

# CHEMCOM

### Smart biotech for odor and taste management

#### Our Company

- ChemCom is the leading discovery company for products and services related to chemical communication
- ChemCom possesses an artificial, biological nose expressing an important part of the human repertoire of olfactory receptors (hORs)
- ChemCom has developed patented screening capabilities based on an exclusive worldwide license acquired from the Duke University (USA)
- ChemCom can deal with any mammal receptors including those ectopically expressed and spread all over mammal body



The ChemCom's 900 m<sup>2</sup> building, located on the Medical Campus of the ULB in Brussels.

ChemCom offers a unique combination of knowledge, experience and solutions focused on the needs of our business partners

#### ChemCom has developed a patented technology leading to key differentiations in:

- Fragrance & Flavor business
- Cosmetic and dermatologic applications
- Pharmaceutical industry
- Automotive industry
- Animals industry

- Water treatment
- Feed, food and beverage industries, etc, ...

### Our innovations are useful for all industries dealing with odors and tastes

20 YEARS OF EXPERIENCE 17 PASSIONATED AND ACCOUNTABLE SCIENTISTS WORLD'S MOST ADVANCED TECHNOLOGY MULTIPLE PARTNERSHIPS WITH INTERNATIONAL GROUPS

## How does it work ?

In our nose, the sense of smell is mediated by hORs that allow the perception of volatile odorant compounds. Also present in our skin and organs, olfactory receptors may play different roles in various physiological processes.



#### Olfaction

At ChemCom we create efficient modulators for these olfactory receptors: pleasant odors (agonists), malodor blockers (antagonists) and odor boosters (enhancers).

ChemCom's platform and products portfolios represent innovative solutions for :

- Malodor counteraction
- Odor enhancement
- Development of new smells and new fragrance materials
- Elaboration of cost effective formulations

#### Taste

Mammals can distinguish several basic tastes: Sweet, Umami, Bitter, Salty and Sour.

The mechanism is different than olfaction but ChemCom has already an operational bitter taste platform using a proprietary cell line which is free from any existing intellectual property.

On demand, ChemCom can implement any mammal of interest bitter taste plateform.

#### **Trigeminal sensations**

ChemCom masters the functional expression of Transient Receptor Potential channels (TRPs) responsible for the perception of hot, cold, pecking, etc...

Today, we keep developing this platform in order to have, along with olfaction and taste, an analytical tool for the whole range of sensory perceptions occuring in the bucco-nasal area.

#### **Pharmaceutical**

- Several odorant and taste receptors are also expressed throughout the human body where they can act as bio-sensor and play a physiological role
- Some physiological roles for human being include cardiovascular diseases (hypertension), renal diseases, angiogenesis, sperm motility, protective airway reflexes, cancer, gastrointestinal diseases, or more recently pneumonia
- Thanks to its proprietary technological platform, ChemCom can deal with these hORs and possesses a large associated database (agonists, antagonists, allosteric modulators)

#### **Cosmetics**

ChemCom's technology can give rise to new applications for cosmetic creams such as antiaging, spray, after sun, tanning and lightening effects, etc...

Our technology can also lead to dermatologic applications targeting inflammation, itch, burnt, etc...

#### **Our working process**





### **CHEMCOM**

# An innovative approach for market differentiation through

sensory receptors

## Together we create innovative solutions to delight consumers around the world !



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