Newsletter N°2

Overview on proteins and their applications
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1. Raw material production

**Grain sector**

Peru’s wheat production losing out to quinoa – 17/04/2017

Peru’s wheat production has been decreasing slightly each year as producers shift away from less profitable wheat to more lucrative grains such as quinoa. The market year 2017-18 forecast is 190,000 tonnes, down 13% compared to the year before, the U.S. Department of Agriculture’s (USDA) Foreign Agricultural Service (FAS) said in an April 4 report. […]

Source: world-grain

Canadian soybean industry predicts 10 million acres by 2027 – 13/04/2017

With increasing soybean acreage and production, the Canadian industry needs to improve its protein levels as well as the perception of its soybeans in the global marketplace, according to panelists at the Canadian Global Crops Symposium. […]

Source: world-grain

Forecast: Cereal markets in 2017/18 – 12/04/2017

Worldwide cereal production in 2017 is projected at 2,597 million tonnes, just 9 million tonnes short of the record set in 2016, according to the latest FAO Cereal Supply and Demand report. […]

Source: allaboutfeed

New wheat for healthy chicken bones – 05/04/2017

Researchers say they have come up with a special wheat that could reduce the need for feed supplements while at the same time provide key nutrients that promote healthy bones in poultry.

In a joint effort between researchers at Nottingham Trent University in England and Aarhus University in Denmark, the focus was on developing a bird with a strong bone structure. It was the scientists at the Department of Molecular Biology and Genetics at Aarhus University that discovered that wheat can be bred naturally to produce high levels of phytase, an enzyme needed to release phosphorous, which the bird requires to grow a healthy skeleton. While the Danish developed the wheat, the group in Nottingham tested it at the university’s own poultry research unit. […]

Source: allaboutfeed

**Oilseed & Oleo-proteaginious sector**

Market demand continues to rise for pulses – 20/04/2017

The Pulse Growers Association has recently released a nutrition breakdown for pulse crops that they commissioned, which gives protein, total starch and starch characteristics. The purpose of the study was to help with marketing efforts for pulse crops. […]

Source: willistonherald
Partners meet to stimulate responsible soy use – 19/04/2017

In January 2017, Aprosoja-MT, ABIOVE, FEDIOL, FEFAC and IDH signed a Memorandum of Understanding (MoU) to stimulate the production and trade of Brazilian responsible soy. […]
Source: allaboutfeed

Chemical composition of Brazilian chia seeds grown in different places – 15/04/2017

This study investigated and compared the occurrence and concentration of macronutrients, moisture, ash, dietary fiber, fatty acids, minerals, carotenoids, vitamins, flavonoids, phenolic compounds, antioxidant activity […]
Source: sciencedirect

Canadian soybean industry predicts 10 million acres by 2027 – 13/04/2017

With increasing soybean acreage and production, the Canadian industry needs to improve its protein levels as well as the perception of its soybeans in the global marketplace, according to panelists at the Canadian Global Crops Symposium. […]
Source: world-grain

Grain market Victoria: Bumper wheat, barley harvests boost pulses – 11/04/2017

THE huge yields of wheat and barley harvested last year are having some unexpected knock-on effects and pulse growers are starting to see some benefit. […]
Source: weeklytimesnow

New oilseed crop produces mustard seeds without mustard flavor – 07/04/2017

The University of Copenhagen and the global player Bayer CropScience have successfully developed a new oilseed crop that is much more resistant to harsh growing conditions and diseases than oilseed rape or canola. […]
Source: graincentral


Alternative proteins

Inside a $10 million aquafarm that grows slime-colored 'water lentils' – 12/04/2017

A new Florida-based food startup called Parabel is also trying to fulfill consumer's hunger for plant-based protein — by growing water lentils in a massive aquafarm. Water lentils taste similar to normal lentils (they have a sweet and mild planty flavor), but grow in nutrient-rich water rather than soil. […]
Source: businessinsider

Sewage sludge to animal feed: single cell protein production model – 06/04/2017

A Dutch research project, Power to Protein, is evaluating the potential to upcycle ammonia nitrogen from sewage water to a high value single cell protein for use in feed. […]
Source: feednavigator

Ajinomoto to invest $15m in plant protein company Hinoman – 27/03/2017
Aspartame producer Ajinomoto has agreed to invest $15 million in Israeli plant-based protein company Hinoman, at the same time acquiring the exclusive sales rights for its Mankai plant protein product in the Japanese market.

Source: foodbev
2. Fractioning, extraction and transformation

**Grain sector**

Impact of gluten-friendly™ technology on wheat kernel endosperm and gluten protein structure in seeds by light and electron microscopy – 15/04/2017

The main aim of this paper was to assess the impact of Gluten-Friendly™ (GF) technology (Italian priority patent n° 102015000084813 filed on 17th December 2015) on wheat kernel endosperm morphology and gluten protein structure, using SEM, light and immunofluorescent microscopy. […]

Source: [sciencedirect](https://www.sciencedirect.com/)

The Andersons purchases organic, conventional ancient grains processor - 10/04/2017

The Andersons, Inc. Grain Group announced it has recently purchased Purity Foods, Inc., an organic and conventional ancient grains processor in Hudson, Michigan, U.S. […]

Source: [world-grain](https://www.world-grain.com/)


The present invention is directed to a process for the removal of mycotoxins from insoluble plant-derived protein using density-based particle separators. The end product contains a substantial portion of the proteins, including insoluble proteins, and a low concentration of mycotoxin. The process is particularly useful for removing aflatoxins from corn meal protein.

Source: [wipo](https://www.wipo.int/)

WO/2017/052298 - Method for concentrating protein in grain powder - Cj Cheiljedang Corporation - 30/03/2017

The present invention relates to: a method for concentrating a protein in a grain powder; a protein-concentrated grain powder produced by the method; and a feed additive containing the protein-concentrated grain powder. In the method for concentrating a protein in a grain powder according to an embodiment of the present invention, the grain powder is subjected to an enzymatic treatment […]

Source: [Wipo](https://www.wipo.int/)

ADM buys Chamtor to strengthen European sweetener footprint – 31/03/2017

Archer Daniels Midland Company (ADM) has been granted exclusivity in relation to the proposed purchase of Chamtor, a French producer of wheat-based sweeteners and starches. “After adding to our sweetener and starch capabilities in Eastern Europe, […]

Source: [asiasfoodjournal](https://www.asiasfoodjournal.com/)

Newsletter produced by [Agricultural Research Institute (IAR)](https://iar.org/)
Tate & Lyle announce multiyear partnership with Codexis - 03/03/2017

The British agrifood giant has announced a new contract with American protein engineering firm Codexis. In the second such deal in recent months, London based ingredients manufacturer Tate & Lyle has unveiled a new extended partnership with Codexis, who [...] 

Source: foodnavigator

Oilseed sector

DuPont debuts SUPRO XT 55 isolated soy protein – 27/04/2017

New SUPRO XT 55 isolated soy protein is designed specifically to improve the profitability of ready-to-drink, high-protein beverages by helping beverage manufacturers more effectively manage protein costs. [...] 

Source: asiafoodjournal

Hempco begins hemp processing facility construction in Alberta, Canada – 19/04/2017

Hempco Food and Fiber has obtained a development permit from the County of Leduc for its hemp processing facility in Alberta, Canada. The company started the installation process for operation of its hemp seed food, hemp nutraceutical and hemp fibre processing equipment at its new site. [...] 

Source: foodprocessing

Pretreatment of flaxseed protein isolate by high hydrostatic pressure: Impacts on protein structure, enzymatic hydrolysis and final hydrolysate antioxidant capacities – 15/04/2017

The effect of high hydrostatic pressure (HHP) on flaxseed protein structure and peptide profiles, obtained after protein hydrolysis, was investigated. Isolated flaxseed protein (1%, m/v) was subjected to HHP (600 MPa, 5 min or 20 min at 20 °C) prior to hydrolysis with trypsin only and trypsin-pronase. The results demonstrated that HHP treatment induced [...] 

Source: sciencedirect

Changes in the structure and dissociation of soybean protein isolate induced by ultrasound-assisted acid pretreatment – 13/04/2017

Structure and dissociation properties of soybean protein isolate (SPI) induced by ultrasound and acid were investigated. Results of solubility showed that ultrasound-assisted acid had no effect on the content of soluble aggregates in SPI [...] 

Source: sciencedirect

Naturally Splendid Enters Distribution Agreement with First Step Japan for Hemp proteins – 13/04/2017

Naturally Splendid (TSXV:NSP) is pleased to announce they have entered into a marketing and distribution agreement with First Step Japan (“FSJ”), to market its NATERA® CBD product line in Japan, the world’s third largest economy. 

Source: investingnews
Naturally Splendid to Market Natera Hemp Protein 369 at Food Expo in Vancouver – 07/04/2017

Naturally Splendid (TSXV:NSP) is pleased to announce it will be launching a first to the Canadian retail market, a HempOmega™ fortified protein blend under its NATERA® brand at the Canadian Health Food Association (“CHFA”) West Expo, in Vancouver on April 8th-9th 2017 in Vancouver. [...] 
Source : investingnews

Oleo-proteaginous sector

Chickpea Startup Gets $8 Million Capital Boost – 24/04/2017

Plant-protein company Nutriati received a sizable investment from firms in London, San Francisco, Los Angeles, and Virginia to help bring its in-demand products to market. [...] 
Source : vegnews

Israeli company CHiCK.P is developing chickpea protein – 20/04/2017

Israel-based startup CHiCK.P plans to enter the lucrative plant-based protein market with its tasteless, high-protein chickpea products. Founded by Ram Reifen, MD, professor of human nutrition at the University of Jerusalem, the company produces chickpea concentrates with 60-90 percent protein content and isolates with more than 90 percent protein content. [...] 
Source : vegnews

Garbanzo-powered startup nears $10M capital raise – 18/04/2017

Nutriati, a 4-year-old Richmond startup that specializes in breaking down chickpeas into ingredients for health food manufacturers, is nearing completion of a $10 million equity fundraising round, according to a recent SEC filing. [...] 
Source : Richmondbizsense

Peanut protein extraction conditions strongly influence yield of allergens Ara h 1 and 2 and sensitivity of immunoassays

The clinical importance of peanut (Arachis hypogaea) allergies demands standardized allergen extraction protocols. We determined the effectiveness of common extraction conditions (20 buffers, defatting reagents, extraction time/temperatures, processing, extraction repeats) on crude protein and Ara h 1 and 2 yields. [...] 
Source : sciencedirect

Anchor Ingredients to Build Pea Protein Processing Plant to Service Both the Food and Pet Food Markets - 03/04/2017

Anchor Ingredients Co., LLC (“Anchor”), a leading supplier of quality ingredients for the export, food and pet food industries, has broken ground on a pea protein facility in North Dakota. The strategic investment will propel Anchor to a leading position in the rapidly expanding pulse ingredient space. Anchor’s new pea fractionation facility will expand its capacity and help address the growing customer demand for plant based proteins. [...] 
Source : globalnewswire
**Milk protein**

Agropur Ingredients develops GMP protein for use in functional foods and beverages - 26/04/2017

Agropur Ingredients has developed a process of isolating a form of glycomacropeptide (GMP), a substance that may have positive implications for people diagnosed with phenylketonuria (PKU), from whey after cheesemaking. [...] 

Source: dairyreporter

Arla’s investment to strengthen IMF production in Denmark – 11/04/2017

International dairy company Arla Foods is planning to invest €12m to upgrade its AKAFA site in Northern Denmark, in order to enhance its infant milk formula (IMF) production. The investment would enable the company to add IMF production to its existing powdered milk capacity. [...] 

Source: foodprocessing

WO2017059440 - Protein hydrolysate, method for making, and use - Glanbia nutritionals – 06/04/2017

Disclosed is a method for recovering protein hydrolysates from high-fat protein concentrates. The method can be used, for example, to produce a whey protein hydrolysate from the by-product retentate of the manufacture of whey protein isolates, as well as to isolate the milk fat globule membrane from a high-fat whey protein concentrate starting material. [...] 

Source: Wipo

Controlled glycation of milk proteins and peptides: Functional properties – 04/2017

Glycation of milk proteins and peptides can be achieved by Maillard-induced conjugation of reducing carbohydrates with the available amino groups of proteins/peptides during the early stages of the Maillard reaction. This conjugation can be achieved under wet or dry heating conditions, with the choice of heating mode influencing the rate and extent of conjugation, in addition to the functionality of the conjugated protein/peptides. Conjugation has been shown to modify the technological and nutritional properties of a range of milk protein/peptide-based ingredients. [...] 

Source: science direct

**Alternative proteins**

WO/2017/066880 - Edible insect derived products and processes for the manufacture and use thereof - C-FU FOODS INC - 27.04.2017

Edible food protein products derived from insects, such as edible textured insect proteins, insect protein concentrates and insect whey protein concentrates, and processes to produce those products, are described. [...] 

Source: Wipo
A recyclable protein resource derived from cauliflower by-products: Potential biological activities of protein hydrolysates – 15/04/2017

Cauliflower by-products (CBP) are rich in leaf protein. Every year tons of CBP will lead to environmental pollution. Therefore, this study was conducted to extract leaf protein from CBP and investigate its biological activities. […] 
Source: sciencedirect

A novel enzymatic approach based on the use of multi-enzymatic systems for the recovery of enriched protein extracts from potato pulp – 01/04/2017

Ten commercial available multi-enzymatic systems have been explored for the efficient recovery of patatin and protease inhibitors from potato pulp. Their enzyme activity profile was characterized, where corresponding enzyme activity profile led to similar protein recovery yield. […] 
Source: sciencedirect

Pyrolysis characteristics and pathways of protein, lipid and carbohydrate isolated from microalgae Nannochloropsis sp. – 04/2017

Microalgal components were isolated gradually to get lipid-rich, protein-rich and carbohydrate-rich components. The aim of this work was to study pyrolysis mechanism of microalgal by real isolated real algae components. Thermogrametric analysis (DTG) curve of microalgae was fitted by single pyrolysis curves of protein, lipid and carbohydrate except special zones […] 
Source: sciencedirect
3. Formulation and application development

*Food applications*


The present invention relates to a protein mixture and also to a food composition comprising such a mixture for feeding adult individuals, sportsmen and sportswomen, elderly individuals, or individuals requiring an improvement in their physical condition, [...]

*Source*: Wipo

**Glanbia’s patent-pending powder process removes need for lecithin in drinks – 27/04/2017**

Glanbia has developed BevEdge, a patent-pending technology that allows manufacturers to remove lecithin from protein powders and beverages, cleaning up the ingredient list and removing a potential allergen. [...]

*Source*: foodnavigator

**Unilever Adds More Vegan Mayo to Brand Portfolio – 26/04/2017**

The food corporation acquires condiment brand Sir Kensington’s—the makers of the first aquafaba-based commercial vegan product Fabanaise. [...]

*Source*: vegnews

**Plant-based brand Fry’s adds quinoa and rice protein burger – 24/04/2017**

Plant-based food brand Fry’s has launched a new gluten-free quinoa and brown rice protein burger. The healthy need concept will sit within the brand’s Nature’s Plant Protein range as an everyday meal solution for consumers adhering to a plant-based diet. It features a carefully balanced mix of plant protein [...]

*Source*: foodbev

**SternLife introduces new protein concepts – 24/04/2017**

SternLife has come up with attractive product ideas that enable the sellers of sports and health foods as well as drugstores and supermarkets, with their own private brands, to cater for the ongoing protein trend [...]

*Source*: asiafoodjournal

**Impossible Burger is rapidly expanding its distribution – 20/04/2017**

The plant-based burger is rapidly expanding its distribution with plans to produce 1 million pounds of vegan meat per month by year end. [...]

*Source*: vegnews
Deliciously Ella expands portfolio with the launch of new protein ball – 20/04/2017

Award-winning cookery author and entrepreneur, Deliciously Ella, continues to expand in the on-the-go food category with the launch of a brand new product; the all-natural, plant-powered, Almond and Blueberry Protein Ball. [...]  
Source: fdin


In order to improve the nutritional value of a textured food product, a method of manufacturing a textured food product has been invented. The method comprises the steps of: - preparing a slurry comprising dry matter and water, i) wherein the dry matter comprises: 1. at least 35% by weight legume protein [...].  
Source: Wipo

Arla extends popular Protein range with two new innovations – 19/04/2017

As protein continues to reign king with consumers Arla, the farmer-owned dairy company, is continuing to innovate within the dairy sector by extending its popular Arla Protein range with the launch of two new products – Arla Protein Pouches and Arla Protein Greens. [...]  
Source: fdin

Plant protein may protect against type 2 diabetes, meat eaters at greater risk – 19/04/2017

A new study adds to the growing body of evidence indicating that the source of dietary protein may play a role in the risk of developing type 2 diabetes. The researchers found that plant protein was associated with a lower risk of type 2 diabetes, while persons with a diet rich in meat had a higher risk. [...]  
Source: sciencedaily

Mars expands range with Protein Powder launch in UK – 18/04/2017

Mars Inc is expanding its range of protein-enhanced products in the UK with the launch of a protein powder under its namesake chocolate brand. The company said the move, which follows the launch of protein bars in the UK under its Mars, Snickers and Bounty brands, is in response to "the increasing appeal" of such products to "everyday lifestyle users". [...]  
Source: just-food

Researchers perfecting gluten-free bread production – 18/04/2017

Researchers at Hiroshima University in Japan have found a way to produce gluten-free bread with rice flour that has a consistency and volume similar to wheat flour loaves, without the use of additives. [...]  
Source: world-grain

Gluten-free pasta incorporating chia (Salvia hispanica L.) as thickening agent: An approach to naturally improve the nutritional profile and the in vitro carbohydrate digestibility – 15/04/2017
A gluten-free pasta was prepared adding chia at rice flour for testing the thickening and nutritional properties of this specie. Chemical analysis showed chia is a source of protein (19.52% and 15.81%, seeds and mucilage respectively), insoluble/soluble dietary fiber ratio (4.3 and 1.79 seeds and mucilage respectively), fat and ash content. The total phenolic acids content ranged from 734.5 µg/g to 923.9 µg/g for seeds and mucilage respectively [...] 

Source: sciedirect

Danone Plans for Global Expansion of Plant-Based Foods – 17/04/2017

Upon completing its acquisition of WhiteWave Foods, the yogurt giant announces plans for expanding the reach of plant-based brands Silk, So Delicious, Vega, and Alpro. French multinational company Danone announced last week that it completed its $12.5 billion acquisition of WhiteWave Foods—parent company of plant-based brands Silk, So Delicious, Vega, and Alpro. The brand will form a business strategy unit in North America under a new name, “DanonWave.” In Europe, Danone plans to use its new Alpro brand—a leading maker of plant-based products—to expand globally. [...] 

Source: vegnews

The impact of protein cross-linking induced by alkali on the quality of buckwheat noodles – 15/04/2017

The impact of alkali addition on the dough rheological properties and quality of buckwheat noodles was investigated. Farinograph measurements showed that the addition of alkali increased the water absorption and development time of the dough. [...] 

Source: sciedirect

Gelation of soybean protein and polysaccharides delays digestion – 15/04/2017

Xanthan gum and carrageenan, representing the medium and highly negatively charged polysaccharides, were heated respectively together with soybean protein isolate (SPI) at different biopolymer ratios. Upon mixing with simulated stomach juice (SSI), the xanthan-SPI and carrageenan-SPI at biopolymer ratios higher than 0.01 leads to self-assembled gelation immediately. Stronger gel is formed under higher biopolymer ratios. [...] 

Source: sciedirect

Prediction of heat-induced polymerization of different globular food proteins in mixtures with wheat gluten– 15/04/2017

Egg, soy or whey protein co-exists with wheat gluten in different food products. Different protein types impact each other during heat treatment. A positive co-protein effect occurs when heat-induced polymerization of a mixture of proteins is more intense than that of the isolated proteins. The intrinsic protein characteristics of globular proteins which enhance polymerization in mixtures with gluten are unknown. In this report, a model was developed to predict potential co-protein effects [...] 

Source: sciedirect

EP3151686 - potato based protein mixtures and nutritional compositions comprising potato protein -

Potato protein, in combination with other vegetable proteins, replaces a portion of the total protein in a nutrition drink or shake or other nutritional composition intended for oral consumption. By suitable selection of the types and amounts of these proteins the overall cost of manufacturing the nutritional composition can be reduced without
adversely affecting its other desirable properties such as nutritional value, stability, solubility, clarity, taste, and mouthfeel. [...] 
Source: Wipo

Oats and gluten: A source of confusion and the problem for people with coeliac disease – 10/0/2017

Attention has been given by industry in the United States to the idea of “gluten free” oat products, and how to minimise the impact for those with coeliac disease. However, this article considers the science in relation to the allergenicity of oats [...]
Source: ausfoodnews

Pulses are popular but don’t stop investing in consumer awareness, say researchers – 10/04/2017

The Year of the Pulse may be over but pulses are still a trending ingredient, although industry needs to invest in greater consumer awareness if it is to benefit from the buzz, according to researchers. [...] 
Source: foodnavigator

Chickpea Crop Doubles to Fill Vegan Protein Demand – 08/04/2017

According to new estimates released by the United States Department of Agriculture, US farmers expect to produce 53 percent more chickpeas [...]
Source: vegnews

Velositol May Boost Whey Protein’s Effect on Muscle Protein Synthesis – 07/04/2017

Velositol, a supplement formula from Nutrition 21 (Purchase, NY) that combines amylopectin and chromium, may double the muscle protein synthesis (MPS) rate when taken with whey protein, compared to whey-protein supplementation alone, according to a new study published in the Journal of the International Society of Sports Nutrition. [...] 
Source: nutritionaloutlook

Celiac disease could be caused by a regular virus – 07/04/2017

A new study shows that an innocuous type of virus could be a trigger for the celiac disease condition. Reovirus infections are usually harmless to humans, but according to recent findings, these could cause an immune system response to gluten and therefore the known celiac disease. [...] 
Source: pulse headlines

A recent study was reported as showing plant-based protein was more effective for building muscle than that from animals – 07/04/2017

Do vegan bodybuilders have the edge? A recent study was reported as showing plant-based protein was more effective for building muscle than that from animals. The higher environmental impact of eating a diet rich in meat and dairy products could also provide a reason for gym enthusiasts to switch to a plant-based diet. [...] 
Source: scroll
WO2017059035 - Edible composition with protein - INTERNATIONAL IP HOLDINGS LLC – 06/04/2017

The disclosure relates to an edible composition that provides protein and an energy blend. [...]  
Source: Wipo

Making gains in gluten-free nutrition – 06/04/2017

As calls to enhance the nutritional profile of gluten-free products amplify, the possibilities of such improvements increase. Nuts, pulses and ancient grains, used both as ingredients and flour sources, may boost protein and fiber levels.  
Source: foodbusiness

General Mills Invests in Vegan Breakfast Company – 06/04/2017

Food corporation General Mills has made a sizeable investment in another vegan company, breakfast brand Purely Elizabeth. [...]  
Source: vegnews

Mars launches Bounty protein bar to join previous protein launches – 05/04/2017

Mars Chocolate UK has added a new high-protein version of its Bounty bar in the UK. [...]  
Source: foodbev

Low acceptance of insect-derived foods not all about taste: Study – 05/04/2017

An unwillingness to eat foods like insects may have more to do with food appropriateness than its actual taste as findings could have implications for consumer acceptance of other protein sources. Conclusions recommended that future product development for culturally inappropriate foods should [...]  
Source: foodnavigator

Danone Drops Stonyfield Yogurt to Seal WhiteWave Deal – 04/04/2017

The international dairy giant agrees to sell off assets in yogurt brand Stonyfield to eliminate unfair competition between its dairy and plant-based holdings. French multinational dairy company Danone—known as Dannon in US markets—has come to an agreement with the United States Department of Justice to liquidate its holdings in yogurt brand Stonyfield. [...]  
Source: vegnews

Peanut protein, bioactives keep arteries open – 03/04/2017

Research from The Pennsylvania State University shows a new way in which peanuts may reduce the risk of heart disease. This study, published in The Journal of Nutrition, is the first to show that peanuts, especially peanut protein and bioactives, help keep your arteries flexible. [...]  
Source: asiafoodjournal
Tamarack Biotics’ TruActive MPC 85 is a new milk-based protein – 28/03/2017

Tamarack Biotics is launching a new milk-based protein today to be used in foods and beverages in the sports, early childhood and elderly nutrition categories. The dry dairy ingredient also has an application in the allergy suppressor market. Tamarack Biotics, based in Fresno, Calif., is selling milk protein concentrate 85 (MPC 85) under the name TruActive. It is said to contain more immune active proteins than any other food ingredient on the market. [...] Source: dairyfoods

WO/2017/046659 - Meat substitute - sunfed limited – 23/03/2017

A meat substitute comprising two or more sources of plant protein, or a meat substitute comprising one more sources of plant protein and a fruit, fruit powder, or chia seed extract, or a low allergen meat substitute that is optionally free of soy and optionally free of other allergenic ingredients* [...] Source: Wipo

US20170055548 - Flavor system for non-animal derived protein containing consumables – Givaudan – 02/03/2017

A flavor system for a non-animal derived protein consumable is provided. The flavor system includes an aqueous component; a protein binder including a mixture of at least one terpene and at least one carbonyl compound; one or more off-note blocking compounds; and a flavorant. [...] Source: wipo

Flavor Aspects of Pulse Ingredients – 02/2017

Pulses (Fabaceae) have regained interest for their high protein level. However, food application of pulses and pulse ingredients is hampered by several issues around their off-flavor. Off-flavors in pulses are partially inherent and partially produced during harvesting, processing, and storage. Generally, volatile off-flavor compounds in pulses belong to [...] Source: Cereal Chemistry

UK cricket flour energy bar wins ife 2017 Sustainable Packaging Award – 03/03/2017

Yumpa, a range of energy bars made with cricket flour, is the first of its kind in Europe to have an EU accredited fully compostable wrapper. The packaging won Yumpa’s maker Next Step Foods a World Food Innovation Award for Sustainable Packaging at this year’s ife, held in London last month. According to Tony Askins, founder of Sheffield-based Next Step Foods, the eco-friendly packaging streamlines with the sustainability of crickets. [...] Source: foodnavigator

Feed applications

Hamlet Protein focuses on young animal nutrition and growth – 24/04/2017

Stick to what you are good at. This expression is well suited for the Danish animal nutrition company Hamlet Protein. All About Feed talked to Søren Bank, chief commercial officer, and asked what their special expertise is and will be in the future. [...] Source: allaboutfeed

The present disclosure relates to bio-based N-acetyl-L-methionine and a preparation method thereof. Additionally, the present disclosure relates to a feed additive containing the N-acetyl-L-methionine, a feed composition containing the feed additive, and a method for raising animals which includes feeding a feed additive containing the N-acetyl-L-methionine or a feed composition containing the feed additive to animals. [...] 
Source: Wipo

US researchers turn to insect use for shrimp – 19/04/2017

Black solider fly larva meal may support growth and production of farmed shrimp, if used as a partial fishmeal replacement, says researcher. [...] 
Source: feednavigator

Bacterial single cell protein shows benefits in salmon, shrimp diets: study - 19/04/2017

A single cell protein from bacterium Methylobacterium extorquens show similar digestion and supported growth for farmed salmon and shrimp when replacing fishmeal, says researcher. [...] 
Source: feednavigator

Skretting wants to grow its fish meal free concept - 14/04/2017

After a successful transition to fish meal free diets for salmon, Skretting, the fish feed division of Nutreco ,want to roll out this concept to other farmed fish species. [...] 
Source: allaboutfeed

Soy Protein Concentrate in Weanling Pig Diets – 12/04/2017

Plant-derived proteins are less expensive than animal proteins if used in weanling pig diets, but may contain anti-nutritional factors that can negatively affect gut health and growth performance. However, results of a new study from the University of Illinois indicate that soy protein concentrate (SPC) may be partly or fully substituted for animal proteins without adverse effects. [...] 
Source: feedingredientfirst

Colostrum and milk protein rankings and ratios of importance to neonatal calf health using a proteomics approach – 04/2017

Administration of colostrum to the newborn calf before gut closure is pivotal to its health, because of the transfer of passive immunity. Traditionally, passive immunity has been attributed to the transfer of immunoglobulins although it is increasingly clear that multiple other factors contribute, including innate immune proteins, developmental factors, immunomodulatory factors, and the presence of cellular immunity. The objective of this study was to produce a comprehensive comparison of the bovine colostrum proteome and the milk proteome [...]
Source: sciencedirect

How to use alternative, plant-based proteins in pet food -08/04/2017
As the world’s population grows and animal proteins become scarcer for pet food applications, emerging proteins, derived from legumes, duckweed and algae may soon fill the niche.[…]

Source: petfoodindustry

Danish study shows microalgae could work as fishmeal alternative -29/03/2017

A researcher based at the Technical University of Denmark (DTC) says he has found a method to make microalgae derived cost-effective fish feed ingredients. Recent years has seen industry hunt to find new, alternate and sustainable fish feed ingredients, primarily in anticipation of an increasing world population and predicted insufficient supply of fishmeal – a critical raw material component of aquaculture feed.[…]

Source: feednavigator

Yeast-derived proteins promote health, performance – 05/04/2017

For just-weaned piglets, it is essential to receive protein sources that are highly digestible. Not every source is available everywhere, due to legislation restrictions. Yeast-derived protein does not have harmful side effects and is well-researched. […]

Source: pigprogress

Mealworm meal supports shrimp growth, development – 04/04/2017

Farmed shrimp may be set to see a change in menu options from fishmeal to mealworm meal, as the alternative feed ingredient supports growth and production, say researchers. A team of researchers in Brazil examined the use of mealworm meal (MM) in the diet of farmed shrimp as a potential replacement protein for fishmeal. The group published its work in the journal Aquaculture. […]

Source: feednavigator

Fish-free feed challenge prompting industry trials – 04/04/2017

Several aqua feed producers have said they will offer feeding trials to the companies that win or are finalists in the F3 Fish-Free Feed Challenge. Interest in the contest from the aqua feed industry showing there is growing demand for the use of alternative feed ingredients to replace marine protein sources, […]

Source: feednavigator

Cosmetic applications

Sederma Complemented Matrixyl Inside® Range with Matrixyl® Morphomics™ at in-cosmetics Global – 20/04/2017

Sederma launched Matrixyl® Morphomics™, in the continuity of the Matrixyl Inside® range at in-cosmetics Global. It is a newly discovered anti-wrinkle Matrikine™ that took advantage of the latest scientific technologies and Sederma’s expertise in both peptide research and claim substantiation to offer the best in skin rejuvenation. […]

Source: specialchem

WO2017065508 - Cosmetic composition including water soluble scrub particles containing polypeptide and/or cell culture- PAEAN AESTHETICS INC – 20/04/2017
The present invention relates to a non-water-based cosmetic composition including water soluble scrub particles containing polypeptide or cell culture components [...] 
Source: Wipo

Influence of glycosylation of deamidated wheat gliadin on its interaction mechanism with resveratrol – 04/2017

Gliadin is a main composition of wheat storage protein with unique characteristics. Polyphenol with health benefits tends to form complex with protein. In this study, glycosylation of deamidated wheat gliadin (gliadin) was carried out. Fluorescence quenching was applied to evaluate their binding mechanisms with resveratrol. Results showed that glycosylation could increase the solubility and decrease the surface hydrophobicity of gliadin. [...] 
Source: scientedirect

WO/2017/057855 - Cosmetic Composition Containing Soybean Protein Emulsifier - Amorepacific corporation - 06.04.2017

The present invention relates to a cosmetic composition containing a soybean protein emulsifier and a thickening agent and thus having improved emulsification stability of water-soluble ingredients and fat-soluble ingredients. The cosmetic composition according to the present invention can achieve a simplified process and increased productivity, and can alleviate the problem of inherent odor of the soybean protein, so that the cosmetic composition can be contained in a higher content than the amount used in the past, and thus can be used alone as a surfactant in a cosmetic agent. [...] 
Source: Wipo

Natural peptide to restructure and contour skin for a firmer, more sculpted face – 04/04/2017

TRI-K Industries, Inc. will be bringing new product innovation to in-cosmetics Global, London. Launching at the show, TRI-K has developed NaturePep Sacha Inchi, a new botanical based natural peptide, the next of their NaturePep platform, which is clinically proven to significantly reduce facial sagging and restructure skin by increasing density to create a more sculpted jawline. [...] 
Source: cosmeticbusiness

WO/2017/053667 - Methods of treating diseases using grape protein – 30/03/2017

A food composition for human consumption comprising a plurality of grape ingredients, wherein the plurality of grape ingredients comprise ground flesh, seed, stem, and skin from grapes, and wherein the plurality of grape ingredients further comprise one or more KH Grape proteins. A method of treating a certain disease in a patient comprising administering the food composition to a patient in need thereof, wherein the food composition has a concentration of KH Grape protein above 0%. [...] 
Source: wipo

EP3145943 - Peptides, compositions comprising them and uses in particular cosmetic uses – Sederma SA - 29/03/207
The peptides have the general following formula: X–Pro*–Pro*–Xaa–Y in which: • Xaa is selected from Leucine (Leu, L), Arginine (Arg, R), Lysine (Lys, K), Alanine (Ala, A), Serine (Ser, S), and Aspartic acid (Asp, D); • At the N terminal end of the peptide, X is selected from H, -CO-R1 and -SO2-R1; • At the C terminal end of the peptide, Y is selected from [...] 
Source: Wipo


The present invention relates to a novel antimicrobial peptide derived from myxinidin peptide, and a use thereof. The novel antimicrobial peptide (myxinidin 2 and myxinidin 3) of the present invention exhibits both excellent antimicrobial activity [...] 
Source: Wipo

Technical applications

Protein-based nanoparticles: From preparation to encapsulation of active molecules – 30/04/2017

Nowadays, nanotechnology has become very integrated in the domain of pharmaceutical sciences since nanoparticle dispersions show various advantages as drug carriers. Among nanoparticles, the protein-based ones are of paramount importance. In fact, protein nanoparticles show many advantages over other types of nanoparticles, they are often non-toxic and biodegradable. In this review, the most common preparation methods of protein nanoparticles were targeted. In addition, the factors affecting their dispersions and the concepts of drug loading and drug release are also highlighted. It was obvious that each method can be optimized for a given protein. This issue was discussed in depth in the light of the current state of art, and supported by evidences for each method from the literature. In addition, it was concluded that the processing parameters strongly affect the properties of nanoparticles dispersion. [...] 
Source: science-direct

Irish precision player zooming in on targets in the feed space – 07/04/2017

Innovative encapsulation developer, AnaBio Technologies, says it is starting to gain traction in the animal feed sector. Its patented technology uses milk proteins and other biomaterials to create capsules that protect and deliver sensitive ingredients to a target site. [...] 
Source: feednavigator

WO/2017/055557 - Composition comprising ground plants, maltodextrin and silicone - Evertree – 06/04/2017

The present invention relates to a composition comprising ground plants containing proteins, maltodextrin and silicone. It also relates to an adhesive composition and articles comprising it, the preparation processes and uses thereof. [...] 
Source: wipo

WO/2017/046626 - The Charisma Natural Absorbent Core - Wicker Ip Royalties Pty Ltd – 23/03/2017
The present invention relates to an engineered natural absorbency method to be used in all Hygiene products including baby disposable nappies/diapers. The absorbency methodology will be used in medical processors, absorbency of body fluids of any type and spills of any form. The innovative solution has been researched and developed to minimise the risk on babies in toxic chemical sodium polyacrylate which is also known as SAP (super absorbent polymer) used in all types of baby diapers and hygiene products. [...] 

Source: Wipo
4. Regulation & labels

Greening the animal feed sector: carbon footprint database development – 20/04/2017

A project to benchmark the environmental impact of feed, under the Global Feed LCA Institute (GFLI) initiative, is gathering steam. EU and North American feed industry partners are building a freely accessible global database to register the environmental performance of the main livestock and fish feed ingredients from cultivation through to production through to the livestock farm gate.

Source: allaboutfeed

European Commission launches grain-based protein balance sheet -12/04/2017

For the first time the European Commission has published a comprehensive E.U. protein balance sheet that overviews the total E.U. production, consumption and trade of all marketable sources of proteins used in animal feed production. […]

Source: world-grain

AAFCO discusses use of unacceptable pet food ingredients – 10/04/2017

The Association of American Feed Control Officials (AAFCO) held its "mid-year" meeting on January 16–18 in Mobile, Alabama, USA. The deliberations of the Pet Food Committee, which obviously affect all pet food and specialty pet food manufacturers […]

Source: petfoodindustry

State Fund Agriculture transferred over BGN 30 million for protein crops – 07/04/2017

Bulgarian State Fund Agriculture paid BGN 30,025,968 under the Coupled Support Scheme for protein crops, the press centre of State Fund Agriculture announced. The subsidies were transferred to 15,072 farmers who have applied for support under the 2016 Campaign, and complied with the requirements. The financial aid is part of the schemes for direct payments with a total budget of BGN 30.9 million (EUR 15.8 million). Grants received farmers who processed at least 0.5 hectares of beans (grain), lentils, chickpeas, green peas, winter or spring pea seeds, peanuts, soybeans, broad beans, alfalfa, sainfoin, vetch, clover, vigna, bitter vetch, lupine, trefoil, and/or mixtures of them.

Source: focus-fen
5. Events

Vitafoods Europe 2017

Dates: May 9th - 11th, 2017
Location: Geneva - Switzerland

Vitafoods Europe is where the nutraceutical supply chain does business. It attracts 18,500+ senior decision-makers across the globe within four key industry areas; Ingredients & Raw Materials, Contract Manufacturing & Private Label, Services & Equipment and Branded Finished Products.
Source: Vitafoods

The International Symposium on Green Chemistry

Dates: May 16th - 19th, 2017
Location: La Rochelle, France

The main objective of ISGC-2017 is to gather the most eminent scientists involved in the field of green chemistry to debate on the future challenges of Chemistry keeping in mind the problems of access to a sustainable energy, the management of resources (carbon, water, metals, minerals), Human development, global warming, impact on the environment and competitiveness of our Industry. To contribute to solve this complex equation, ISGC-2017 has been thought as a cross-disciplinary platform and should offer to public and private scientists an ideal platform for sharing fundamental knowledge with industrial research and development stakeholders.
Source: ISGC

SIAL China - 2017

Dates: May 17th - 19th, 2017
Location: Shanghai, China

SIAL CHINA, Asia’s largest food innovation exhibition, closed its door on 7 May recording a further increase in the level of internationality on both the exhibitor and visitor side. Altogether, 2,942 exhibitors (+ 7.6% vs 2015) from 67 countries all over the world and 30 provinces in China presented their latest products and food trends, which attracted over 76,986 visits (+25.6% vs 2015). This year’s SIAL CHINA took place on 126,500 square meters of exhibition space. SIAL CHINA’s dedication to “look deeper” comes true with a significant breakthrough in its internationality.
Source: SIAL China

Protein Trends & Technologies Seminar - 2017

Dates: May 23th - 24th, 2017
Location: Itasca, Illinois, USA

Protein Trends & Technologies Seminars focus on the development of protein-enhanced foods, beverages and nutritional supplements. Core to the conference is a Technical Program with speakers presenting on protein food science, consumer interest, emerging nutritional benefits and regulatory issues. Starting in 2014, a pre-conference was added that provides strategic business information for the protein ingredient industry.
BIOFACH CHINA 2017

Dates: May 25th - 27th, 2017
Location: Shanghai, China

Since 2012, the consumption of organic food accounted for 1.01% of the whole consumption of food, up by 0.65% compared with 0.36% in 2007. It is predicted that the Chinese organic market scale will reach 24.8 billion to 59.4 billion RMB in 2015. According to the growth momentum, the market share of organic food is going to reach 2% among the overall food market.

Organized by NürnbergMesse and China Green Food Development Center, BIOFACH CHINA is the daughter show of BIOFACH, the world’s biggest organic trade fair annually held in Nürnberg, Germany. Since 2007, BIOFACH CHINA has developed into the most influential organic trade fair in China. Under the patronage of IFOAM, it is the only trade fair in China which specially focuses on certified organic products.

Source: biofach

Hi China & Fi Asia-China 2017

Dates: June 20th - 22th 2017
Location: Shanghai, China

Hi China 2017 takes place from 20-22 June in the SNIEC, Shanghai. China is a key food and beverage market for businesses globally and HI China, together with it’s co-located events delivers the entire value chain for the health ingredients, food ingredients, nutraceuticals and functional food industries, all under one roof. Co-located shows and pavilions include: HI China: health and natural ingredient suppliers, aswell as the international pavillion Fi Asia-China: local and international food ingredients suppliers Healthplex & Nutraceutical China: health finished products, dietary supplements, health foods and functional foods NEX: natural extracts suppliers Starches Expo: modified starch, starch sugar and starch processing machinery Expo FoodTec: solutions in processing, packaging, equipment and associated service

Source: Hi China

Building on more than 10 years of expertise in the bioeconomy as well as in the food and feed ingredients sector, IAR – The French Bioeconomy Cluster – supports companies as well as research and technology centres in their decision making.

Through its large network of experts and in-depth understanding of the business environment of bio-based industries, IAR has developed a large set of tools to back your decision making on strategic orientations : technico-economic studies, state of the art, market studies, technological and stakeholders mapping...

CONTACT: LOUIS TIERS – Competitive Intelligence officer - tiers@pole-iar.com - + 33 6 16 11 82 16