

Latest patents available for licensing and collaborations

Ana Martínez Gil, Carmen Gill Ayuso-Gontan and Nuria E. Campillo Martin et al.

New use for an existing drug as antiviral agent against SARS-CoV-2 to prevent or/and treat COVID-19

CSIC has discovered a new use for an existing drug on the market as antiviral agent. Industrial partners from the pharmaceutical industry are being sought to collaborate through a patent licence agreement.

[More information](#)

Pedro García González and Roberto Vázquez González

Polypeptides with antibacterial activity

CSIC has developed several polypeptides with bactericidal activity from a phage lysin of *Pseudomonas aeruginosa*. These compounds are particularly active against Gram-negative bacteria, such as *P. aeruginosa*, *Acinetobacter baumannii* and *Moraxella catarrhalis*. The invention relates to these polypeptides for use in the treatment of diseases caused by bacteria, and preferably due to respiratory tract infections. Industrial partners from the pharmaceutical sector are being sought to collaborate through a patent licence agreement

[More information](#)

Carmen Gill Ayuso-Gontan, Ana Martínez Gil, Nuria E Campillo Martin, Rafael Delgado Vázquez, Fatima Lasala Sánchez, Covadonga Alonso Martí, Inmaculada Galindo Barreales and Miguel Ángel Cuesta Geijo.

New antiviral agents for the treatment and / or prevention of diseases caused by viruses, such as Ebola (EBOV) and African swine fever (ASF)

The CSIC, FIB Hospital 12 de Octubre and INIA have identified the use of a family of chemical compounds as antiviral agents, being useful for the treatment of viral diseases such as those caused by the Ebola virus (EBOV) and the African swine fever virus (ASF). Pharmaceutical companies are being sought to collaborate through a patent licence agreement.

[More information](#)

Pilar Sánchez Testillano, Ana Martínez Gil, Carmen Gill Ayuso-Gontan et al.

A New Molecular System for a Highly Efficiency of In Vitro Plant Propagation

CSIC has developed the use of mammal kinase inhibitors to promote in vitro induction of plant embryogenesis and plant regeneration. Industrial partners from companies for regeneration, propagation and selection of high quality/adapted plant material in agroforestry and industrial sectors are being sought to collaborate through a patent licence agreement.

[More information](#)

Eduardo Díaz Fernández and David Sanz Mata

Two in one: engineering recombinant biocatalysts for plastic recycling and towards bioplastic production

CSIC has developed recombinant genetic cassettes and bacterial host cells comprising them which are useful as biotechnological tools for the aerobic and anaerobic biodegradation of o-phthalate (PA) and its bioconversion into value-added biodegradable polymers. The present invention belongs to the fields of microbiology and biotechnology, in particular to

support industrially-relevant microbial platforms for bioremediation of environments contaminated with phthalates, for plastic recycling and for bioplastic biosynthesis.

[More information](#)

Juan Carro Aramburu and Ángel Tomás Martínez Ferrer.

Biocatalyst to transform fat into stabilizers, coatings, glues and polymers in a specific and environmentally friendly way

The CSIC has developed two mutated variants of an unspecific peroxygenase enzyme that improve the selectivity of the biocatalyst for two specific industrial applications. One is the epoxidation of unsaturated fatty acids for use as stabilizers, coatings, or crosslinking agents for adhesives and glues. The other is the hydroxylation of fatty acids, which can lead to easily polymerizable diacids for the production of nylon, polyesters, polyamides, or fragrances. Companies interested in licensing the patent for the development of epoxides, hydroxy compounds, or diacids derived from fatty acid through the use of improved variants of the unspecific enzyme are sought.

[More information](#)

Ana Martínez Gil, Daniel I. Fernández Pérez, Carmen Gill Ayuso-Gontan et al.

Benzothiazole Derivatives as CK-1 Inhibitors for the Treatment of Amyotrophic Lateral Sclerosis

CSIC has synthesized a family of benzothiazoles which acts as casein kinase 1 (CK-1) inhibitors. Therefore, these compounds are useful for the treatment of diseases related to circadian rhythm and neurodegenerative, inflammatory, autoimmune, neurological and psychiatric diseases where CK-1 is relevant. Furthermore, these compounds induce cell regeneration. Pharmaceutical companies interested in a patent licence are sought for.

[More information](#)

Alicia Prieto, María Molina Gutiérrez, Félix Antonio López Gómez, Irene García Díez, Lorena Alcaraz Romo and María Jesús Martínez Hernández

Biocatalysts for the food, pharmaceutical and cosmetic industry made from used batteries

The CSIC has developed a system that use the black mass of the used batteries to synthesize biocatalysts with a great capacity to synthesize products widely used in the food, pharmaceutical and cosmetic industry, such as aromas and flavorings. Companies interested in exploiting the technology under a patent license are sought.

[More information](#)

José María Sánchez-Puelles González-Carvajal, Luisa María Botella Cubells, Tania Aguado Sánchez et al.

New treatment for epidermolysis bullosa and fibrosis

CSIC, Carlos III University of Madrid and CIEMAT have repositioned drugs that stimulate endogline expression and modulate the TGF- β route for a new clinical use in the treatment of fibrosis, such as epidermolysis bullosa (EB). EB includes a heterogeneous group of rare hereditary diseases of the skin in which in its infantile incidence the patients are known as "butterfly children". It is a new therapy for a rare pathology, with potential in a wide spectrum of fibrosis, which would improve the possibilities of treatment of patients, improving their quality of life. Industrial partners from the pharmaceutical industry are being sought for its development in a wide variety of fibrotic pathologies through a patent licence agreement.

[More information](#)

Ana Martínez Gil, Carmen Gill Ayuso-Gontan, Josefa Zaldivar Díaz de Bonilla y Rocio Benítez Fernández

Control of neurodegenerative diseases with benzothiazole-benzamide derivatives

CSIC has developed a group of heterocyclic compounds derived from a privileged structural nucleus with the capacity to inhibit the LRRK2 enzyme. This inhibitory activity makes them useful in the treatment of neurodegenerative diseases affected by this enzyme, among which Parkinson's disease and Alzheimer's disease stand out. Pharmaceutical companies interested in the development and commercialization of these compounds under a patent license are sought.

[More information](#)

Ignacio Casal Álvarez and Ruben Álvaro Bartolome Conde

Peptide for cancer control linked to IL13R α 2 overexpression

CSIC has developed a peptide capable of inhibiting the signaling of IL-13 mediated by IL13R α 2. This peptide alone or within a nanoparticle or virus-like particles can be used in a pharmaceutical composition for the treatment of pathologies in which IL13R α 2 is overexpressed. This composition would be useful in the treatment and control of metastasis of colon cancer and other tumors (i.e glioblastoma), as well as in other pathologies such as asthma, atopic dermatitis or fibrosis. Industrial partners are being sought to develop and commercialized the products through a patent licence agreement.

[More information](#)

Ana Martínez Gil, Carmen Gill Ayuso-Gontan, Victor Sebastián Pérez and Julie C Herrera Díaz.

Piperidine derivatives for the control of Parkinson's and Alzheimer's

CSIC has synthesized a series of piperidine derivatives that are capable of inhibiting the activity of the enzyme phosphodiesterase-8 (PDE8). This inhibitory activity makes them useful for the treatment of neurodegenerative diseases in which this enzyme is overexpressed. The compounds developed are, therefore, a new therapeutic alternative for Alzheimer's disease, and Parkinson, among others. Industrial partners from pharmaceutical industry are being sought to develop and commercialized the compounds through a patent licence agreement

[More information](#)

Ana Martínez Gil, Daniel I Pérez, Ángeles Martin Requero, Elisa Rojas Prats and Loreto Martínez González.

Purine derivatives for the treatment of neurodegenerative diseases

CSIC has synthesized several substituted purine derivatives that are capable of inhibiting the activity of the CDC7 kinase. This inhibitory activity makes them useful for the treatment of neurological diseases. The compounds developed are, therefore, a new therapeutic alternative for Alzheimer's disease, amyotrophic lateral sclerosis or frontotemporal dementia. Industrial partners from pharmaceutical industry are being sought to develop and commercialized the compounds through a patent licence agreement.

[More information](#)

José Luis García López, Carmen Felpeto Santero and Beatriz Galán Sicilia.

Biotechnological production of 11 α hydroxylated steroids using recombinant bacteria

CSIC has developed a procedure for the biotechnological production of 11 α hydroxylated steroids by generating and subsequent use of recombinant bacteria. These recombinant bacteria allow to perform microbial biotransformation processes that result in 11 α -hydroxylated

steroid compounds from raw materials such as phytosterols and intermediate products efficiently and economically. These compounds have numerous applications in pharmacology. Companies are sought for implementing and commercializing the new technology under patent license agreement

[More information](#)

Ruth Pérez Fernández, Andrea Canal Martín et. al

Regulatory compounds of synaptic transmission for the treatment of neurological diseases

The CSIC and IRYCIS (Ramón y Cajal Institute for Health Research) have developed a group of compounds. These compounds have the ability to regulate the number of synapses that are formed between neurons, as well as the probability that neurotransmitters are released from these, because they have the capability of modulate the interactions that take place between the regulatory proteins NCS-1 and Ric8a that regulate these two independent processes. Due to these neuromodulatory properties, these compounds are useful for the treatment of neurological diseases as Alzheimer's disease, Huntington or Parkinson's diseases among others. Industrial partners from the ophthalmic or pharmaceutical industry are being sought to collaborate through a patent license agreement.

[More information](#)