Discovery Of A New Class Of Taste Receptor In Mammals

Tech ID: 32332 / UC Case 2021-874-0

BRIEF DESCRIPTION

BACKGROUND

Mammals are believed to have five basic taste receptors: sweet (T1R2 + T1R3), bitter (T2Rs), sour, salty, and umami (T1R1 + T1R3) that are identified by Class A and Class C G protein-coupled receptor (GPCRs). However, there is still opportunity for discovery in the way of mammalian taste receptors.

DESCRIPTION

Researchers at the University of California, Santa Barbara, have discovered a new class of taste receptor in mice and humans. These taste receptors are activated by variety of chemicals found in foods such as cocoa beans, citrus fruits, green tea, soybeans, artificial sweeteners, etc. One of the advantages of identifying mammalian taste receptors is that they can be expressed in vitro and used to conduct high throughput screens for new classes of modulators to reduce the bitterness of aversive chemicals in food and for artificial sweeteners and other chemicals in foods. This invention has a direct impact on testing and tuning flavors in food additives, orally administered drug or dietary supplements, oral care compositions, and more.

ADVANTAGES

- Enables activation and modulation of previously undiscovered taste receptors

APPLICATIONS

- Food flavoring
- Modulators to reduce adverse taste of orally-administered drugs
- Modulators to reduce adverse taste of dietary supplements
- Modulators to reduce adverse taste of oral care products

PATENT STATUS

Patent Pending

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Discovery Of A Highly Effective And Safe Insect Repellent

CONTACT

Donna M. Cyr
cyr@tia.ucsb.edu
tel: .

INVENTORS

- Chandel, Avinash
- Montell, Craig
- Zhan, Yinpeng

OTHER INFORMATION

KEYWORDS

taste receptor, flavor, food additives, taste buds, orally-administered drug, oral care product, dietary supplements, artificial sweeteners

CATEGORIZED AS

- **Biotechnology**
  - Food

RELATED CASES

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University of California, Santa Barbara
Office of Technology & Industry Alliances
342 Lagoon Road, ,Santa Barbara,CA 93106-2055 |
www.tia.ucsb.edu
Tel: 805-893-2073 | Fax: 805.893.5236 | padilla@tia.ucsb.edu