

Abstract: 3.º Simpósio em Produção e Transformação de Alimentos

## Exploring bioactive compounds present in international patents targeting brain functions

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### Abstract

The interest in nervous system disorders is an evident fact with more than 60 000 articles published on PUBMED only in the year of 2016. Actually, in our daily life we are constantly exposed to different environmental factors known to be prejudicial to the health of our nervous system. In this context, a holistic view of food consumption is gaining increasing importance with the perspective of using functional components of specific foods to improve our health or diminish the risk of disease.

The aim of our work is to evaluate the use of nutritional food components of traditional Portuguese diet in international patents of dietary supplements or the so called functional foods described to improve brain functions.

The WIPO platform was used to collect data of these patents, and from the last 3 years we identified 35 patents using more than 150 different components. We selected the most frequent components and the indications described in the patents, and then examined the possible bioactive compounds for each component. The prevalent functional components described were walnuts, peanuts, wolfberries, mulberries, dates, jujube, creatine, carnitine, ginseng and soybean. Other components rich in omega-3, such as docosahexaenoic acid and superba oil, were also identified. These patents were described to target brain functions such as intelligence, memory, concentration and in some cases compounds are indicated to traumatic brain injury.

Regarding local sources, we found several nutritional components of traditional Portuguese diet that have similar compounds of those found in the international components described in patents. We believe this information will help in the valorisation of national products.

