Compounds for the treatment of optic neuritis

CSIC and the University of Athens have found that secoiridoids, such as oleacein and oleocanthal, are useful to prevent or treat neuropathies that conduct to optic nerve injury, such as optic neuritis.

A company dealing with pharmaceutical or nutraceutical compositions for ophtalmic applications is sought for licensing agreement.

An offer for Patent Licensing

New pharmacological application

Secoiridoids are monoterpenoids, derived from iridoids in plants, based on the 7,8-seco-cyclopenta[c]-pyranoid skeleton. Most of secoiridoids and iridoids have been isolated from plants and approximately 600 different structures are known. Almost all the secoiridoids are glycosides. This group of phytochemicals occur wide-spread in nature, and exhibit a wide range of biological and pharmacological activities, including antibacterial, anticancer, anticoagulant, antifungal, antioxidative, antiprotozoal and hepatoprotective activities.

The researchers have found that oleacein and oleocanthal, have protective effects on the integrity and function of the blood-brain barrier (BBB) as well as on the oxidative and immune-inflammatory events related to optic neuritis. Results were performed on a mouse model with intraperitoneal administration of the compounds obtained from an olive oil extract.

Oleocanthal

Main innovations and advantages

- This natural solution avoids serious side effects, in contrast with the common treatment with corticosteroids
- The compounds provide in addition anti-inflammatory properties, immune regulation, and neuroprotective effects
- Cheap and easy available from natural sources

Patent Status

Spanish Patent application filed

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