogged pores
- Potassium - Hydration, moisture retention,
- Calcium - Hydrating, skin structure, skin barrier, moisture retention
- Copper - Collagen & Elastin formation, healing, antioxidant protection.
- Selenium - Powerful antioxidant, oxidative stress & UV damage protection
- Sodium - Many uses in different forms from binding moisture to hydration



Mutually Supportive at every level - Proven

Skin Microbiome – Do NOT MESS WITH THE BIOME – It's unique to every skin

Protect its Environment to allow the Microbiome to Flourish

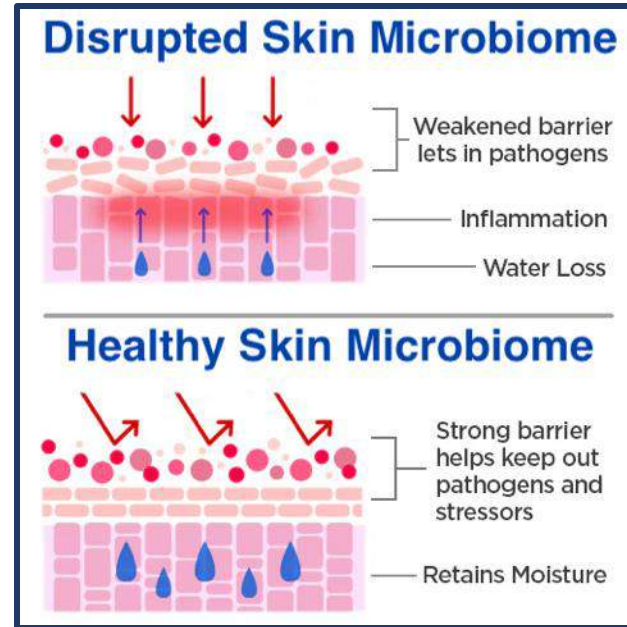
Reduced Inflammation &
Reduce Redness

Regulate Inflammatory
Processes

Anti Stress Cosmetics
and Skincare

Protect against
Environmental Stressors

Reverse Epigenetic
Impacts



Strengthening
Skin Barrier Function

Improve Skin
Hydration & Texture

Boost Skin Immunity
& Defence

Boost Skin Firmness
and Smoothness

Promote an Alkaline
pH Balance

“PLACEBO-CONTROLLED ASSESSMENT OF THE EFFICACY OF A TOPICAL DEEP SEA MAGNESIUM & TRACE ELEMENT COMPLEX AND ITS SYNERGY OF USE WITH A DEEP SEA MAGNESIUM SUPPLEMENT IN IMPROVING SKIN CONDITIONS”

Oriel Magnesium Cream (33 women to one side of face & Placebo to other)

1. Statistically significant improvement in **Skin Elasticity** (R2 parameter) by **3.7%**
2. Statistically significant improvement in **Skin Firmness** (R0 parameter) by **5.4%**
3. Statistically significant decrease in **Crow's Feet Wrinkle Depth** by **-6.9%**
4. Statistically significant improvement in **Skin Smoothness** (Sa parameter) by **-3.3%**
5. Statistically significant decrease in **Skin Redness** (a* parameter) by **8.9%**

Oriel Magnesium Cream & Supplement (11 women applying cream & taking drops)

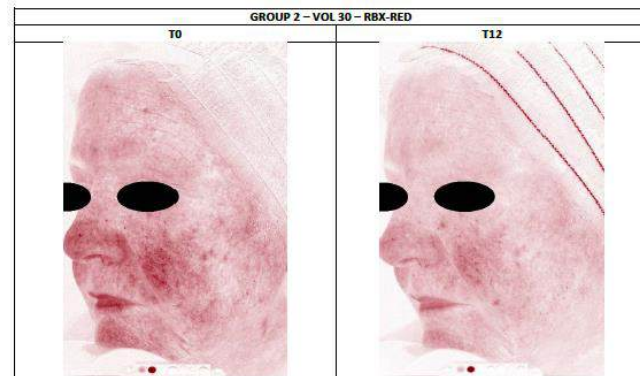
1. Statistically significant improvement in **Skin Elasticity** (R2 parameter) by **4.8%**
2. Statistically significant improvement in **Skin Firmness** (R0 parameter) by **5.3%**
3. Statistically significant decrease in **Crow's Feet Wrinkle Depth** by **-10.0%**
4. Statistically significant improvement in **Skin Smoothness** (Sa parameter) **5.0%**
5. Statistically significant decrease in **Skin Redness** (a* parameter) by **13.2%**

Placebo Cream + Supplement Drops (11 women also taking supplement drops)

- Statistically significant decrease in **Skin Redness** (a* parameter) by **8.2%**

Self Assessment

- Oriel Cream **80% Positive**
- Oriel Cream & Drops **90% Positive**





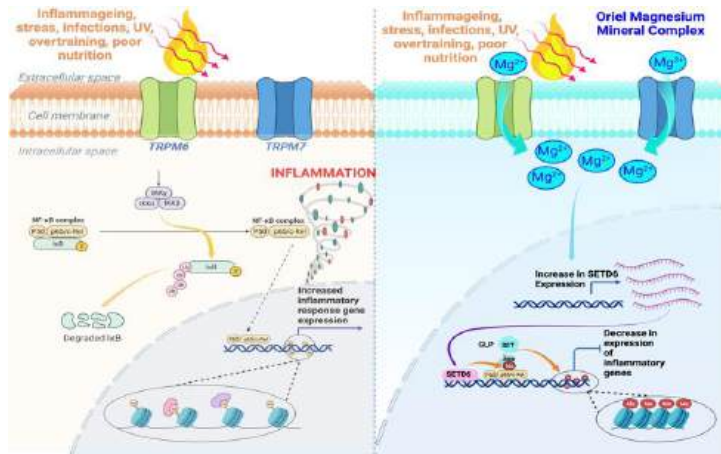
THE SCIENCE IS POWERFUL, PROVEN, PUBLISHED

- Skin barrier function – Improved from Cellular Level
- Skin hydration, pH, TEWL – Improved
- Boosts Collagen & Hyaluronic Acid - Switches on Production
- Anti Aging – Thru Epigenetics – IGF-1 +76 fold in 60 mins
- Skin cell repair and regeneration – EPC's +88% in 28 days
- Anti Inflammatory (Pan Inflammatory Mediator) SETD6
- Regulation of Gene expression – Improved
- Improved skin health, tone, firmness
- Improved healing – Reduced scarring (Burn & Wound)
- Boosts efficacy & absorption of other nutrients and ingredients

Cellular nutrition for
healthier, firmer,
younger looking skin.



Human Placebo Controlled Skin Trials – The In & Out Impact of Oriel
& Multiple LabSkin dynamic 3D living human skin In-Vitro, In-Vivo & Ex-Vivo

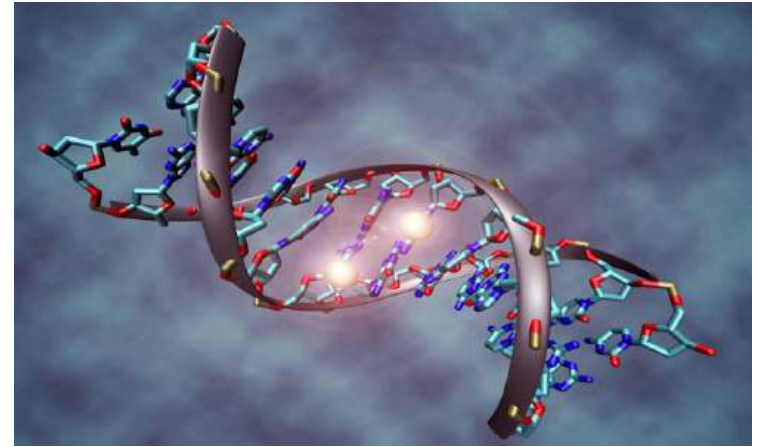


Inflammaging Reversal

Controlled & Regulated Inflammatory Response is a key mediating factor in “Inflammaging”

- Re-activating restorative expression of Genes
- Deactivating key Inflammatory pathways
- Upregulating SETD6 (Master “Off Switch”)
- Downregulating principal cytokines

Anti
Aging
Impacts



Epigenetic Regulation

Proven impact of Oriel as an Epigenetic Regulator at Molecular & Cellular levels

- 76-Fold increase in IGF-1 – Longevity Gene
- Molecular, Cellular, Physiological impacts
- Boosts skin’s ability to Repair & Regenerate
- Stimulating Collagen & Hyaluronic Acid

Hyaluronic Acid & Magnesium



- Magnesium is essential for HA synthesis
(Intl Journal of Research in Chemistry & Environment)
- Mg Improves HA efficacy & performance
- Improved Hydration at all dermis layers
- Improved Skin Barrier integrity
- Fragmenting Molecular Weight
- Switching on Natural HA production

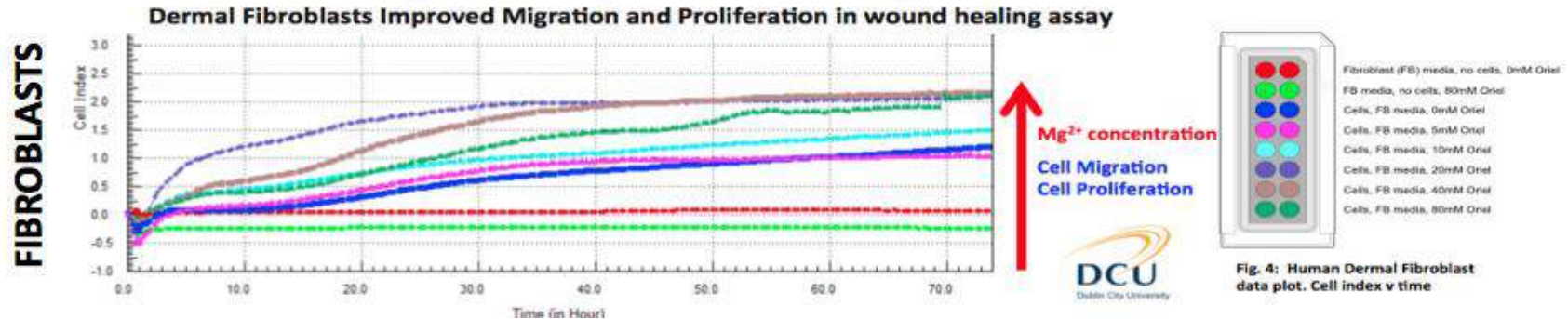
Collagen Biomarkers & Magnesium

- COL4A3 – Upregulated by 20 fold
(Production of Collagen Protein)
- COL1A3 – Upregulated by 10 fold
(instruction for making Type 1 Collagen)
- COL3A3 – 6 Fold
(instruction for making Type 3 Collagen)
- COL1A1, COL3A1, COL4A1, COL5A1, COL5A3
(ECM Producing Genes- all up-regulated)
- Co-factor relationship to Mg

Science proven on Dynamic 3D living human skin and on human dermal Fibroblasts, Keratinocytes and Endothelium cells.

Studies on human Fibroblast, Keratinocytes & Endothelium cells on 3D Dynamic Human Skin Equivalent

- Improved skin tensile integrity (via cellular architecture and bio-mechanics) for skin firming and elasticity benefit.
- Improved cell adhesion and proliferation for improved healing, recovery and new healthy cells being produced to displace unhealthy ones.
- Improved skin tone and condition.
- Laser absorption studies in France – 23 minutes for Minerals to reach the Dermal Microvasculature with no agitation



Measured using xCELLigence DP Real-Time Cell Analyzer assessing cell motility and adhesion

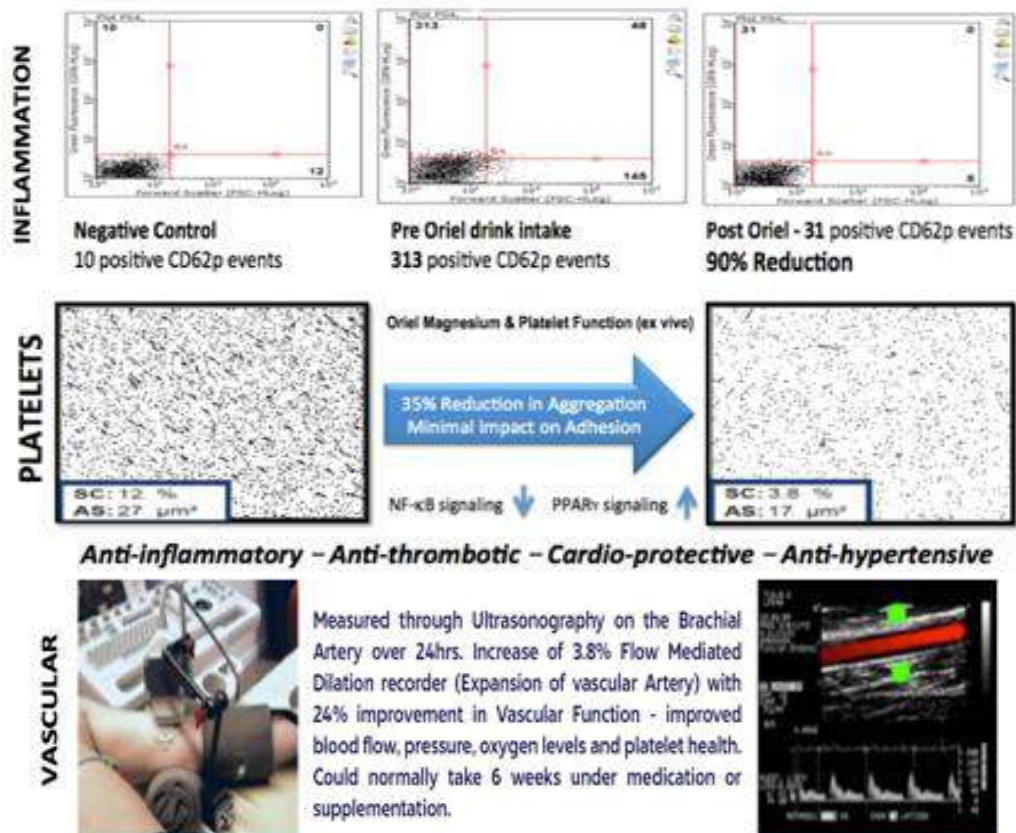
IMPROVING THE HEALTH OF THE DERMAL MICROVASCULAR (Platelets to Cardiovascular to Inflammatory Regulation)

Anti-inflammatory at blood platelet level. 90% reduction in inflammatory release of micro-vesicles in just 60 minutes. Additional studies demonstrate Pan Inflammatory Mediator benefit

Platelet Function & Platelet health Improved. Systemic health begins with Blood Platelet health. Platelet function plays pivotal role in inflammatory response & immune function. (+30% in 60 mins)

Regenerative effect to Cardiovascular function. Improved function and vasodilation impacts oxygen levels, reduced ROS, improved nutrient absorption to cells and is cardio protective.

"We have witnessed in 24 hrs, systemic improvements to the cardiovascular system that would take up to six weeks under normal supplementation" Dr. Ronan P. Murphy PhD, FCATH



Improved cardiovascular function 23% in 24 hrs
Improved blood vessel vasodilation 3.8% in 24 hrs

Molecular Regulation thru Gene Expression

Gene	Expression	Increase
COL4A3	↑	20 Fold
PLG	↑	6 Fold
IFNG	↑	35 Fold
MMP9	↑	18 Fold
TNF	↑	5 Fold
Gene	Expression	Decrease
WNT5A	↓	16 Fold
IL4	↓	4 Fold

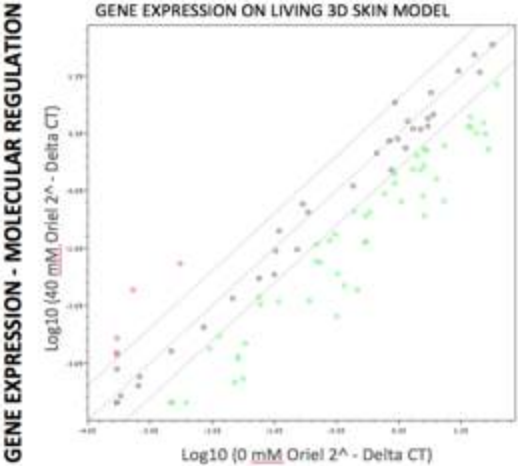
Small indicative selection of Analysis from over 500 Genes relative to skin & systemic health

Upregulated Gene Expression:

- COL4A3 – 20-Fold – Production of Collagen Protein
- COL1A3 – 10-Fold – Provides instruction for making Type 1 Collagen
- Col3A3 – 6-Fold – Provides instruction for making Type 3 Collagen
- COL1A1, COL3A1, COL4A1, COL5A1, COL5A3 (ECM Producing Genes)
- IGF-1 – 76-Fold – The Longevity Gene. Proves Epigenetic Regulation Effect
- FLG – Filaggrin – Vital protein that improves skin barrier and fuels skin cells to mature into the tough outer layer CCE
- PLG – 6-Fold – Plasminogen – Key component for platelet rich plasma
- IFNG – 35-Fold – Improved skin immune function by increasing Interferon-γ (IFNγ) Improves ability of skin microenvironment to fight infection & Maintain pigmentation.
- MMP9 – 18-Fold – Improves Tissue Formation Remodels Collagen I, III, IV & V, Aggrecan, Elastin & Fibrillin. Reduces Scarring. Promotes cell migration and reepithelialization.
- TNF – 5-Fold – Improves skin health post medication. inflammatory conditions

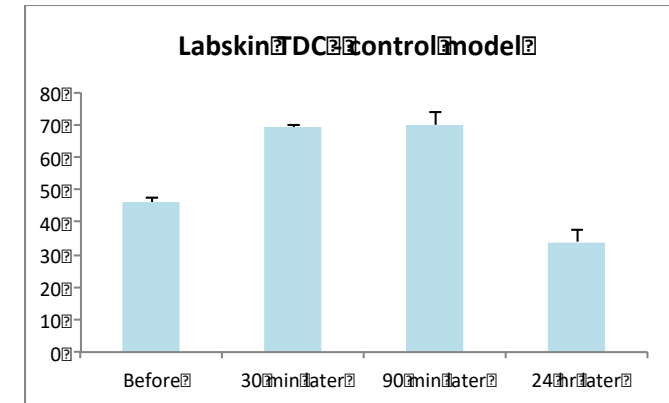
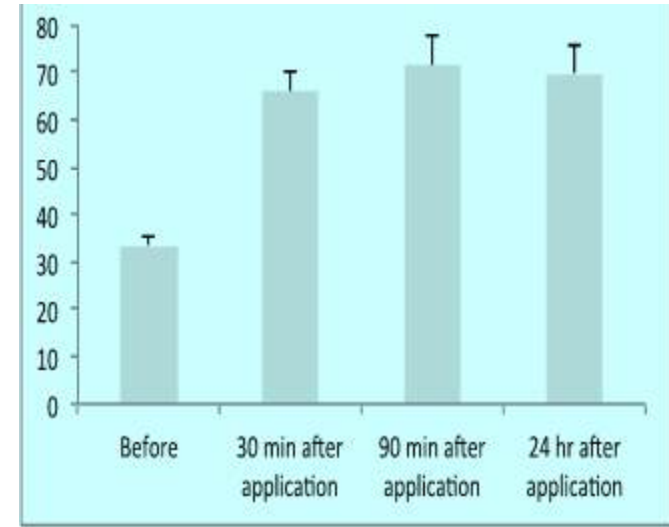
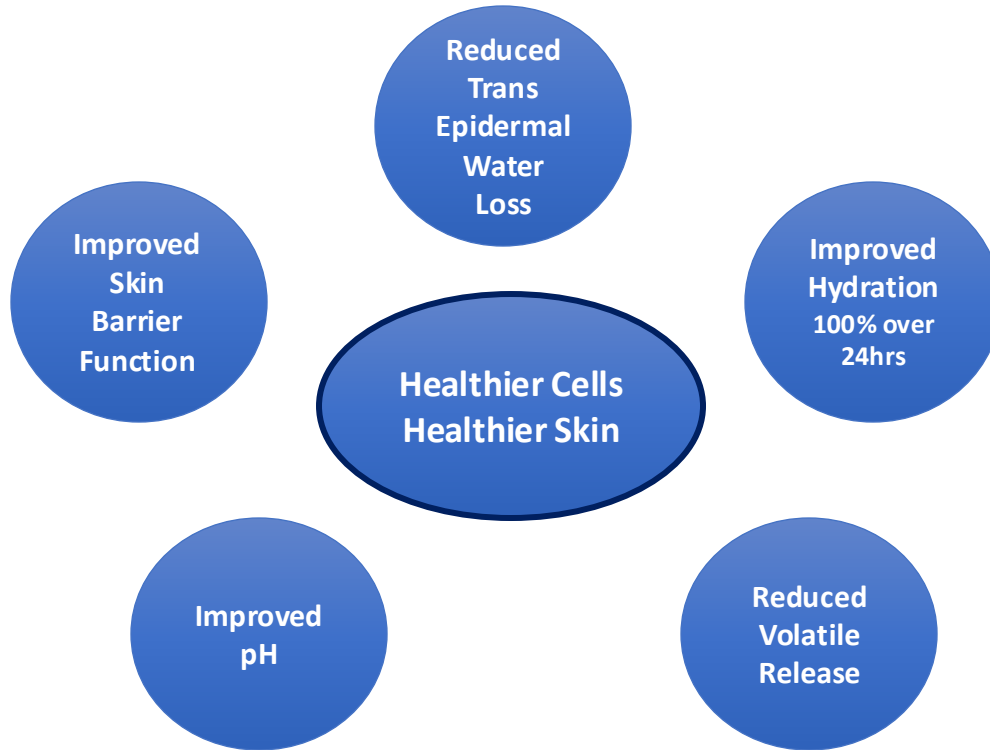
Downregulated Gene Expression

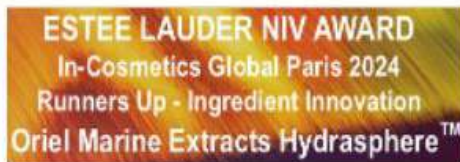
- PTEN – 100-fold – Pivotal role in inhibiting skin and wound repair
- WNT5A – 16-Fold – Inflammation and Immune Function agonist. Over expression is pathological. Implicated in many skin conditions
- IL4 - 4-Fold – Inflammation agonist
- IL8 – 50-fold – Inflammation agonist to skin conditions



Skin Barrier, Hydration and pH Studies on 3D Living Skin Model.

The most advanced Living Human Skin Equivalent Model demonstrated prolonged beneficial effect out to 24 hrs.





Accreditations & Awards

Award Winning Company

Award Winning Products

Award Winning Research



Other Applications

- Hair & Scalp Nutrition
- Nailcare
- Nasal Care
- Baby Care & Baby Wipes
- Activating water
- Nutraceuticals and Supplementation



HEALTHY HAIR

NEEDS

HAIR NUTRITION & SCALP NUTRITION

Hydrosphere, Deep Sea Magnesium
Mineral Extract. Nutrition for Hair,
Beard, Lashes, Scalp and Skin



Benefits To Hair 1

Hair is 90% Keratin (Protein) – **Magnesium is Necessary for Protein Synthesis & Hair Growth**

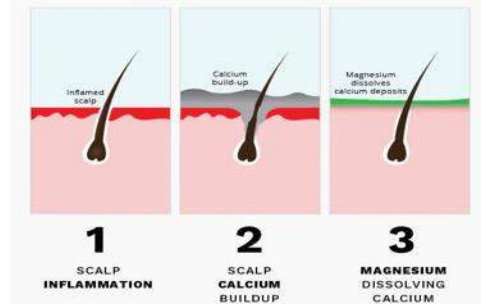
- Improved protein synthesis means healthier more vibrant hair
- Protein synthesis helps create Melanin which helps prevent greying.

Calcium Build Up on the Scalp and around Follicle Root. (**Magnesium is Calcium Co-Factor**)

- Calcium build up on the scalp is a potential cause of thinning hair.
- **Magnesium helps metabolize Calcium** build up around Follicle Root

Proven to **Improve Blood Flow** (Endothelial Vasodilation)

- Improved blood flow and nutrients to follicle root
- Oxygenated blood with less ROS and improved barrier function



Magnesium - 600 metabolic functions and enzymatic responses

- Magnesium keeps hormones such as testosterone and Dihydrotestosterone (DHT) in balance. DHT is a hormone directly related to Hair Thinning and Hair Loss. Magnesium inhibits 5-alpha reductase, the enzyme responsible for converting testosterone to DHT thus preventing hair thinning and loss and promoting hair growth.
- Magnesium plays a key role in enzymes that manage DNA repair and replication (Skin & follicle)

Benefits to Hair 2

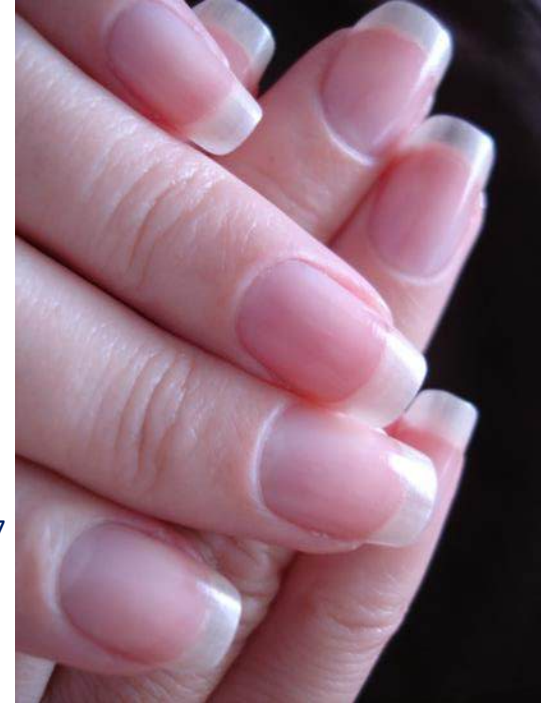
- Complete spectrum: Magnesium, Minerals (Calcium, Sulphur, Potassium, Sodium) 78 Trace Elements including Copper, Zinc, Phosphorous, Selenium, Nickel, Silica in ratio and balance to promote healthier, stronger hair.
- Magnesium promotes absorption and metabolization of Vitamin B6, B12, B Complex, B7 Biotin, Calcium, Iron, Vitamin D.
- Up-Regulates production of Collagen genes & Collagen protein biomarkers.
- Dual absorption via follicle root & directly through dermal layers – Only one
- Proven benefits to blood platelet health and blood circulation – Critical to the the dual approach of Oriel via the Dermal and Follicle pathways.
- Anti-inflammatory (Pan inflammatory mediator) for improved scalp and skin recovery and health



Nail Health, Strength, Rejuvenation

90% of Nails is Keratin (Protein) – **Magnesium is Critical for Protein Synthesis**

- Improved protein synthesis means healthier stronger nails
- Magnesium prevents vertical ridges in nails
- Plays a key role in the formation of new nails.
- Metabolizes calcium to help prevent dry brittle nails
- Proven to **Improve Blood Flow** (Endothelial Vasodilation)
- Improved blood flow to the capillaries beneath the nail bed
- More oxygenated blood with more nutrients and less ROS
- Calcium metabolism - Less calcific effect (stronger more resilient nails)
- Promotes absorption and metabolization of Vit B6, B12, B Complex, B7 Biotin, Calcium, Iron, Vit D.
- Up-Regulates production of Collagen genes and protein biomarkers.
- Promotes cell and nail regeneration post removal of fake nails



Benefits of Oriel Hydrasphere in Nasal Health

Reduce eicosanoid metabolism by directly inhibiting the 5-lipoxygenase enzyme, encouraging cell repair, & limiting inflammation.

Magnesium also inhibits exocytosis of permeabilized eosinophils and reduces respiratory cell apoptosis in association with zinc.

- Anti-inflammatory Effects
- Regulation of Ion Channels
- Barrier Function and Mucosal Integrity
- Oxidative Stress Reduction
- Cellular Energy and Metabolism
- Ciliary Function Enhancement
- Support for Immune Response
- Mucosal Protection and Hydration



Image highlights the protective and healing properties of magnesium on nasal mucosal epithelial cells, showing healthy, vibrant nasal tissue under the influence of magnesium.

Face Mask Benefits

- Reduction in spots, acne, redness, dry skin
- Benefits to Rosacea – Calming benefits (Anti-Inflammatory)
- Reduction in skin stress – Calming and Anti-inflammatory
- Reduction in fine lines and wrinkles – Improved firmness and collagen production
- Improved Skin Barrier (Reduced harmful Free Radical damage)
- Magnesium inhibits the over production of Sebum
- Multiple Gene regulation benefits (Collagen & IGF-1)
- Improving dermal micro vascular blood supply – Nourishing dermal microbiome
- Positive impact on ESKAPE (The six primary bad bacteria) Negatively charged lipids fragment as they die. Mg attaches to the tails and changes them to positively charged.



Sensitive Skin (Baby Skin Wipes)

- Gentle cleansing with added skin-soothing, conditioning and nourishing benefits
- Hydration and Moisture Retention (Cleanse without feeling stripped or dry)
- Balancing Skin's pH levels (Crucial for maintaining healthy skin barrier)
- Supporting Skin Healing and Repair (Magnesium & Zinc help prevent irritation)
- Reducing Bacterial growth (Sulphur and Copper have anti-bacterial properties)
- Re-conditioning the skin as you cleanse
- Soothing Inflammation redness and irritation
- Strengthening Skin Barrier Function



Deep Sea Mineral Water Wipes – Mineral Water Wipes

- It's doing more than water – But from a regulatory perspective – It's still just water
- Totally safe, gentle on skin and suitable for use on sensitive baby's skin
- Anti-inflammatory effect on allergy rash, diaper rash and skin irritations.
- Excellent results when used on Cradle Cap in wipe or gel.
- Significant body of science to support expectations and results.
- Simply infuse your purified water source with Deep Sea Minerals



The focus of the new generation of wipes is clean label, organic source, sustainable resource, no chemicals, less allergic reactions, no smells, no residue – COST EFFECTIVE at 1000-2000/1Oriel delivers this and more with proven science and functional beneficial effects to skin health.

Create perfect Mineral water as your “base water” by activating your purified or distilled water.

Mineral water makes better skincare and cosmetic products. Deep sea magnesium minerals and trace elements will transform your base water to perfect Mineral water.

The worlds leading brands use Mineral Water as the base water for their products. (L'Oréal, La Roche Posay, Vichy, Yves Saint Laurent, Biotherm, Lancôme....) But not all brands have access to a mineral water source and must purify their water which changes the water and how it interacts with ingredients.

Mineral water is softer and works with your ingredients in a more efficacious manner.

“The magnesium, calcium and potassium in many mineral water products have positively charged molecules that exchange with enzymes in the skin to help reduce inflammation and sensitivity,” Vichy

“Mineral water products return these moisture-binding minerals to the skin, slowing down the natural evaporation process and helping to hold water in the deeper layers of the epidermis” La Roche Posay.

Water Transformation – Water Activation – Perfect Mineral Water



Marketing Potential is Powerful and Versatile

- New source and form from EU protected living ocean waters
- is more Natural, Bioavailable, Absorbable.
- More Functional and Efficacious for Skin and Hair health
- Mutually Supportive mineral nutrients for our skin
- 100% Natural, Sustainable, Organic,
- Synergy of Nature, Technology and Science
- Millennia of provenance from a very special part of the world
- Highest quality Food/Medical/Cosmetics to GFSI & FSCC ISO 20002/1
- Not mined from Earth sources and powder-based forms.

Blue Beauty

Innovative
Technology

Powerful
New Source.

Minerals from
Deep Sea

Create product Families

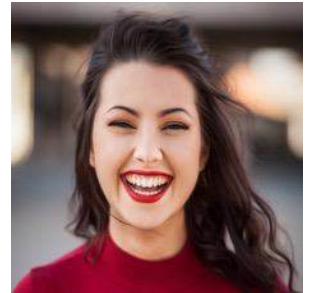
Skincare



Haircare



Cosmetics



Personal care



Oralcare



Nutraceutical



Formulation & Cost

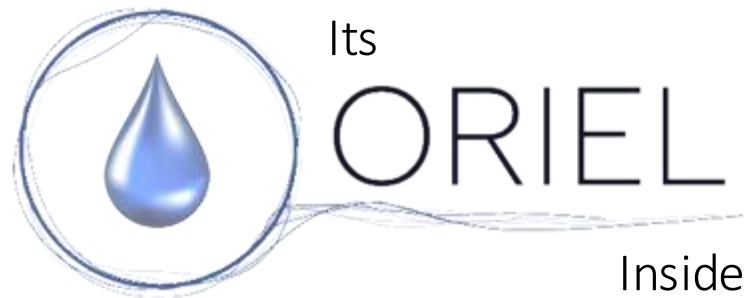
- A wonderful product to formulate with as you use less than 0.5%.
- Water based clear liquid.
- No odour, No colour, No masking issues.
- Self preserving, No temperature, solubility or suspension issues.
- Natural, Sustainable, Organic.
- INCI: Sea Water Extract (No CAS, EINECS, AISIN Required due to Natural status)
- **Blue Beauty – Green Beauty** - Pure & Clean.

Any liquid applications in:

- Skincare, Haircare, Cosmetics
- Wipes – Facial, Baby, Body
- Oral care, Wound or Burn care
- Nutraceuticals

Dosage: Skincare & Haircare products @ 0.3% - 0.5%

(At 0.3% equates to approx. €0.10 cent per 50ml of client product)



If its liquid
formulations, we've
got the science

THANKS