TECHNOLOGY OFFER

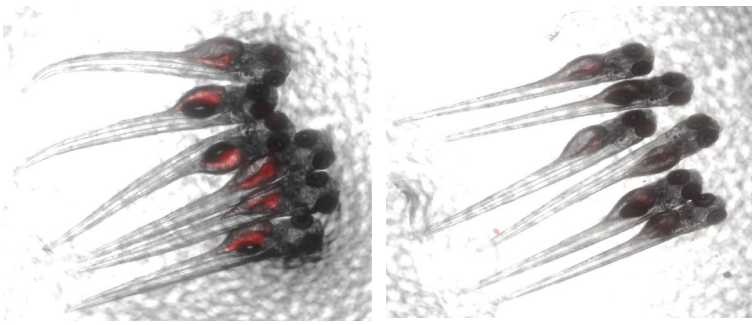
HYDROXYPHEOPHORBIDE COMPOUNDS AS LIPID-REDUCING AGENTS

Background

Obesity is an increasing epidemic, associated with several chronic diseases like diabetes, cardiovascular diseases, and cancer. There is an urgent need for effective lipid-reducing treatments.
Current therapeutic options present several limitations, such as severe side effects and challenges in long-term adherence. Some natural products are already being used in the clinic as anti-obesogenic compounds.

Technology

13^2-hydroxypheophorbide (hpa) compounds are promising candidates for treating obesity and related co-morbidities. These compounds are derived from chlorophyll, already known for its beneficial bioactivities.
Hpa has demonstrated novel and significant lipid-reducing activity, evaluated using the zebrafish Nile red fat metabolism assay and a 3D cell culture model of murine pre-adipocytes. The compounds can be used in therapy or treatment of obesity, overweight and related disorders. The compound can be obtained from natural resources, such as Spirulina, a GRAS cyanobacteria.



Neutral lipid content (●) in zebrafish. On the right the control (DMSO) and on the left with hpa.

Advantages

- Effective neutral lipid reduction activity;
- Natural product, can be obtained from GRAS organisms;
- Commercialization as isolated molecule or raw material;
- No cytotoxicity.

PATENT STATUS

International Patent Application via PCT WO2020178713
Priority date: 01.03.2019
Pending in Europe and US

DEVELOPMENT STAGE

TRL4 – Technology validated in lab
Further development for validation in large scale setups required.

APPLICATIONS

Nutraceuticals;
Food Supplements;
Pharmaceuticals.

COOPERATION

Licensing Agreement;
Product development and marketability;
Financial Agreement.

KEYWORDS

13^2-hydroxypheophorbide
Lipid reducing
Natural Product
Obesity
Overweight
Weight loss

DEVELOPED BY

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