



# RELUMINS

Renew. Revive. Re-Beautify.

[www.relumins.com](http://www.relumins.com)



All Relumins products are registered with the United States Food and Drug Administration and are CGMP compliant.



# WHAT IS RELUMINS

Relumins Labs is an American company founded with the sole purpose of creating the safest, most effective beautifying products on the market. Unlike our competitors, we offer pharmaceutical-grade beauty, skincare and weight loss products without the filler, questionable ingredients or lack of safety controls found in other manufacturing facilities. We work closely with doctors and clinicians in the development of our products



# ADVANCE NUTRITION

## Research Based, Clinical Quality

Relumins Advance Nutrition applies cutting edge, peer reviewed research to deliver the best products to our clients. Each product uses powerful, naturally derived ingredients to nourish skin from the inside for smoother, brighter and healthier skin. Each oral formulation is designed with synergy and functional benefits in mind.



# PROFESSIONAL STRENGTH

- Doctors want a professional quality product that can't be matched by anything available online or in stores
- The strength and effectiveness of this product requires it to be distributed *exclusively* by dermatologists
- Patients will love the clinical strength whitening effects as well as the rejuvenating power of our advanced formulation





RELUMINS

# 15X GLUTATHIONE COMPLEX & NUTRIENTS

Oral Formula, Injection-like Results

- Whitening blend contains glutathione and many natural antioxidants to maximize potency, synergy and skin support
- Powerful age-fighting ingredients including Green Tea, Rosehips and flavonoids
- Promotes and protects collagen and elastin
- Reduces inflammation and cell damage from internal or external stresses
- Bolsters natural skin immunity

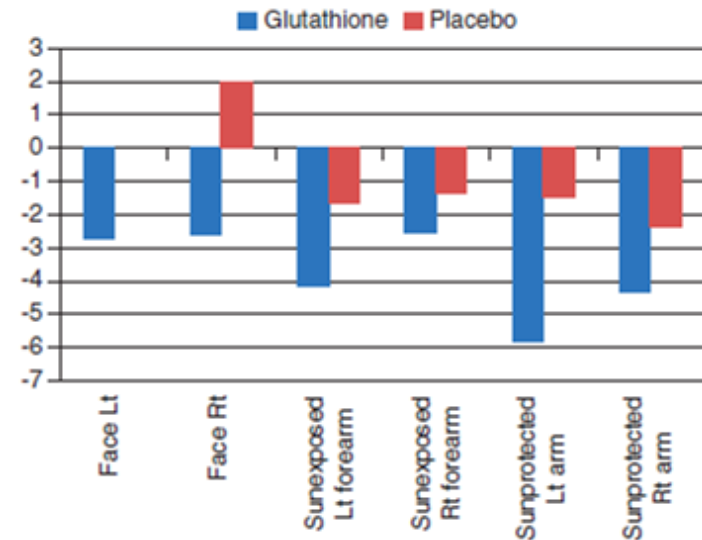


- Glutathione
- N-Acetyl-L-Cysteine
- Alpha Lipoic Acid
- L-Methionine
- Vitamin E
- Vitamin B2
- Selenomethionine
- Milk Thistle
- Green Tea Extract
- Rosehips
- Citrus Bioflavonoids
- Hesperedin
- Quercetin
- Soy Isoflavone

# GLUTATHIONE

## The Industry Standard In Effective Whitening

- Glutathione competitively inhibits melanin synthesis in the reaction of tyrosinase and L-DOPA by interrupting L-DOPA's ability to bind to tyrosinase<sup>1</sup>
- Disrupts tyrosinase activity and transport<sup>2</sup>
- Clinically shown to reduce dark spots and whiten skin by inhibiting melanin synthesis<sup>3</sup>
- Powerful antioxidant protects cells from internal and external stress<sup>4</sup>



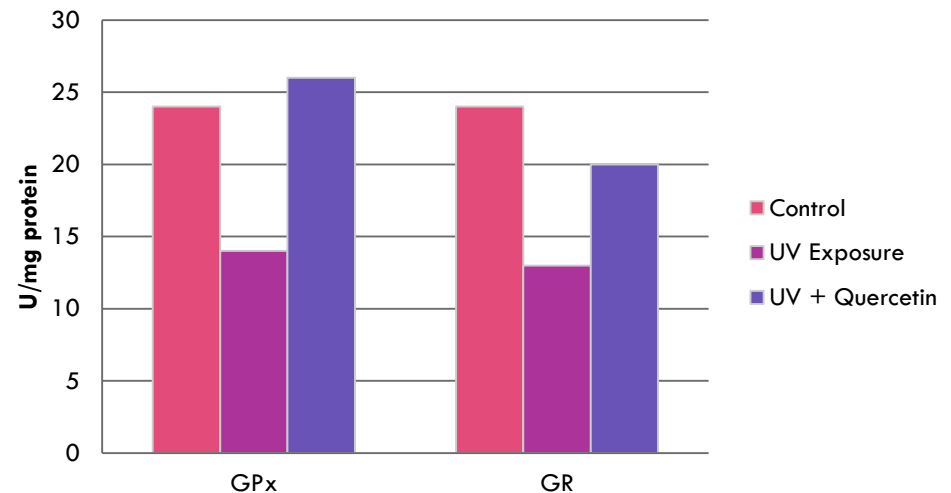
Whitening effect of 4 weeks of 500mg/day oral glutathione

# GLUTATHIONE

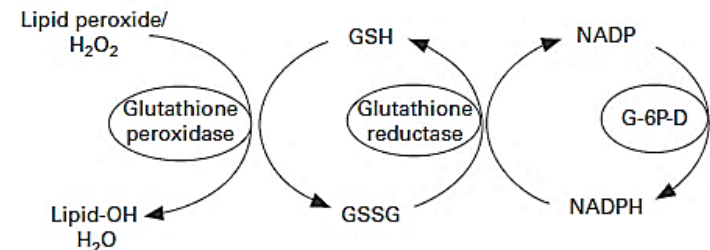
## How Relumins Made It Better

- Typical oral glutathione products are limited by slow accumulation in cells
  - High doses lead to side effects like gas and bloating
- New synergistic formula designed for maximum absorption, utilization and efficacy
  - Quercetin<sup>5</sup>, Vitamin B2<sup>6</sup> and Alpha Lipoic Acid<sup>7</sup> aid in the maintenance of glutathione activity
  - N-acetyl-L-cysteine and Alpha Lipoic Acid supplement available cystein<sup>8</sup>, an essential precursor of cellular glutathione
  - Selenomethionine provides the selenium needed to form glutathione peroxidase, which maintains glutathione activity<sup>9</sup>

**Effect of Quercetin and UV Radiation on the Activity of Glutathione Enzymes**



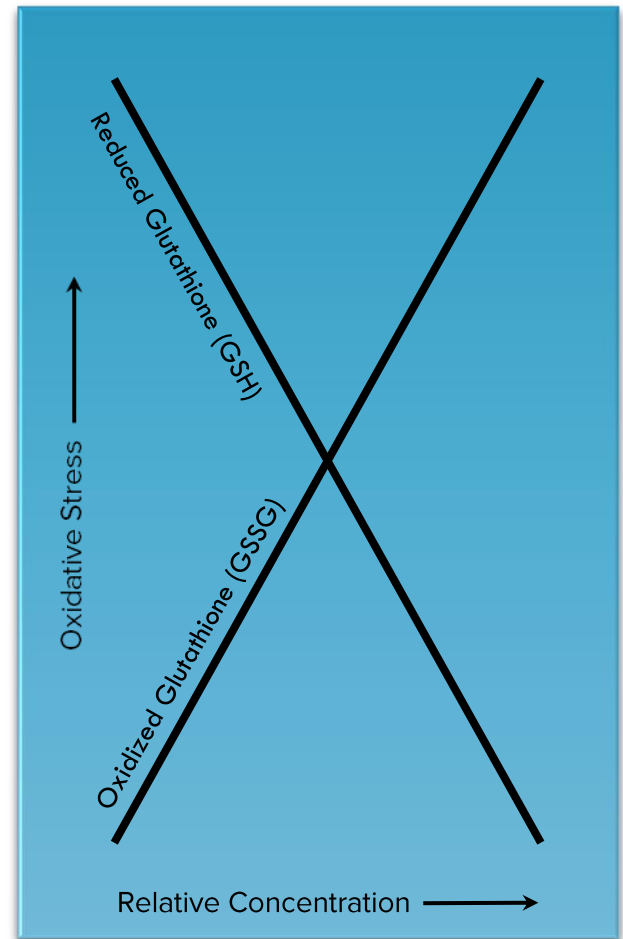
UV can damage glutathione peroxidase and reductase and inhibit glutathione activity. Quercetin protects these enzymes and improves their activity<sup>5</sup>.



# MECHANISMS OF WHITENING

## Glutathione Support

- Reduced glutathione (GSH) is oxidized into GSSG by ROS including free radicals and peroxides
  - Reduced Glutathione (GSH) is active in melanogenetic pathway<sup>4</sup>
  - Quenching ROS will maintain a higher GSH:GSSG ratio<sup>4</sup>
- Effective Ingredients
  - Every ingredient in this formula contains potent antioxidants that protect and prolong glutathione activity

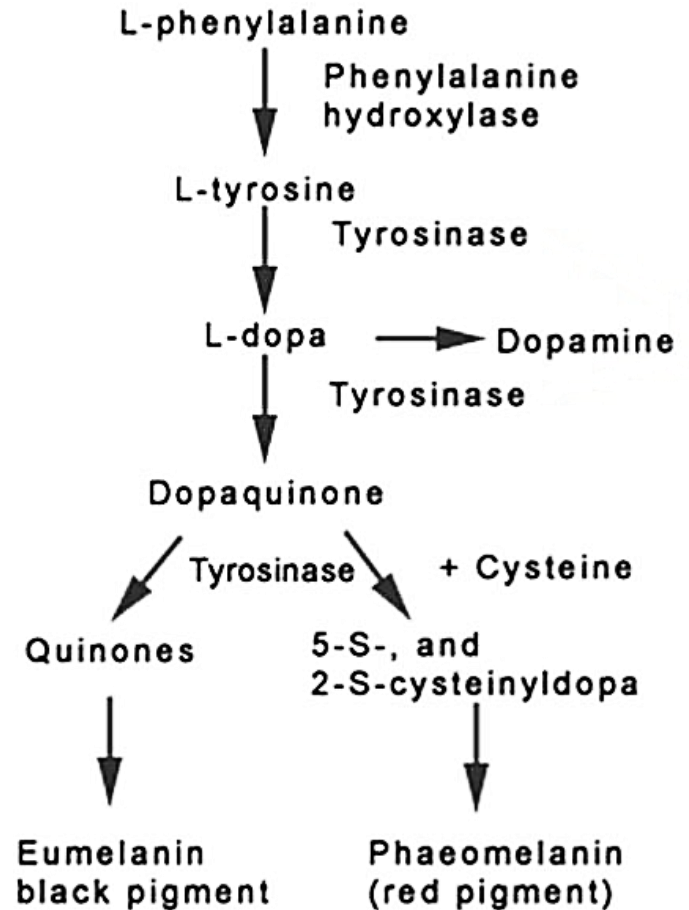




# MECHANISMS OF WHITENING

## Tyrosinase Inhibition

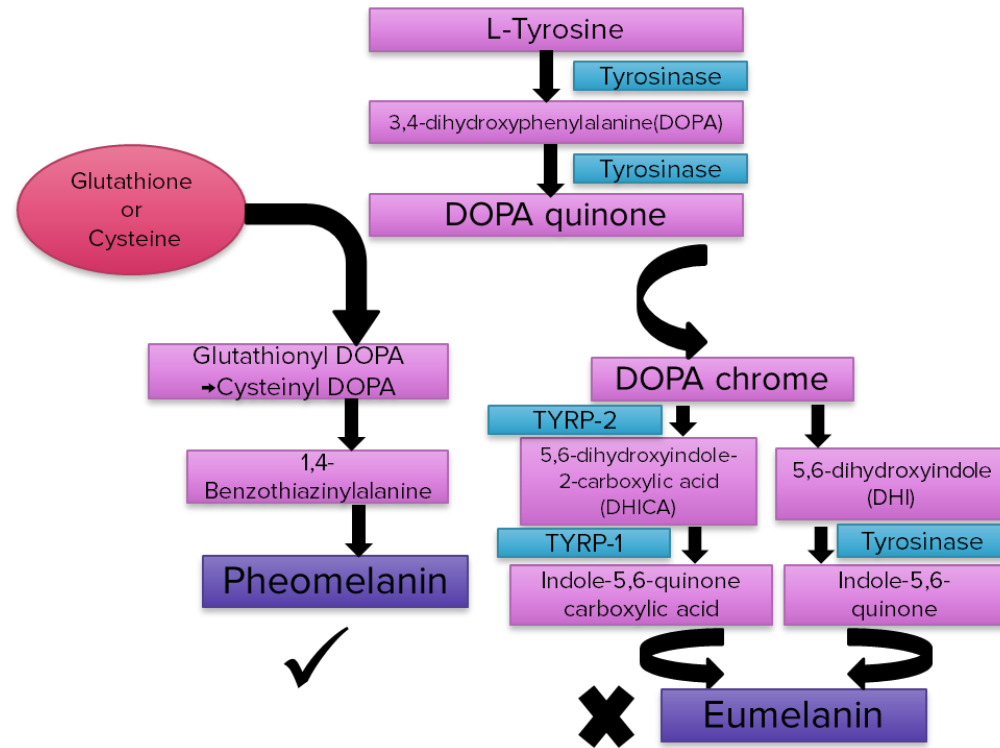
- Tyrosinase is the master enzyme in melanogenesis, by inhibiting it, melanogenesis is slowed
- Effective Ingredients:
  - Glutathione, vitamin E, quercetin, hesperidin, citrus bioflavonoids, green tea extract and soy isoflavones<sup>10</sup>
- Tyrosinase activity can also be induced by free radicals and peroxides<sup>4</sup>
  - Antioxidants will demonstrate an inhibitive effect on tyrosinase



# MECHANISMS OF WHITENING

## Shifting Of Melanin Type

- Eumelanin is the melanin that makes skin dark, while pheomelanin gives skin a fairer tone
- Glutathione and N-Acetyl-L-Cysteine can inhibit eumelanin generation by shifting towards pheomelanin production<sup>2</sup>
  - These molecules react with DOPA quinone to create the pheomelanin precursors Glutathionyl DOPA and Cysteinyl DOPA



# MECHANISMS OF WHITENING

## Anti-Inflammation

- Postinflammatory hyperpigmentation is common among darker skinned individuals<sup>11</sup>
- Any inflammatory injury can cause skin discoloration
  - Sunburn, acne
- Preventing inflammation can minimize discoloration from injuries<sup>12</sup>
- Effective Ingredients:
  - Milk thistle<sup>13</sup>, quercetin<sup>14</sup>, hesperidin<sup>15</sup>, rose hips<sup>16</sup>, green tea<sup>17</sup>, Vitamin E<sup>18</sup>



# ANTI-AGING

## Protect Skin from Aging Effects of the Environment

- UV radiation causes influx of matrix-metalloproteinases and neutrophils containing proteolytic enzymes into the dermis. These enzymes destroy collagen and elastin and age skin<sup>19</sup>
  - Lutein & Zeaxanthin, carotenoids found in rosehips, inhibit the amount and activity of these enzymes<sup>16</sup>
- UV can also damage skin by increasing oxidative stress
  - Antioxidant ingredients will effectively reduce UV induced ROS in the skin
- Naturally occurring phytochemicals protect against UV induced inflammation, oxidative stress, immunosuppression and skin cancer<sup>13</sup>
  - Effective Ingredients: Vitamin E, green tea polyphenols, silymarin and lutein

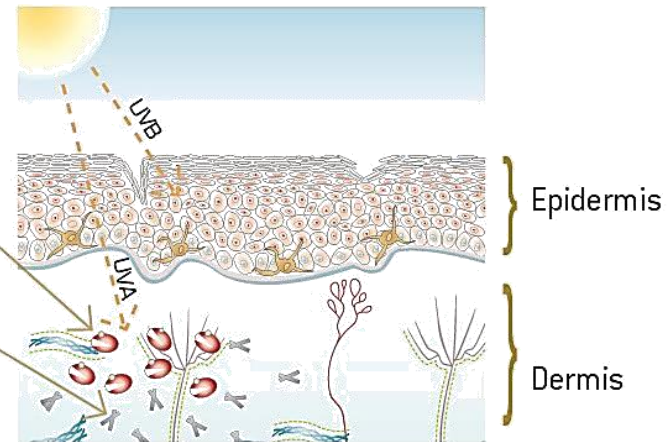
### Photo-aged skin

UVA = aging

UVB = burning

Increase in free radicals

Over-production of enzymes

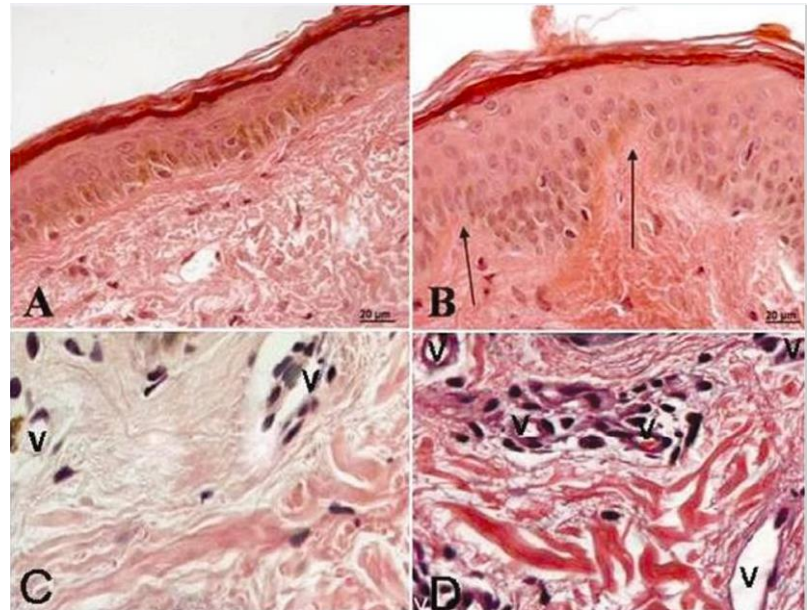


Damage caused to the structural elements of the dermis.

# ANTI-AGING

## Regenerate Aged Skin

- Support collagen production
  - L-methionine, soy isoflavone<sup>20</sup>
- Soy Isoflavone improves the appearance of fine wrinkles and increases dermal blood vessels and papillae<sup>20, 21</sup>
- Hesperidin and other citrus bioflavonoids strengthens blood vessels and reduces dark circles under eyes<sup>22</sup>



Soy isoflavone improves papillary depth (A → B) and increases number of dermal blood vessels (C → D)<sup>21</sup>

# SUMMARY

Whiten, Renew and Protect with Synergistic Power

- Relumins has created a new formula based on clinical and preclinical research that surpasses any oral skincare supplement on the market
- Every ingredient was specifically chosen to maximize skin benefits
- Our ingredients are of the utmost quality and our standards are without question
- Manufactured in the USA in full compliance with regulations





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