

Protein Sequences for Therapeutic Applications in Management of Obesity, Cachexia and Nausea

Published date: March 27, 2019

Technology description

Problem

Growth differentiation factor-15 (GDF15) is a broadly expressed hormone, whose level often correlates with progression of many diseases. It has been shown in multiple species that the elevated level of GDF15 drives weight loss primarily by reducing total food intake. The increased level of GDF15 is also seen after a cancer therapy that often associates with nausea and emesis. It was only in 2017 when a receptor responsible for mediating the anorectic actions of GDF15 was identified. Hence, the hormone and its receptor are promising therapeutic targets for the treatment of disorders such as obesity, anorexia and nausea associated with chemotherapy. Long-term weight management is a huge current problem. Nausea from chemotherapy and morning sickness is difficult to manage and can be extremely debilitating and compromise individual quality of life. The inventors created non-naturally occurring peptides that can enhance or suppress the effects of the hormone GDF15. By targeting the hormone receptor, these compounds can be useful to treat obesity by enhancing the action of the hormone and cachexia as well as nausea associated with chemotherapy or morning sickness by suppressing its expression.

Application area

Use as drug to treat obesity or cachexia

Use as drugs to overcome nausea associated with chemotherapy and morning sickness

Advantages

New targets that will help the discovery of drug for treating obesity, cachexia or nausea

Can be designed to target the specific site only avoiding brain penetration

Potential to increase quality of life for people suffering from obesity, cachexia and nausea

Institution

[University of Pennsylvania](#)

Inventors

[Tito Borner](#)

[Robert Doyle](#)

[Bart De Jonghe](#)

[Ian Tinsley](#)

[Matthew Hayes](#)

Translational Neuroscience Program - 4442

联系我们



叶先生

电话 : 021-65679356

手机 : 13414935137

邮箱 : yeyingsheng@zf-ym.com