THE SCIENCE BEHIND

HAIR

SHINY

STRONG & RESISTANT
THE BEAUTY OF THE HAIR IS A REFLECTION OF A BALANCED ORGANISM.

Good health and a healthy lifestyle contribute to the good look of the hair.

- Balanced eating habits
- Low stress levels
- Physical activity
- Sufficient and quality sleep hours
However, the environmental influences to which your hair is exposed daily can lead to a series of damages to the chemical and physical properties from the root up to the tip of the fibers.

- Inadequate products
- Washing
- Weather and temperature
- Radiation
- Chemical processes
- Pollution
- Physical and thermal processes
This set of factors is called: **EXPOSSOME**

It is a new concept to approach hair disorders that incorporates everything human beings are constantly exposed to.
ENVIRONMENTAL FACTORS

LIFESTYLE

- Hormones
- Nutrition
- Physical activity
- Sleep
- Stress
- Smoking
- Inadequate products
- Weather variations
- Solar radiation
- Blue Light
- Extreme temperatures
- Pollution
- Chemical, physical and thermal processes
- Inadequate products
- Weather variations
And what are its impacts on the hair?

- Damages
- Dryness
- Roughness
- Opacity
- Fragility
- Porosity
- Propension to fall

However,

It is known that cosmetic active ingredients have an important role when it comes to conquering shiny, strong and resistant hair that will have a direct effect on the well-being and self-esteem of consumers.
Healthy and beautiful hair is based on **four main attributes:**

**Balance**
The health of the hair is directly linked to a balanced scalp, which is fundamental for the integrity of the hair system.

**Energy**
It indicates the health of the fiber, that translates into a beautiful, soft and shiny hair, with less propensity to break and fall.

**Strength**
It is related to the main attributes of the fiber, such as: resistance, elasticity and ability to withstand the external damages to which the hair is constantly subjected.

**Protection**
Protected hair fibers are less susceptible to the aggressions to which they are daily subjected. In addition, they are able to maintain the hydration and shine of the hair fiber.
Balance
Scalp
The origin of the hair

**BALANCE**
Healthy and protected scalp

Shiny, strong and resistant hair

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**UNBALANCE**
Excess of oil and irritation

Opaque, fragile and weak hair

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**THE PROBLEM:**
AN UNBALANCED SCALP

Dandruff     Scaling
Dryness      Sensitivity
Hair loss    Redness
Itching      Excess of oil
The solution: **Tribocontrol CA**
Rebalancing vegetable complex | Intra- & Intercuticular Action

**Hair Tribology**
New concept that reduces friction & improves lubrication

- Sebum regulator
- Root dermopurifier
- Dandruff prevention
- Rebalancing of the oily hair without leaving it dry
- Prevents and fights small scalp irritations
- Lighter and looser hair

**INCI Name:** Chamomilla Recutita (Matricaria) Flower Extract, Rosmarinus Officinalis (Rosemary) Leaf Extract, Methyl Soyate, Rice Wax Esters, Linseed Oil Ethyl Esters

**Indication for use:** 0.5-5.0%

*Sebumeter test: Shampoo 1% of Tribocontrol CA versus Placebo Shampoo

Tests prove it: **38% reduction of oil residues in the fibers***
THE PROBLEM: DEFICIENT GROWTH CYCLE AND HAIR LOSS

MAIN CAUSES:
- Genetics
- Aging
- Diets
- Stress
- Diseases
- Hormones
- Drugs
- Smoking
- Low-quality sleep
- Aggressive or excessive treatments
- Improper handling
- Postpartum

Growth cycle
- **Anagen**: Growth phase
  - Intense proliferation
  - 90% of the fibers
  - 3 to 5 years, or up to ten
- **Catagen**: Transition phase
  - Preparation for new growth
  - 1% of the fibers
  - 2 to 3 weeks
- **Telogen**: Rest phase
  - Hair loss
  - 9% of the fibers
  - 3 to 6 months

Energy Follicle | Fiber anchoring

Follicle
Bulb
Hair erector muscle
Sebaceous gland
The solution:

**Bioex® Capilar GP4G**

Synergistic combination of plants & herbs enriched with *Artemia salina* to regulate the growth of the hair

**INCI Name:** Cinchona Calisaya Extract, Pollen Extract, Arnica Montana Flower Extract, Urtica Dioica (Nettle) Leaf Extract, Pfaffia Paniculata Root Extract, Egg Yolk Extract, Triticum Vulgare (Wheat) Germ Extract, Acetyl Methionine, Sodium Chondroitin Sulfate, Artemia Extract

**Indication for use:** 0.5-2.0%

**EFFECT**

- BIOENERGIZING
- Source of GP4G Guanosine triphosphate
- Artemia
- Mucopolysaccharide
- Plants & Herbs
- Quina, Capsicum, Pollen, Arnica, Nettle, Pfaffia, Egg yolk, Wheat germ
- Amino acid
- Acetyl Methionine
- Sodium Chondroitin Sulfate
- FAVORS THE PERIPHERAL MICROCIRCULATION
- SEBUM NORMALIZATION AND HAIR REVITALIZATION
- STIMULATION OF THE CELLULAR METABOLISM | FIGHTS HAIR LOSS

**Result:**

- 60% increase in follicle diameter
- 32% increase of cells in the papilla

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**Control**

**Bioex® Capilar GP4G**
**Strength**
Internal structure of the fiber

**PROTEINS & AMINO ACIDS**
91%
Fiber resistance, shine and flexibility

**WATER**
4.9%
Fiber hydration and elasticity

**LIPIDS**
4%
Strengthening of the hair fiber structure and maintenance of the oiliness along the fiber

NOGUEIRA, A. C. S. Foto-degradação do cabelo: influencia da pigmentação da fibra da Fibra / Ana Carolina Santos Nogueira Campinas, SP [s, n], 2008
Changes in the main characteristics and properties of the hair
The problem: Protein degradation

The solution: ReparAge®

INCI Name: Glutamic acid, Serine, Carbocysteine, Hydrolyzed Rice Protein, PEG-90M, Polyquaternium-10, Aqua

Indication for use: 1-3%

Biomimetic Repair

Glutamic Acid Cysteine

Serine

High Molecular Weight Protein

They mimic the structural chemical composition of the healthy hair

Polymeric matrix

Delivery system

Unique feel

Frizz reduction

TESTS PROVE IT!

• Increased fiber diameter
• Protein mass replacement
• Reduced damage to the fiber surface
• Expressive shine increase
• Thermal protection

MASS & PROTEIN MATTER REPLACEMENT

Promotes the replacement of matter & protein mass necessary to counterbalance the loss of strength of the weakened fiber

CORTEX PROTECTION

Reduces the damage and signs of aging that cause structural changes in the fiber

PRO.FILLER EFFECT: HAIR REDENSIFICATION

Its active ingredients penetrate deeply into the hair fiber, increasing the diameter of the fibers after only 14 days of use
The problem: **Dehydration**

The solution: **Nano.CARE Fiber**

Water rebalancing

**Nano.emulsion**
Xylitol, natural-source sugar
Hydrolyzed vegetable protein
In binding Bioesters

High permeation and diffusion power in the fiber

Restoration of protein layers

Restoration of the lipid matrix

Water factor rebalancing

**Hair freedom**
For all hair styles and conditions

- Straight effect maintenance
- Flexibility & movement
- Improved smoothness
- Shine restauration
- Immediate results
- Reestablishes the natural hydration
- Soft touch
- Valorization of curly Wavy | Crisp hair

INCI Name: Prunus Amygdalus Dulcis Oil, Hydrolyzed Rice Protein, Ethyl Almondate, Ethyl Palmate, Rice Bran Wax Ethyl Esters, Xylitol, Glycolic Acid

Indication for use: 0,5 a 2%
Did you know...
That the main fatty acid of the lipid composition of the fiber is called 18-Methyl Eicosanoic Acid (18-MEA)?

The problem:
Damages to hair lipid barrier (18-MEA removal)

THE SOLUTION:
Pro.REPAIR 18-MEA
INNOVATIVE 18-MEA REPLACEMENT TECHNOLOGY

18-MEA replacement and recovery by similarity/mimicry

Delivery of 18-MEA linked to Panthenol (Pro-Vit B)

Preservation and repair of the lipid hair barrier

Restoration of fiber hydrophobicity

Fiber Integrity Regeneration & Damage Prevention

Improves the combing ability when wet and the touch when dry

INCI Name: Panthenol – 18-methyl eicosanoate (requested)
Indication for use: 0.5 - 0.8%
OXYGEN REACTIVE SPECIES & THEIR IMPACTS TO THE FIBER

- Oxidative damages
- Fiber degeneration
- Degradation of proteins and amino acids
- Melanin oxidation
- Loss of artificial pigments

ANTIOXIDANTS
The problem: **Reactive species created by the exposome**

**The solution:**

**Tamariliz**  
Hair protection technology  
Tamarind pulp concentrate

**INCI Name:** Tamarindus indica fruit extract  
**Indication for use:** 1-3%

- **High molecular weight polysaccharides**  
- **Polyphenols**  
- **Organic acids (tartaric & oxalic acid)**

**Artificial color protection**

**Film formation**

**Cuticle softening**

**Hair cohesion**

**Antioxidant effect**  
(Oxygen Singlet Suppression)

**Singlet oxygen lifespan µs**

- **Water**
- **Tamariliz 1%**
- **Tamariliz 3%**

**Shine**

**Hair**

**INCI Name:** Tamarindus indica fruit extract

**Indication for use:** 1-3%
The problem: **Damages caused by the urban lifestyle**

The solution: **Pro.CARE AOX**
Bio.Protective Antioxidant System

**INCI Name:** Curcuma Longa Root, Camellia Sinensis Leaf, Chamomilla Recutita Flower, Rosmarinus Officinalis Leaf, Ethyl Palmitate, Ethyl Almondate, Rice Bran Wax Ethyl Esters, Quercetin, Xanthophyll

**Indication for use:** 0,5 a 2%

**Tests Prove It!**
- Antioxidant action by the suppression of free radicals and singlet oxygen
- Protection of the squalene of the fiber and scalp
- Absorption of UV radiation and visible light

**Oxidative Stress**
Loss of:
- Vital nutrients
- Strength
- Resistance
- Shine

- Lipid protection
- Shield against environmental aging
- Reestablishes the health of the hair system
- Preserves the integrity of the fiber
THE SCIENCE BEHIND

HAIR

SHINY

STRONG & RESISTANT

AQIA

AQIA QUIMICA INDUSTRIAL LTDA
Manufacturing Site: R. Rosa Mafei, 563
Bonsucesso – ZIP CODE: 07177-110 – Guarulhos – SP – Phone: 55 11 2436-3133
Central Office: R. Comendador Eduardo Saccab, 215 – 4º andar
Campo Belo – ZIP CODE: 04601-070 – São Paulo – SP
www.aquia.net/en
AQIA & COOXUPÉ PARTNERSHIP

AQIA has chosen the Regional Cooperative of Coffee Growers in Guaxupé - Cooxupé as its exclusive coffee supplier for its pioneering work. Cooxupé is the world’s largest coffee cooperative, operating since 1932 in the main coffee producing regions of Brazil. It aggregates, educates, and manages producers at more than 200 municipalities in the regions of Southern Minas and the Cerrado Mineiro, in Minas Gerais, and the Rio Pardo Valley, in São Paulo.
Green Coffee Arabica

INCI: Coffea Arabica Seed Oil

**Description:** Pure oil extracted from green coffee seeds by cold pressing. Highly concentrated in unsaponifiables that characterizes it as an antioxidant and moisturizing active ingredient.

INCI: Coffea Arabica Seed Oil (and) Caprylic/Capric Triglyceride

**Description:** Pure oil extracted by cold pressing of green coffee seeds synergistically associated with triglycerides of capric and caprylic acids. Highly concentrated in unsaponifiables that characterizes it as an antioxidant and moisturizing active ingredient.

INCI: Coffea Arabica Seed Oil (and) Hydrogenated Vegetable Oil

**Description:** This combination of pure oil extracted from green coffee seeds with vegetable saturated triglycerides presents a high concentration of antioxidant constituents. Skin moisturizer. It maintains the lipid barrier.

INCI: Coffea Arabica Seed Oil (and) Silica

**Description:** Active in powder form obtained by microencapsulation technology of pure oil extracted by cold pressing of the green coffee seeds in biosilicon (vegetable silicon). It presents a minimum concentration of 4% in unsaponifiables.

Green Coffee Robusta

INCI: Coffea Robusta Seed Powder

**Description:** Obtained by milling followed by micronization of green coffee beans of Conilon species (Robusta). Retaining, therefore, all lipophilic and hydrophilic components, especially the chlorogenic acid. This very specific composition can be used as a physical barrier for sunscreens contributing to the sun protection factor.

Cherry Coffee Arabica

INCI: Coffea Arabica Seed Oil

**Description:** The pure oil extracted by cold pressing of roasted cherry coffee seeds including bioactive compounds as the melanoidin polymers which has an exclusive composition responsible for antioxidant effect. The oil has characteristic color and odor for use as a natural alternative for colors and flavor.