

RAWGA

식물기반의 기능성 대체원료를 개발하여
헬스케어 생태계를 만드는 바이오헬스케어 기업

A bio-healthcare company that develops plant-based
functional alternative raw materials to create a healthcare ecosystem

- 2017'** -Lao Organic Valley Creation
- 2019'** -Functional Organic Plant Research
- 2020'** -Technology development of plant collagen
- 2021'** -Development of cosmetic composition containing hibiscus collagen peptide
 -Developed food composition containing hibiscus collagen peptide
 -Vegan certification of vegetable collagen
 -Launched 'Plant Collagen' brand
- 2022'** -Entered department stores and pharmacies
 -Won the Grand Prix at SIAL PARIS for the first time in Korea in the raw material category
 -ISO 9001:2015 certification
- 2023'** -KMF Halal Certification
 -Launched plant collagen raw material application products
 -Selected as the paradigm brand of plant-based, NYC Summer Fancy Food Show
 -ISO 22000:2018 certification
 -Completion of preclinical studies on plant-based collagen
 -Investment from CJENM
 -Antioxidant Composition Analysis Project in Seoul National University
- 2024'** -Researching clinical effects of plant collagen
 -Exported to 5 countries (Malaysia, Kuwait, Russia, USA, Singapore)
 -Business agreement with Amway, Nestle, and Lotte
 -Won 2 Anuga Select Janpan Innovation Awards
 - Innovative ingredient usage
 - Health and nutritional innovations
 -Brand 'Plant Collagen' TVCF, PPL planned (May)
 -Launched as a plant collagen booster for RTD beverages (May)
 -Dongwon Green Denmark product launch scheduled (May)
 -Finalist in VitaFood Startup Innovation Challenge (May)



We diagnose problems.

Problems with mad cow disease, foot-and-mouth disease, heavy metals, etc. of animal raw materials

Collagen is extracted from the skin and bones of cows and pigs, fish skin, and scales. As a result, problems unique to raw materials such as bovine mad cow disease, pig foot-and-mouth disease, heavy metals in fish, and microplastics are being raised.

A large amount of synthetic additives added to conceal the fishy taste

Collagen has a fishy taste that is difficult to eat because it is extracted from cows, pigs, and fish. Therefore, when making a product, various kinds of synthetic additives for taste, flavor, and color that hinder health to mask fishy taste are added.

Health Problems Due to Increased Animal Food Consumption

Collagen is a type of protein that you must take. However, if you are concentrated on animal protein, the risk of lifestyle diseases such as metabolic syndrome increases. Therefore, studies* have shown that it is desirable to consume one-third of the protein as animal and two-thirds as vegetable.

Development of health functional food raw materials that require high initial investment costs

It takes at least three years and high investment costs to find high-efficiency crops with functional ingredients, develop technologies to commercialize them, and obtain data to prove the safety and validity of the developed raw materials.

Animal raw materials with higher carbon emissions than plants

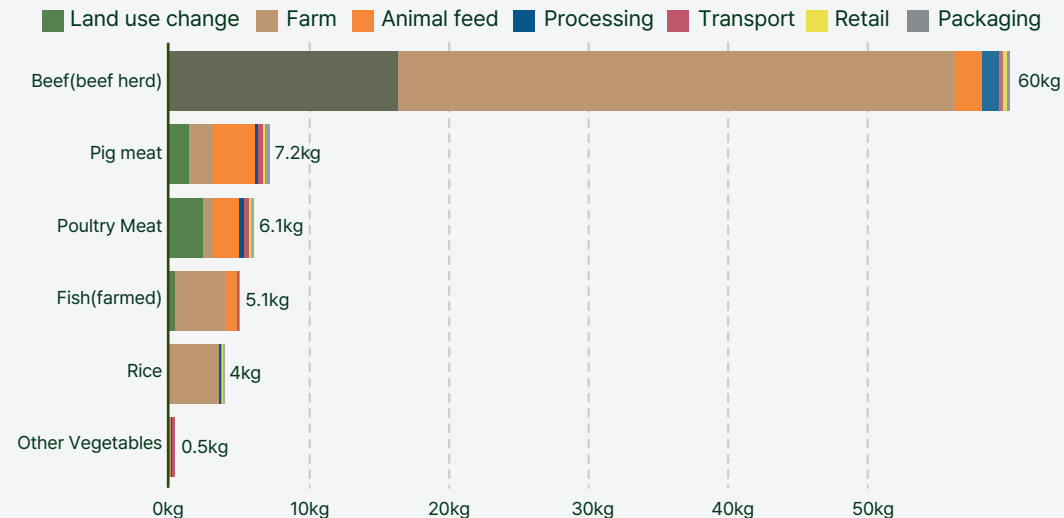
The FAO said 18 percent of the global greenhouse gas emissions are attributed to livestock.**According to Our World in Data, based on 1KG production, beef is about 60kg, farmed fish is about 5kg, and plants are about 0.5kg carbon emissions.

*HERNÁNDEZ, Miguel, et al. The protein efficiency ratios of 30: 70 mixtures of animal: vegetable protein are similar or higher than those of the animal foods alone. The Journal of nutrition, 1996, 126.2: 574-581.

**STEINFELD, Henning, et al. Livestock's long shadow: environmental issues and options. Food & Agriculture Org., 2006.

Food : greenhouse gas emissions across the supply chain

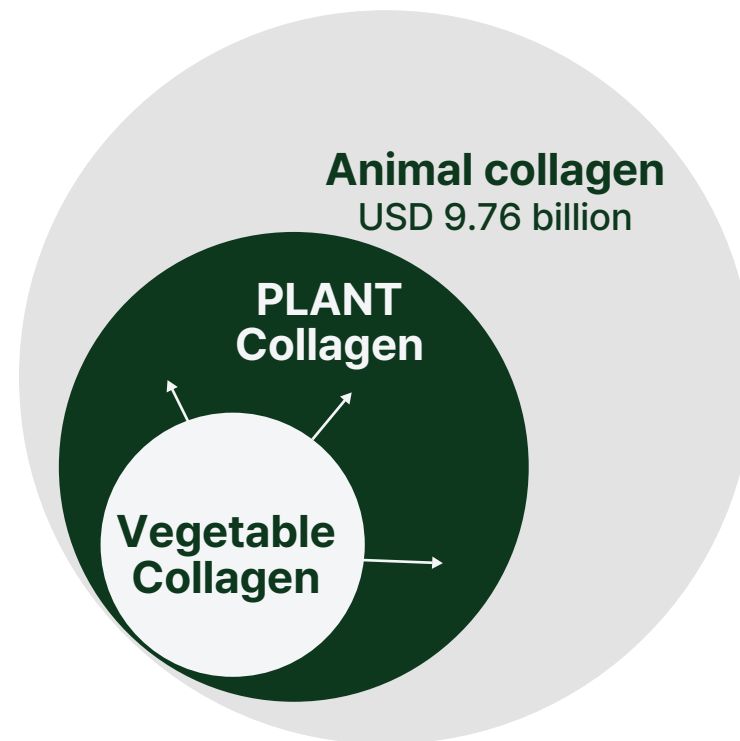
Greenhouse gas emissions are measured in kilograms of carbon dioxide equivalents (kgCO₂eq) per kilogram of food. This means non-CO₂ greenhouse gases are included and weighted by their relative warming impact.



Source : Poore, J., & Nemecek, T.(2018). Reducing food's environmental impacts through producers and consumers, Science OurWorldInData.org/environmental-impacts-of-food-CC BY

Communication goals for 2024

Increase access to plant-based collagen sources and own-brand 'PLANT Collagen' Replace 10% of global collagen MS by 2025



Increase awareness of 'PLANT Collagen' brand as a representative brand of plant-based collagen

Encourage replacement of animal collagen > plant collagen, conveying a sense of popularity

Functional competitive advantage of plant collagen compared to conventional collagen

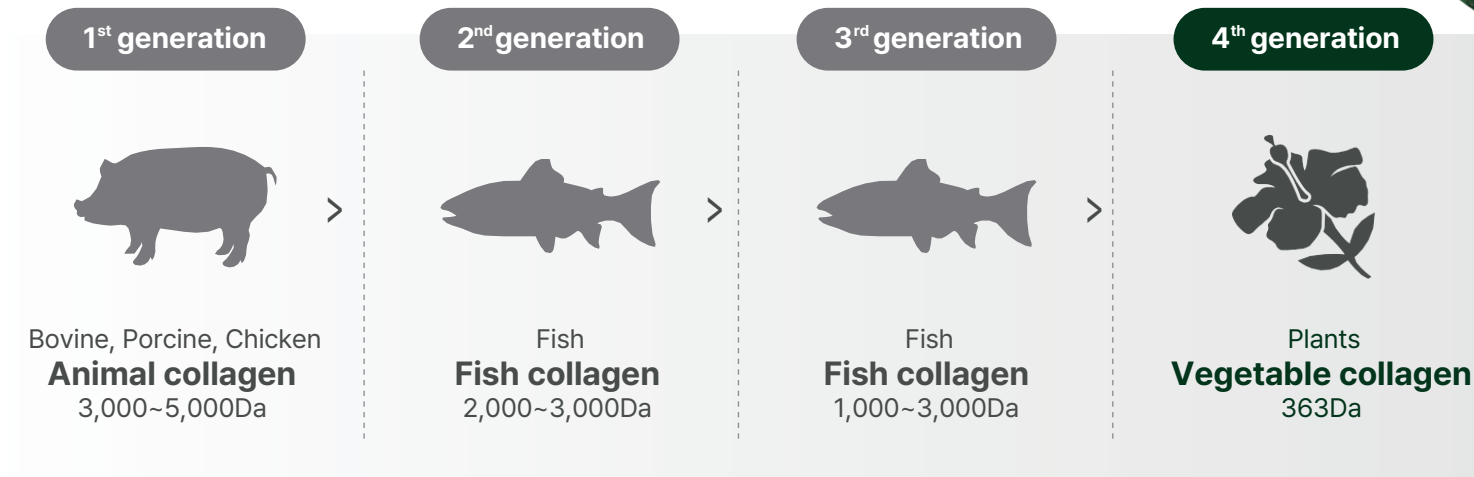
Verticalisation of the vegetable collagen industry

We have designed the entire value chain from raw material to final product.



Vegetable Collagen

The world's first plant-based collagen was inspired by the elephant's epidermis. After six years of R&D, we developed a technology to extract plant collagen from glycoproteins and commercialised it.



1st-3rd Generation Collagen

Highly polymeric and difficult to absorb into the body
Fishy taste inherent in animal sources

4th Generation Collagen

Ultra-small molecule with high absorption
Tasteless/odourless for easy consumption

The only alternative to animal collagen on the market

Vegetable collagen is the only alternative to the global USD 9.76 billion animal collagen market.

Safe ingredients



Sourced from organically grown plants in pristine Laos, our vegetable collagen is free from mad cow disease and microplastics.

0% fishy taste / synthetic additives

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저분자콜라겐펩타이드(기능성원료 인정 제2013-30호, 대만산), L-아스코브산나트륨, 아셀렌산나트륨혼합제제(아셀렌산나트륨, 제이인산칼슘), 비타민D3혼합제제(비타민D3, 아라비아검, 자당, 옥수수전분, MCT오일, 이산화규소, 비타민E), 비오틴, 결정셀룰로스, 엘라스틴가수분해물(프랑스산), 혼합제제[히드록시프로필셀룰로스, 히드록시프로필메틸셀룰로스, 이산화티타늄(착색료)], 이산화규소, 카복시메틸셀룰로스칼슘, 스테아린산마그네슘, 히알루론산

Plant-based collagen doesn't have the fishy taste of animal collagen and doesn't require synthetic additives.

Contains antioxidants



Contains phytochemicals, antioxidants unique to plants, such as polyphenols and flavonoids, which are not found in animal products.

Patent & Certification

PLANT has proven that it is a biologically, chemically and physically safe product through numerous patents and certifications.

Continuous research in progress other than SCI-level self-published thesis ¹

Food Composition Containing Collagen Peptide Patent Certificate ²

Pesticide ingredient non-detection report ³

Vegetable collagen peptide manufacturing method Patent certificate ⁴

KMF HALAL Certification ⁵

Heavy metal test report ⁶

Hibiscus Organic Certificate ⁷

Koreavegan Certification ⁸

ISO 9001 Quality Management System Certification ⁸

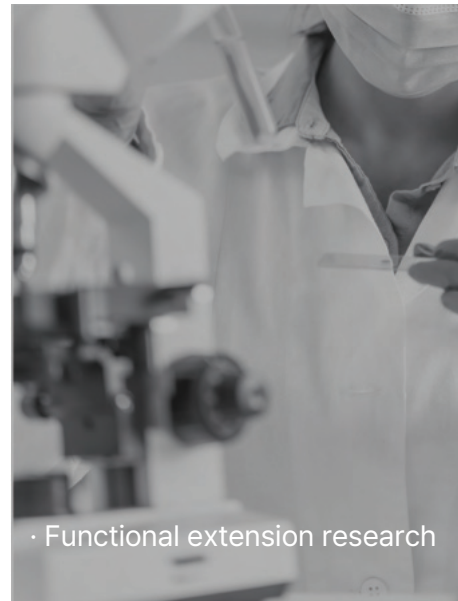
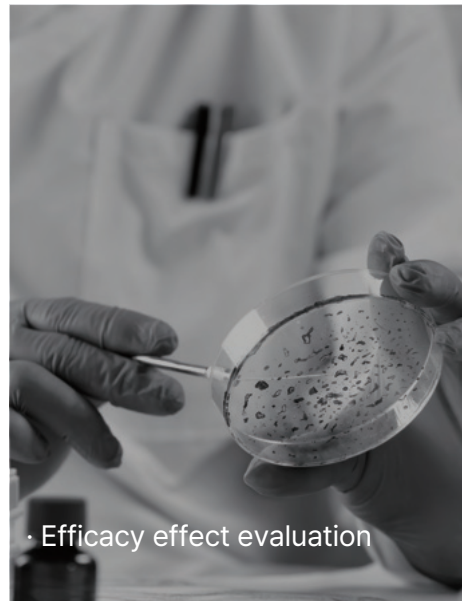
Ministry of Food and Drug Safety HACCP Certification ⁸



Research on plant-based functional ingredients

PLANT Research Team : 35 years of experience in research
A total of 10 people, including researchers with master's and doctoral degrees.

The plant research team wants to replace existing fish collagen with vegetable. Therefore, we developed vegetable collagen through patented advanced technology. We want to create a sustainable healthcare ecosystem by developing plant-based functional alternative raw materials.



B2B PARTNERS

We share the positive values of veganism and plant-based with a wide range of B2B partners both locally and internationally.

We provide an alternative source of plant-based collagen to the saturated collagen market. We are leading the sustainable vegan culture to popularise vegan inner beauty.

Supply of raw materials for plant-based collagen

- **D'Alba Veganery** : Vegetable Collagen 3,270mg / booster ampoule 5,000mg / First shot
- **Samyang Foods Vegetable Protein Drink** : Jack & Pulse Protein Drops
- **Everydaze** : Essential Konjac Jelly/Essential Collagen Solution



FROM THE GROUND

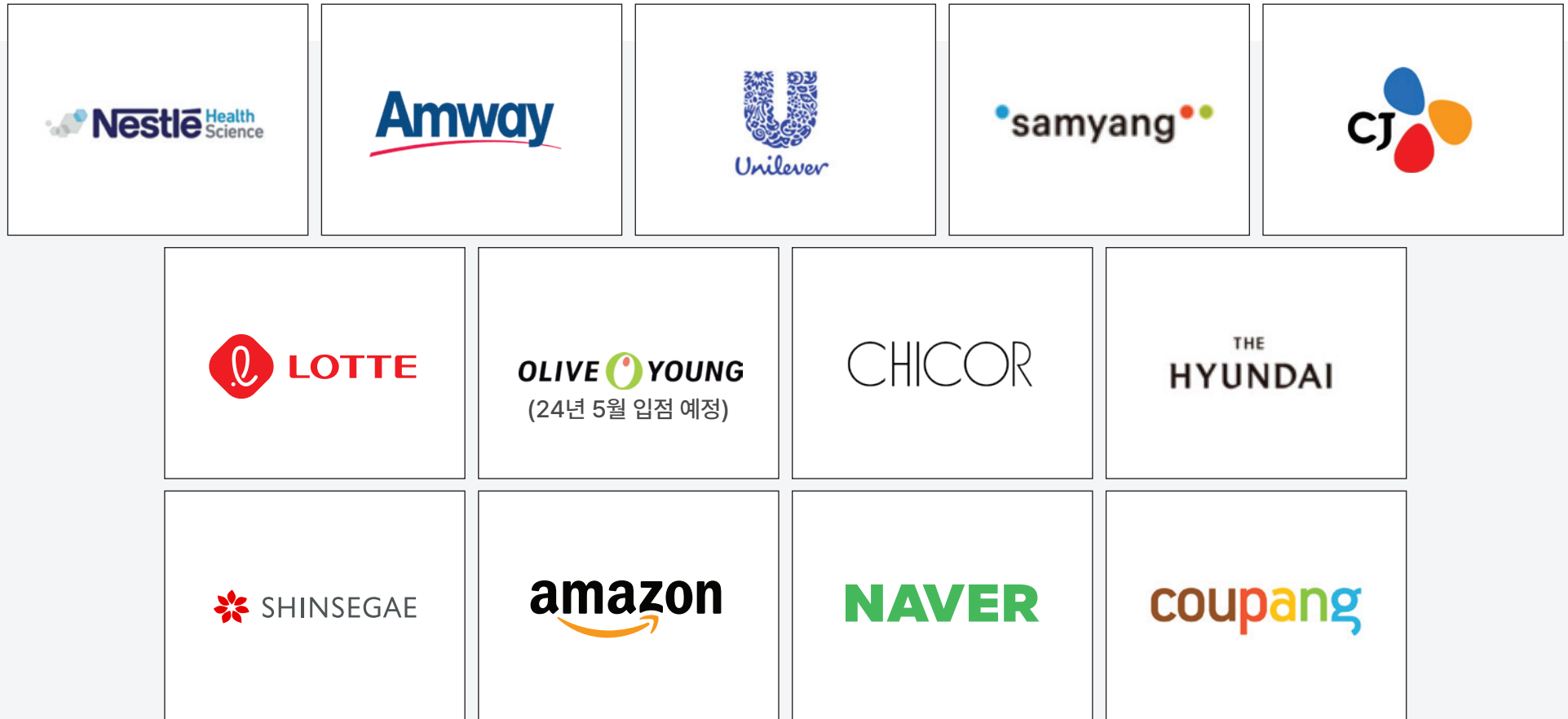
PLANT

PLANT is RAWGA's plant-based and sustainable inner beauty brand.



ONLINE Partners

We partner with nutrition specialists and companies to expand the reach of plant-based collagen.



OFFLINE STORE

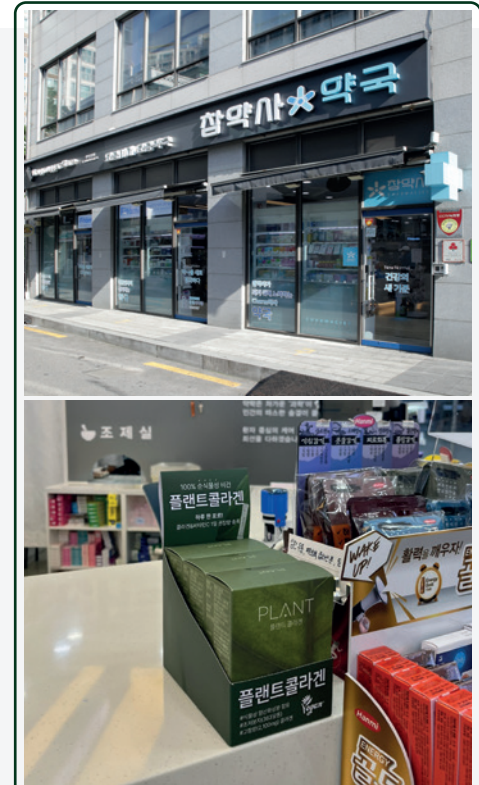
To engage with consumers, we are expanding our brick-and-mortar stores in consumer touch points at home and abroad.



THE HYUNDAI / SHINSEGAE Department Store



All Olive Young branches



Pharmacy chain
Charm Pharmacist

GLOBAL EXHIBITION

Through participation in the world's leading trade fairs, we are promoting the functional value of plant-based collagen as the next generation of inner beauty ingredients.



France, Paris
SIAL PARIS



USA, New York
Fancy Food Show



Germany, Cologne
Japan, Tokyo ANUGA



United Arab Emirates,
Dubai BEAUTY WORLD

RAWGA

Sustainable Health & Nutrition

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PLANT



You
Tube

TALK