

Technology Offer

Dietary supplement to prevent the formation of advanced glycation end products in diabetic patients

Summary

Researchers from a Spanish university have developed and patented a dietary composition based on phytate to prevent the formation of advanced glycation end products (AGE), toxic substances present in diseases such as diabetes. Companies engaged in diabetic nutrition and supplementations interested in a license agreement are being sought.

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Reference TOES20151013003

Profile link <http://een.ec.europa.eu/tools/services/PRO/Profile/Detail/d3297622-d357-4b01-a52e-2e476e1bd0b4>

Details

Description

Advanced glycation end products (AGEs) are substances resulting from the chemical reaction –an attachment, between a sugar molecule (as glucose) and an amino acid, most of which are harmful to people, especially for diabetics because of their higher glucose levels. These substances can be a factor in the development or worsening of many degenerative diseases, such as diabetes, chronic renal failure or Alzheimer's disease. In diabetes, AGEs are the responsible for microvascular and macrovascular complications (nephropathy, neuropathy).

Phytate is a natural product presents in our diet (legumes and cereals) which is demonstrated to have an important inhibitory effect on AGEs formation. Interestingly, diabetic patients follow a diet low in rich-phytate foods and their physiological levels of phytate are extremely low. For these reasons, a supplementation of phytate would be very important in order to avoid or retard future complications in these patients

Spanish researchers specialized in the field of renal lithiasis and nutrition have developed a new composition based on phytate and vitamins to prevent the formation of AGEs, so that they can be used therapeutically in the treatment or prevention of diseases such as neuropathy, nephropathy, atherosclerosis, vascular calcification and neurodegenerative diseases.

Companies engaged in diabetic nutrition interested in a license agreement for developing a supplement are being sought.

Advantages and Innovations

One of the therapeutic approaches is preventing the formation of AGE through inhibitors. One of these inhibitors is the Metformin. As an alternative, the developed dietary composition is based

on natural products –phytate and vitamin B6, avoiding adverse effects to health and having a high inhibitory capacity for the formation of AGE.

Stage of Development

Available for demonstration

IPR Status

Patent(s) applied for but not yet granted

Comment Regarding IPR status

Patent application filed recently in Spain (priority) with the possibility to file an international application (PCT).

Profile Origin

Private (in-house) research

Keywords

Technology

08001002 Food Additives/Ingredients/Functional Food

Market

05005012 Nephrology

07003002 Health food

NACE

M.72.1.1 Research and experimental development on biotechnology

M.72.1.9 Other research and experimental development on natural sciences and engineering

Network Contact

Issuing Partner

FUNDACIO UNIVERSITAT EMPRESA DE LES ILLES BALEARS

Contact Person

Lorena Vela

Phone Number

0034971259667

Email

lorena.vela@fueib.org

Open for EOI : **Yes**

Dissemination

Send to Sector Group

Healthcare

Client

Type and Size of Organisation Behind the Profile

University

Year Established

0

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English

Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

Companies engaged in diabetic nutrition interested in a license agreement for developing a supplement are being sought.

Type and Size of Partner Sought

SME 11-50,SME <10,>500 MNE,251-500,SME 51-250,>500

Type of Partnership Considered

License agreement