

# Spanish Green Biotech Pipeline\*

## INGREDIENTS, ADDITIVES AND PROBIOTICS

LOGO	COMPANY	NAME OR DESCRIPTION	INDICATION / PROPERTY	APPLICATIONS	R&D	VALIDATION	REGISTER	PATENT	AVAILABLE IN THE MARKET
	AB-Biotics	AB-Dentac	The first probiotic specifically designed to fight the oral pathogens causing the most common oral diseases: caries, gingivitis and bad breath	Food supplement, chewing gums, oral care products, syringes	✓	✓	✓	✓	✓
	AB-Biotics	AB-Dentisan	Probiotic formula which acts as a shield against caries, preventing the growth of caries-associated bacteria	Oral care products	✓	✓	✓	✓	✓
	AB-Biotics	AB-Fortis	Patented micro-encapsulation system that allows to deliver 100% of the iron CBR in a single dose, with high bioavailability and no adverse effects in taste or during the digestion	Dairy industry and nutritional supplements containing iron and vitamins.	✓	✓	✓	✓	✓
	AB-Biotics	IS.1	The first probiotic formula which produces a global improvement of quality of life in IBS patients, according to published clinical data	Pharma; capsules or sachets	✓	✓	✓	✓	✓
	AB-Biotics	AB-Kalicare	Probiotic formula for the treatment of infantile colic, which significantly reduces excessive crying in colicky infants according to clinical data	Dairy products, infant formula, Capsules, drops, sachets	✓	✓	✓	✓	✓
	AB-Biotics	AB-Singlac	Probiotic formula which improves biofilm formation by healthy oral flora, for optimal gum health	Food supplement, oral care products	✓	✓	✓	✓	✓
	AB-Biotics	AB-Intimus	Probiotic able to survive in an inflamed vaginal mucosa and restore the vaginal ecosystem and a healthy vaginal pH, useful to prevent vaginal infection recurrence. It can be used in co-therapy treatments with anti-mycotics	Vaginal care products	✓	✓	✓	✓	✓
	AB-Biotics	AB-Immuno	Probiotic formula with a specific functional effect for maintaining digestive health, enhancing systemic immunity and stimulating immunoglobulin production	Food supplement, food ingredient	✓	✓	✓	✓	✓
	AB-Biotics	AB-Life Plus	Probiotic formula combining AB-Life strains (which reduces total cholesterol levels by 12% on average) and an omega-3 source (Alpha-Linolenic Acid) to enhance total cholesterol, LDL-cholesterol and Triglycerides reduction	Food supplement	✓	✓	✓	✓	✓
	AB-Biotics	AB-Proscara	Probiotic formula with lactic acid bacteria and cranberry extract for treating and preventing recurrent urinary tract infections (UTI) such as cystitis	Food supplement	✓	✓	✓	✓	✓
	AB-Biotics	AB-Life Forte	Probiotic formula combining AB-Life strains (which reduces total cholesterol levels by 12% on average) and Monacolin K to enhance total cholesterol and LDL-cholesterol reduction	Food supplement	✓	✓	✓	✓	✓
	AB-Biotics	IronGast	Food supplement designed to meet the needs of pregnant women and their babies, containing AB-Fortis (Patented micro-encapsulation system that allows to deliver 100% of the iron CBR in a single dose, with high bioavailability and no adverse effects in taste or during the digestion)	Food supplement	✓	✓	✓	✓	✓
	AB-Biotics	IronLact	Food supplement designed to meet the needs of women during the lactation period and their babies, containing AB-Fortis	Food supplement	✓	✓	✓	✓	✓
	AB-Biotics	IronKid	Food supplement which contributes to the normal growth and development of children, with a special focus on their mental and cognitive development, containing AB-Fortis	Food supplement	✓	✓	✓	✓	✓
	AB-Biotics	AB-Life	Probiotic formula which reduces total cholesterol levels by 12% on average, according to published clinical data	Food supplement, dairy products, beverages	✓	✓	✓	✓	✓
	ALGAENERGY	AlgaeFood	High level of polyunsaturated fatty acid, ω3 type (EPA, DHA and ARA), proteins (essential aminoacids), vitamins, carotenoids, etc.	Oils and fats / Others / Natural Products	✓	✓	✓	✓	✓
	ALGAENERGY	AlgaeFood	Strains and extracts. Functional foods	Functional ingredients	✓	✓	✓	✓	✓
	ALGAENERGY	PhysoAlgae	PhysoAlgae	Functional ingredients, Food & Beverages	✓	✓	✓	✓	✓
	Aquilon CYL	AQ1203	Probiotic strains for the management of intestinal microbiota of newborn piglets	Routine management of newborn piglets	✓	✓	✓	✓	✓
	BIOGENOM	BIOGENOMID	Bio-identified probiotics strains or bio-identifiers based on stabilized nucleic acids that permit the molecular traceability of foods without viable DNA	Application of genetic accreditation of food traceability (GENOMID or other techniques) to food products without a viable DNA.	✓	✓	✓	✓	✓
	BIOHERICA	Chondroitin Sulfate	Osteoarthritis treatment	APIs (Active Pharmaceutical Ingredients)	✓	✓	✓	✓	✓
	BIOHERICA	Glucosamine	Osteoarthritis treatment	APIs (Active Pharmaceutical Ingredients)	✓	✓	✓	✓	✓
	BIOHERICA	Meliloe	Helps keep hyaluronic acid concentrations within a healthy range, thereby promoting comfortable joint mobility and reducing stiffness	APIs (Active Pharmaceutical Ingredients)	✓	✓	✓	✓	✓
	BIOHERICA	Oralvic	Metabolic Osteoarthritis	APIs (Active Pharmaceutical Ingredients)	✓	✓	✓	✓	✓
	BIOHERICA	Hyaluronic Acid	Osteoarthritis treatment	APIs (Active Pharmaceutical Ingredients)	✓	✓	✓	✓	✓
	BIOHERICA	B-Zool (Native Type II Collagen)	Food supplement ingredient for joints	APIs (Active Pharmaceutical Ingredients)	✓	✓	✓	✓	✓
	BIOHERICA	Mucopolysaccharides	Food supplement ingredient for joints	APIs (Active Pharmaceutical Ingredients)	✓	✓	✓	✓	✓
	BIOHERICA	Walsorb Cold	For joint and muscle pain relief (cold effect)	Sport Nutrition anti-inflammatory	✓	✓	✓	✓	✓
	BIOHERICA	Entere-Chronic	Complementary feed which helps maintaining intestinal functions	Digestive System	✓	✓	✓	✓	✓
	BIOHERICA	Pellico G2SP	Is a source of high-quality protein obtained from spray-dried hydrolysate from porcine intestinal mucosa	Aids in increasing feed intake and diet digestibility thanks to its exceptional characteristics, improving the production parameters and health of the animals	✓	✓	✓	✓	✓
	BIOHERICA	Imprunone	Complementary feed recommended for dogs and cats to optimize the immune response for increased efficiency of the innate and the adaptive immune systems	Autimmune & Inflammation	✓	✓	✓	✓	✓
	BIOHERICA	Heparinoids	Heparinoids are mucopolysaccharides obtained from different tissues of animal origin through a gentle extraction process that guarantees integrity of their active elements.	Action in epistaxis as antihemostatic and anticoagulative agent, promoting elimination of minor superficial bleeding, allowing for rapid hemostasis reabsorption. Hydrating effect due to contents in chondroitin and dermatan sulfate	✓	✓	✓	✓	✓
	BIOHERICA	SODIUM HEPARIN	Sodium heparin has multiple biological activities, but is noteworthy for its anticoagulant properties. The heparin molecule forms a complex with antithrombin III (ATIII) and inhibits different coagulation factors: XIIIa, XIa, Xa, IIa, thrombin, and kallikrein	Anticoagulant	✓	✓	✓	✓	✓
	BIOHERICA	LITHIUM HEPARIN	Heparin is a commonly used anticoagulant, especially in clinical biochemistry and chemical measurement tests. It is the recommended anticoagulant for chemical measurement in blood or plasma tests because of its minimal chelating properties	Anticoagulant	✓	✓	✓	✓	✓
	BIOHERICA	AMMONIUM HEPARIN	Heparin is a commonly used anticoagulant, especially in clinical biochemistry and chemical measurement tests. It is the recommended anticoagulant for chemical measurement in blood or plasma tests because of its minimal chelating properties	Anticoagulant	✓	✓	✓	✓	✓
	BIOHERICA	DERMATAN SULFATE	Dermatan sulfate is a natural glycosaminoglycan found mainly in the skin, but also in blood vessels, heart's valves, tendons, lungs, and intestinal mucosa	Potential therapeutic applications: Anticoagulant and antithrombotic activity. A well documented interaction of dermatan is binding of dermatan sulfate to heparin cofactor II, which acts by inhibiting the procoagulant activity of thrombin	✓	✓	✓	✓	✓
	BIOHERICA	Walsorb	For joint and muscle pain relief	Sport Nutrition anti-inflammatory	✓	✓	✓	✓	✓
	BIOHERICA	Tendocative	Tendon health and recovery	Using Tendocative	✓	✓	✓	✓	✓
	BIOHERICA	Attractive	Protects the joints and improves mobility	Attractive	✓	✓	✓	✓	✓
	BIOPOLIS	Tailor-made probiotic blends	Different targets and indications	Food Industry / Food Supplements / Pharma Industry / Infant Nutrition	✓	✓	✓	✓	✓
	BIOPOLIS	Bifidobacterium longum ES1	Gluten sensitivity and inflammation	Food Industry / Food Supplements / Pharma Industry / Infant Nutrition	✓	✓	✓	✓	✓
	BIOPOLIS	Lactobacillus paracasei CNCM 1-4034	Immune Boosters	Food Industry / Food Supplements / Pharma Industry / Infant Nutrition	✓	✓	✓	✓	✓
	BIOPOLIS	Bifidobacterium breve CNCM 1-4035	Immune Boosters	Food Industry / Food Supplements / Pharma Industry / Infant Nutrition	✓	✓	✓	✓	✓
	BIOPOLIS	Lactobacillus rhamnosus CNCM 1-4036	Immune Boosters	Food Industry / Food Supplements / Pharma Industry / Infant Nutrition	✓	✓	✓	✓	✓
	BIOPOLIS	Bifidobacterium longum CEGT 7210	Rotavirus infection	Food Industry / Food Supplements / Pharma Industry / Infant Nutrition	✓	✓	✓	✓	✓
	BIOPOLIS	Bifidobacterium lactis BPL1	Healthy Weight and Metabolism	Food Industry / Food Supplements / Pharma Industry / Infant Nutrition	✓	✓	✓	✓	✓
	BIOPOLIS	Conventional probiotics: Bifidobacterium, Lactobacillus and Streptococcus	Digestive Health	Food Industry / Food Supplements / Pharma Industry / Infant Nutrition	✓	✓	✓	✓	✓
	BIOPOLIS	Probiotics	Gastrointestinal health improvement; confirmation of benefit in final product	Dairy industry / Bakeries / Mineral water and soft drink bottlers	✓	✓	✓	✓	✓
	BIOSEARCH LIFE	URSOLIA	Extract of the aerial part of <i>Salsola officinalis</i> L. with a high ursolic acid content (min. 15%) that helps to fight inflammation and congestion combined with Cranberry in situations of urinary tract infections (UTI)	Women health / Dietary supplements	✓	✓	✓	✓	✓
	BIOSEARCH LIFE	CARONOSTOL	D-xylo-inositol (DCI) from Carob for Polycystic Ovary Syndrome (PCOS)	Women Health / Dietary supplements	✓	✓	✓	✓	✓
	BIOSEARCH LIFE	PF1	Carob Extract high in nonhydrolyzable condensed tannins obtained by aqueous extraction system without using ethanol or organic solvents for cholesterol management	Medical Device IIR / Dietary supplements	✓	✓	✓	✓	✓
	BIOSEARCH LIFE	EUPOLY-3	LC-Omega 3 oil (powder, emulsion and oil) for functional foods and nutraceuticals, with excellent organoleptic properties	Olive / seed / Dairy industry / Beverage industry / Bakeries / Meat / Fish industry / dietary supplements / Infant nutrition	✓	✓	✓	✓	✓
	BIOSEARCH LIFE	HEREDITUM	Probiotics isolated from human breast milk for the prevention of lactational mastitis	Women Health / Dietary supplements	✓	✓	✓	✓	✓
	BIOSEARCH LIFE	HEREDITUM	Probiotics isolated from human breast milk for the prevention of infant infection	Infant nutrition / Dietary supplements	✓	✓	✓	✓	✓
	BIOSEARCH LIFE	EXXENTIA	Hops Dry Extract ( <i>Humulus lupulus</i> L.) standardized in 8-Prenylnaringenin, 8-PN to alleviate menopausal discomforts	Women Health / Dietary supplements	✓	✓	✓	✓	✓
	BIOSEARCH LIFE	APPLE DRY EXTRACT	Apple dry extract rich in ursolic acid with anti-inflammatory and antioxidant character. Also indicated for the maintenance of muscle mass	Food applications (Dairy industry, Beverage industry, Bakeries, etc.) / Dietary supplements	✓	✓	✓	✓	✓
	BIOSEARCH LIFE	HYDROLIV PLUSTM	Hydroxyrosol (715%) extract from olive fruits with a strong antioxidant character	Olive / seed oils industry / Dairy industry / Beverage industry / Bakeries / Meat / Fish industry / dietary supplements	✓	✓	✓	✓	✓
	ESTEVE	Triptomax	Food supplement recommended during periods of stress	Nutrition	✓	✓	✓	✓	✓
	ESTEVE	Cortapip	Product formulated to reduce common cold duration and to prevent new infections	Cough and cold	✓	✓	✓	✓	✓
	FARMASIERA MANUFACTURING	NUTROBAL PLUS	It helps to prevent diarrhea caused by antibiotic	Intestinal flora	✓	✓	✓	✓	✓
	FECYT	Probiotic	New probiotics with antibacterial properties to prevent caries	Oral care products / Food supplement	✓	✓	✓	✓	✓
	Fundacion MEDINA	Natural preservatives	Extracts with antimicrobial activity	Food Manufacture	✓	✓	✓	✓	✓
	Leitat	Natural derived ingredients	Extracts from Mediterranean Flora with certain functionalities which could be used in food (antimicrobial, antioxidant, etc.)	Food additives, food additives, supplements	✓	✓	✓	✓	✓
	Lipopharma Therapeutics	Cardionase (Cardionase)	No cholesterol, and it lowers both blood pressure and the levels of triglycerides	Sauce manufacturers	✓	✓	✓	✓	✓
	NATAC	Herbal extracts	Innovative herbal ingredients		✓	✓	✓	✓	✓
	NATAC	Functional lipids	Olive oil concentrates in polyphenols as hydroxyrosol, triterpenoids, squalene, etc.	Nutraceuticals / Olive / Seed oils industry / Dairy industry / Beverage industry / Bakeries / Meat / Fish industry / dietary supplements	✓	✓	✓	✓	✓
	NATAC	Olive extracts	Oleonic acid (99% purity), oleic acid, hydroxyrosol (20%), ALLDOLIVE full plant profile olive extract	Nutraceuticals / Olive / Seed oils industry / Dairy industry / Beverage industry / Bakeries / Meat / Fish industry / dietary supplements	✓	✓	✓	✓	✓
	NATAC	Omega-3	Highly concentrated omega-3 products with low content of phytanic acid		✓	✓	✓	✓	✓
	NATAC	POMOLIVE	Metabolic syndrome a specific combination of the complete fraction of olive pentacyclic triterpenes and a highly concentrated apple polyphenols extract		✓	✓	✓	✓	✓
	NATAC	ENDOLIVE	Cardiovascular protection. Studies performed by Natac indicate that ENDOLIVE: Lowers serum glucose, increases HDL, controls systolic blood pressure, improves cardiac function	Food supplements, functional foods	✓	✓	✓	✓	✓
	NEOLIBIO	OMEGA-3 DHA OIL	DHA plays an important role in cognitive functions at any stage of life. Contributes to eye development and visual health and function	Infant Formulae Food Supplements	✓	✓	✓	✓	✓
	SEPROX BIOTECH	Hydroxyrosol, hydroxyrosol acetate and DOPAC	Enhanced oil stability and protection of low-density lipoprotein (LDL) from oxidative damage	Oils and fats / Dairy industry / Mineral water and soft drink bottlers	✓	✓	✓	✓	✓
	SEPROX BIOTECH	Hydroxyrosol, hydroxyrosol acetate and DOPAC	Protection against colon cancer and reduction of contamination by pathogens in human food products	Meat industry / Fish processing and preservation / Fruit and vegetable processing and preservation / Dairy industry	✓	✓	✓	✓	✓
	SEPROX BIOTECH	Hydroxyrosol, hydroxyrosol acetate and DOPAC	Reduction of the oxidising effects of free iron and heme in meat	Meat industry	✓	✓	✓	✓	✓
	SISTEMAS GENOMICOS	AgriGen	Sistemas Gen	Plant genetics	✓	✓	✓	✓	✓

## FOOD SAFETY AND SUBSTANCE DETECTION

LOGO	COMPANY	NAME OR DESCRIPTION	INDICATION / PROPERTY	APPLICATIONS	R&D	VALIDATION	REGISTER	PATENT	AVAILABLE IN THE MARKET
	BIOGENOM	PATOGENOM	Metabarcoding based detection (NGS & NGS) of whole pathogens or microorganism from a food sample or related (surfaces, packings, etc)	microbiological food control, processing facilities, raw materials	✓	✓	✓	✓	✓
	BIOGENOM	GENOMID	Genetic accreditation of food quality and geographical origin GENOMID	Accreditation of cultivation (control of all species in a sample), Analytical Accreditation of geographical origin, species, trace, trace, analytical genetic product and GMOs	✓	✓	✓	✓	✓
	Biomedel	GlutenTex Pro Surface	Test for gluten detection in surfaces	Food producers of all types and handlers	✓	✓	✓	✓	✓
	Biomedel	GlutenTex Sticks Plus	Immunochromatographic strips for detecting gluten in foods	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	GlutenTex ELISA Competitive A1	ELISA assay for quantification of gluten in food samples suitable for hydrolyzed samples	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	GlutenTex ELISA Sandwich	ELISA assay for quantification of gluten in food samples	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	GlutenTex Pro Surface Fast	Test for gluten detection in surfaces	Test producers of all types and handlers	✓	✓	✓	✓	✓
	Biomedel	GlutenTex ELISA Competitive	ELISA assay for quantification of gluten in food samples suitable for hydrolyzed samples	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	GlutenTex Pro	Test for gluten detection	Food producers of all types and handlers	✓	✓	✓	✓	✓
	Biomedel	GlutenTex Home	Rapid test for gluten detection	Collac	✓	✓	✓	✓	✓
	Biomedel	GlutenTex READER	Immunochromatographic strip reader	Any food industry that performs gluten tests using GlutenTex Sticks	✓	✓	✓	✓	✓
	Biomedel	Gluten analysis services	Gluten analysis services. ISO 17025 certification	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	Bread portfolio of food analyses (allergens, physical-chemical, microbiological, etc.)	Bread portfolio of food analyses (allergens, physical-chemical, microbiological, etc.)	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	Aler Tex Sticks Almond	Test for allergen detection	All types of food producers	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Almond	Test for allergen detection	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	Aler Tex Sticks Cashew	Test for allergen detection (Cashew)	All types of food producers	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Fish	Test for allergen detection	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	Aler Tex Sticks Soy	Test for allergen detection	All types of food producers	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Pistachio	Test for allergen detection	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Ovalbumin para vino	Test for allergen detection	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	Aler Tex Sticks Crustacean	Test for allergen detection	All types of food producers	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Egg	Test for allergen detection	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Lysozyme para vino	Test for allergen detection	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Lupino	Test for allergen detection	All types of food producers	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Lysozyme	Test for allergen detection	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Sesame	Test for allergen detection	All types of food producers	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Ovalbumin	Test for allergen detection	Food producers of all types	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Mustard	Test for allergen detection	All types of food producers	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Casain	Test for allergen detection	Food producer of all types	✓	✓	✓	✓	✓
	Biomedel	Oleotest	Colorimetric assay that allows to determine the total polar compounds in frying fats in 2 minutes.	Food producers	✓	✓	✓	✓	✓
	Biomedel	Aler Tex ELISA Cashew	Test for allergen detection	Food producers of all types	✓				

# Spanish Green Biotech Pipeline\*

## BIOPRODUCTS, BIOPROCESSES ANT OTHER TECHNOLOGIES

LOGO	COMPANY	NAME OR DESCRIPTION	INDICATION / PROPERTY	APLICATIONS	R&D	VALIDATION	REGISTER	PATENT	AVAILABLE IN THE MARKET
	AC-Gen Reading Life	WineSeq	Quality control	Wine industry					
	BIOGENETICS	CANID	Individual and genealogical identification of animals, specially validated in its application to cattle and pigs.	Bio - identification of animals by improving the services offered by current systems. Registration of identities that allow affiliation of samples with forensic applications and sanitary control					
	GENESPECTOR	GENESPECTOR	Portable device for the ubiquitous DNA fragment analysis for molecular safety and traceability of foods using the GENOMID technology.	Certification and analytical verification of GENOMID identity and / or qualities in situ.					
	Biomedal	R&D and innovation (RDI) services: RDI consulting and project execution	Technological solutions for the food industry	Food producers of all types					
	BIOPOLIS	Design, screening and optimization of directed enzymatic catalysis	Conversion of desired molecules by the use of enzymes. Either with commercially available enzymes or using enzymes designed from scratch.	Pharmaceutical, chemical and ingredient producers.					
	BIOPOLIS	Assessment of waste and byproducts	Purification of "zero waste" and value-added use of byproducts in the same or other industries, reducing costs and tapping new revenue sources	Food producers of all types. Chemical industries.					
	BIOPOLIS	Process enhancement and optimisation	Solution to production problems, with possibility of scaling solutions up to industrial scale to test efficiency	Food producers of all types					
	BIOPOLIS	Bioremediation of soil and water environments	Screening, design, isolation and validation of microbial strains or consortiums with degrading activities against certain type of molecules.	Chemical industries.					
	BIOPOLIS	Biofertilizers design and production	Screening, design, isolation and validation of microbial strains or consortiums with enhanced properties for soil such as better assimilation of nutrients or biocide activities.	Agrofood industry.					
	BIOPOLIS	Fermentation starters	Ensure that fermentation takes place at the proper time and with the selected microorganisms, ensuring uniformity between product batches, control over fermentation time and final product quality	Meat industry / Dairy industry / Bakeries / Alcoholic beverages					
	BIOPOLIS	Functional evaluation and validation (in vitro and in vivo) of functional ingredients and functional foods	Functionality confirmation in the final product (oxidative stress, obesity, neurodegeneration, diabetes, anti-microbial infection, etc.)	Ingredient producers. Pharmaceutical companies.					
	Bioraw	Fermentation and downstream processes	600 L, 2,000 L and 12,000 L fermenters	APIs (Active Pharmaceutical Ingredients)					
	Fundacion MEDINA	MEDScreen	High Throughput Screening of Biotechnological Products	Food producers of all types					
	Fundacion MEDINA	MEDMicro	Microbial Fermentation & Scale Up Platform	Food producers of all types					
	Fundacion MEDINA	MEDChemistry	LCMS & NMR Analytical Platform	Food producers of all types					
	Fundacion MEDINA	MEDDiscovery	Bioactive Molecule Discovery Platform	Food producers of all types					
	Fundacion Parque Cientifico Tecnológico Aula Dei	Molecular Biology laboratory	Genetic fingerprinting of individuals, varieties and populations. Identification of varieties and phylogenetic relationships. Analysis of genetic diversity in natural populations and breeding. Improving plant genetics. Identification of genes of agronomic	Applicable to all industries. Crop improvement					
	GP-PHARM		Micro nanospheres for release injectable products of peptide						
	Leitat	Antibody generation	From immunization up to generation, modification/engineering and production/purification	Applicable to all industries. Useful as detection tools, for diagnosis and monitoring and for therapeutic applications					
	Leitat	Natural functional protein hydrolysates enriched in active peptides	Production of peptide-based ingredients from by-products to be used as feed additives and other applications with antioxidant, antimicrobial, anti-inflammatory activity	Functional food and feed ingredients					
	Leitat	Collagen and keratin hydrolysis	Production of protein hydrolysates	Fertilizers, cosmetics, feed, etc.					
	Leitat	Agricultural waste valorization	Production of ingredients from agricultural wastes	Ingredients for food and feed					
	Leitat	Chemical-enzymatic extraction of polyphenols	Extraction and recovery of polyphenols as antioxidants	Natural food and feed preservative					
	Leitat	Microbiological treatment of pollutants including isolation of new consortia	Biotechnological treatment of pollutants using new adapted consortia	Treatment of soils and wastewaters					
	Leitat	Tailored peptide for specific needs obtained from several sources such as algae, insects, beetles and food by-products.	Production of peptide-based ingredients from by-products	Functional food and feed ingredients					
	Leitat	Collagen and Keratin extraction and recovery	Recovery of ingredients from by-products	Functional food and feed ingredients					
	Leitat	Plasma for sanitising	Sanitising surfaces for food	Oils and fats / Dairy industry / Sugar, cocoa and chocolate / Fish processing and preservation / Fruit and vegetable processing and preservation					
	Leitat	Complex intestinal and skin models of microbiota-cells	Depending on the microbiota and model: nutrient absorption, drug response, obesity, metabolic diseases, etc	Determine the effect of ingredients/food/feed on microbiota and on human/animal health and well-being					
	Leitat	Enzymatic interesterification of fats and oils, and fat crystallisation	Improve the nutritional profile of food products	Oils and fats / Dairy industry / Sugar, cocoa and chocolate					
	Leitat	Reuse of byproducts and coproducts: production of functional products	Production of products for the cosmetic / food / pharmaceutical industry and for animal feed	Oils and fats / Dairy industry / Sugar, cocoa and chocolate / Fish processing and preservation / Fruit and vegetable processing and preservation					
	Leitat	Microencapsulation	Protection of active ingredients / Controlled release / Avoidance of organoleptic problems	Dairy industry / Sugar, cocoa and chocolate / Fruit and vegetable processing and preservation / Bakeries					
	Leitat	Biotins	Study of biotin formation and validation of technologies for biotin removal	Oils and fats / Dairy industry / Sugar, cocoa and chocolate / Fish processing and preservation / Fruit and vegetable processing and preservation					
	PLANT RESPONSE BIOTECH	Elicitor to stimulate plants' innate immunity	Crop treatment to prevent diseases and increase yields	Fruit and vegetable processing and preservation					
	PLANT RESPONSE BIOTECH	Validation of biostimulants	Improving the quality and shelf life of fruit and vegetables	Fruit and vegetable processing and preservation					
	PLANT RESPONSE BIOTECH	Metabolites for plant abiotic stress protection	Crop treatment to prevent abiotic stress and increase yields	Food producers of all types					

## FEED

LOGO	COMPANY	NAME OR DESCRIPTION	INDICATION / PROPERTY	R&D	VALIDATION	REGISTER	PATENT	AVAILABLE IN THE MARKET
	ALBAENERGY	AlgaePiscis	Fish & livestock. High level of polyunsaturated fatty acid, ω3 type (EPA, DHA and ARA), proteins, vitamins, and carotenoids					
	Biohérica	Snacks-Coodogs Caprice & Treat	Snacks for dogs with porcine fresh meat					
	Biohérica	Palbio SORD	Aids in increasing feed intake and contributes to the development of the intestinal mucosa thanks to its characteristics and high digestibility					
	Biohérica	Nucleoforce Piglets / Horses / Fish / Cows / Poultry / Dogs / Salmonids / Shrimps	Nucleoforce content for insufficient novo or endogenous synthesis (necessary for development of tissues with a high cell replication rate like reproductive, immune and intestinal tissues)					
	BIOPOLIS	Probiotics	Addition to a product's formulation of living microorganisms that are validated as beneficial for health; confirmation of benefit in final product					
	BIOPOLIS	Enzymes	Design and production of enzymes to improve availability of substrates in feed. Ability to design and manufacture xylanases, β-glucanases, pectinases, amylases and proteases, among other if required					
	BIOSEARCH LIFE	HYDROLIV PLUS						
	BIOSEARCH LIFE	EXXENTIA	Plant extracts with different functionalities for healthcare (cardiovascular, digestive, immune system, stress, antioxidants, etc.)					
	BIOSEARCH LIFE	HEREDITUM	Probiotics strains for improvement of weight gain in piglets					
	BIOSEARCH LIFE	EXXENTIA	Artichoke extract for liver protection					
	NATAC	HP-40	Hepatic protection					
	NATAC	Natacalin	Swine and ruminants					
	NATAC	Cividox	Antioxidant, vitamin E enhancer. Meat quality					
	NATAC	MAC-60	Aquaculture, concentrated olive oil, economical benefits due to intestinal protection					
	SEPROX BIOTECH	Hydroxytyrosol, hydroxytyrosol acetate and DOPAC	Reduction of contamination by pathogens in animal food products					

## VETERINARY

LOGO	COMPANY	PRODUCT	INDICATION	THERAPEUTIC AREAS	R&D	REGULATORY PRECLINICAL	PHASE II	PHASE III	READY TO MARKET	STUDIES LOCATION
	AGROCODE BIO SCIENCE	Arthrostem	Treatment of joint diseases with autologous cell therapy service (using the animal's own cells) based on mesenchymal stem cells for house pets and horses	Musculoskeletal Disorders						Spain
	Biohérica	Denoxyol	Dietary supplement with the specific nutritional purpose of enhancing liver function in case of liver failure in dogs or cats	Digestive System						
	Biohérica	DenaMarin	Nutritional supplement designed to provide specific nourishment to help liver function in cases of acute liver insufficiency in dogs and cats	Digestive System						
	Biohérica	Pro-Enteric Triplex	Symptomatic treatment of diarrhoea	Digestive System						
	Biohérica	Cosquin Cats	Chondroprotective drug being their main ingredients: Chondroitin sulphate and Glucosamine	Musculoskeletal Disorders						
	Biohérica	Calmarofel	Feline idiopathic cystitis	Autoimmune & Inflammation						Spain
	Biohérica	Condrolvet Taste	Chondroprotective specially recommended for dogs and cats with joint injuries and degenerative processes of the articular cartilage	Musculoskeletal Disorders						
	Biohérica	Cosquin Taste RA	Chondroprotective drug being their main ingredients: Chondroitin sulphate and Glucosamine	Musculoskeletal Disorders						
	Biohérica	Dysgen Test	DNA chip and a blood sample to evaluate the genetic predisposition of dogs of the Labrador Retriever breed to develop hip dysplasia	Musculoskeletal Disorders						Spain
	BIOPOLIS	Probiotics and functional ingredients	Pet-food	Autoimmune & Inflammation / Digestive System / Infectious Diseases						Worldwide
	INGENASA	INgezin Besnoitia	ELISA assay for specific antibodies detection to Besnoitia besnoitii in bovine sera samples	Infectious Diseases						Spain
	INGENASA	INgezin TB Procina	ELISA assay for detection of specific antibodies to Mycobacterium bovis complex, in porcine sera samples	Infectious Diseases						Spain
	INGENASA	PPV-VLP	Porcine Parvovirus	Infectious Diseases						Europe
	INGENASA	IBDV-VLP	Gumboro Disease	Infectious Diseases						Europe
	INGENASA	INgechip Allergies	Allergen specific IgE levels detection in canine sera samples, based on microarray technology	Autoimmune & Inflammation / Other: Allergy						Europe
	Aquilon CYL	AQ1401 Brucella BM	IntradermoDiagnosis of False Positives to current standard methods	Infectious Diseases / Other: Reproductive system						
	Laboratorios LETI	LETIFEND	Canine leishmaniasis vaccine	Parasitic Diseases						Europe
	Aquilon CYL	AQ1201	Swine Dysentery	Digestive System / Infectious Diseases						Spain
	Bionaturis	BNT015	Porcine Circovirus Type 2	Infectious Diseases						Spain, China
	Bionaturis	BNT004	Nematodes in livestock	Parasitic Diseases						Spain, Brazil
	Bionaturis	BNT011	Salmonid Rickettsial Septicaemia	Infectious Diseases						Latam
	Bionaturis	BNT005	Canine leishmaniasis	Parasitic Diseases						Spain
	Bionaturis	BNT006	Growth promoter and immune enhancer (Swine and poultry)	Autoimmune & Inflammation / Infectious Diseases / Parasitic Diseases						Mexico, Spain, UK, South Africa
	Bionaturis	BNT025 (MUPPET)	Skin infections in pets (canine pyoderma, atopic and allergic dermatitis-associated infections)	Infectious Diseases						Spain
	Bionaturis	BNT007	Gumboro disease (poultry)	Infectious Diseases						China
	Bionaturis	BNT010	Classical Swine Fever	Infectious Diseases						Spain, Taiwan, China
	MSD	INP (Activyl Plus)	Control of transmission of leishmaniasis by sand fly bites	Parasitic Diseases						Spain
	MSD	ISO (CBPI oral)	Treatment of flea and tick infestation in dogs	Parasitic Diseases						Spain
	MSD	HIP (CBPI topical)	Treatment of flea and tick infestation in dogs and cats	Parasitic Diseases						Spain
	MSD	MCR (Zuprevo)	Prevention of respiratory diseases in pigs	Respiratory and Pulmonary system						
	MSD	FPO (Flunixin Transdermal)	Adjunctive therapy in the treatment of bovine respiratory disease and mastitis in dairy cattle	Autoimmune & Inflammation / Respiratory and Pulmonary system						Spain
	Aquilon CYL	AQ1203	Antigenic composition as vaccine adjuvant for Respiratory diseases caused by bacteria from the Pasteurellaceae family	Infectious Diseases / Respiratory and Pulmonary system						Spain
	BIOVET	Antigen delivery for vaccines: Encapsulation of antigens with a polymer to increase the vaccination efficacy.	Vaccines	Infectious Diseases						
	DIDMUNE SL	MASTIPRO	Mastitis	Infectious Diseases						Spain
	DIDMUNE SL	BABENMUNE	Babesiosis	Infectious Diseases / Parasitic Diseases						SPAIN
	FECYT	FMD	Foot-and-mouth disease	Infectious Diseases						Europe/Latam
	Bionaturis	BNT016	Rabbit Hemorrhagic Fever	Infectious Diseases						China
	Bionaturis	BNT013	Fertility treatment (cattle)	Fertility						Spain
	Leitat	Antibody generation and immunostests	Useful for vaccine development and monitoring, as well as general diagnostic purposes	Autoimmune & Inflammation / Digestive System / Fertility / Infectious Diseases / Musculoskeletal Disorders / Parasitic Diseases / Respiratory and Pulmonary system						Spain

\*Based on data provided by ASEBIO associated companies. JUNE 2017

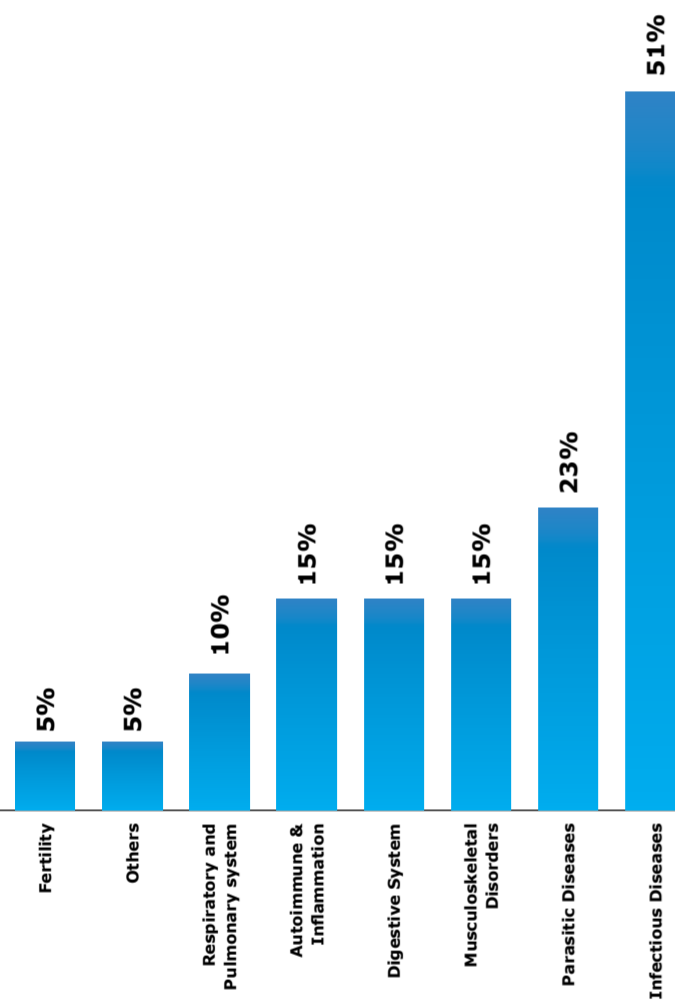
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An overview of agrofood and veterinary biotechnology projects currently developed by the Spanish biotech industry

### VETERINARY - ANIMAL HEALTH



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