

The background of the slide features a soft-focus, artistic photograph of sand dunes. The dunes are in the foreground, with their crests and troughs creating a rhythmic pattern. Above the dunes, the air is filled with numerous small, white, dust-like particles that appear to be floating or drifting, creating a dreamy and ethereal atmosphere. The overall color palette is muted, consisting of various shades of blue, grey, and white.

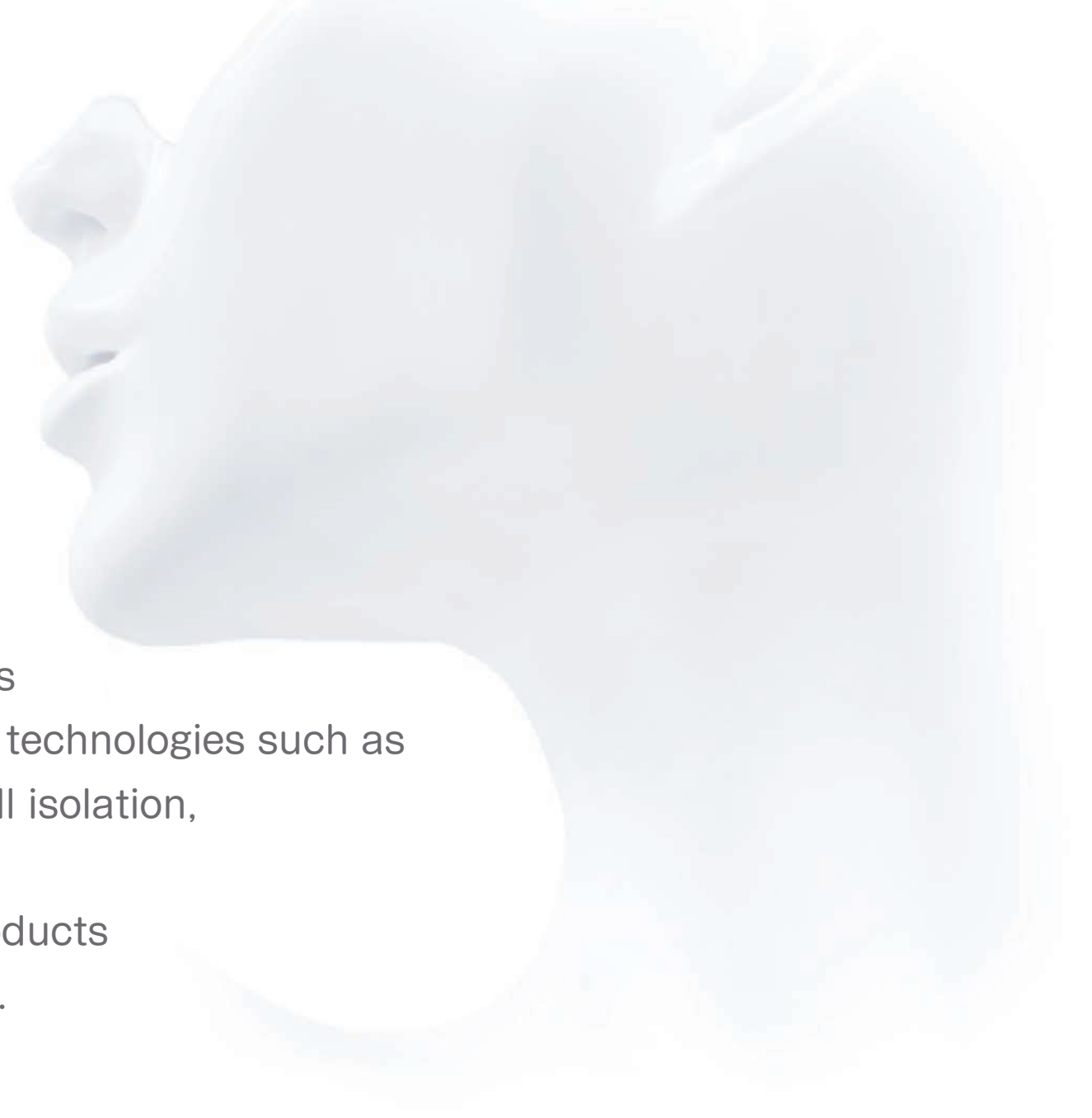
The World's First

Company to Quantify Smell

Concept

Komi-hakko utilizes the technologies we have developed in our research technologies such as odor analysis, fermentation, one-cell isolation, and ingredient analysis.

We support the development of products that are useful for consumers' lives.



World's First Odor Quantification Technology

Quantifying how humans perceive odor components

The human olfactory receptor sensor

reproduces the mechanism of the human sense of smell.

Its greatest feature is that it can sense only the

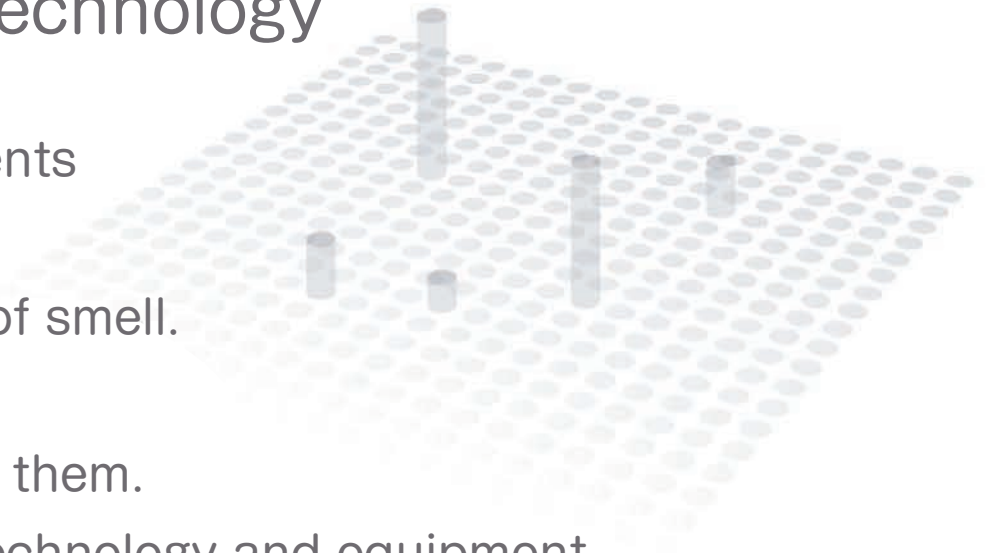
odors that humans perceive as humans perceive them.

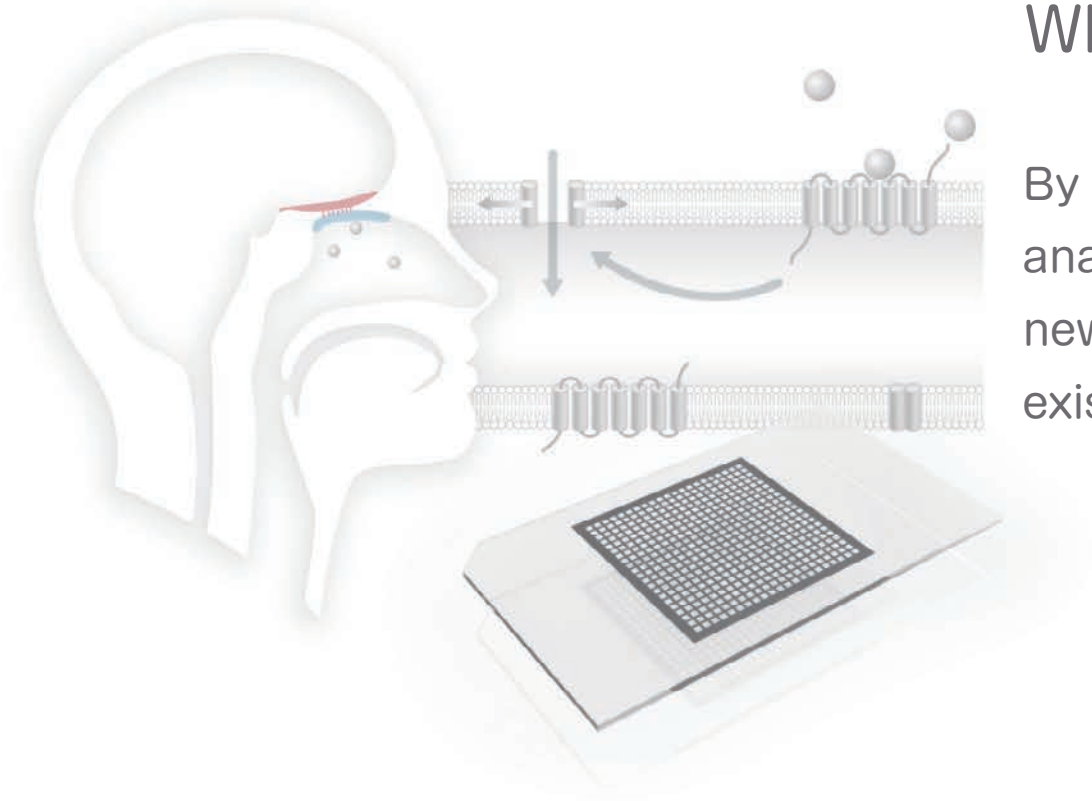
A sensor using living cells requires cell culture technology and equipment.

However, in order to increase the portability of cell-based sensors,

we have developed a new technology cell-free handheld sensors

that reflect the response of human olfaction through AI.





What we can do by quantifying smells

By quantifying smells with flavor fermentation analysis technology, it is possible to develop new products and technologies that have never existed before using smells.

Business

What we can do by quantifying smells

By quantifying smells with Komi-Hakko analysis technology,
the following new products and technologies related to smells can be developed



New methods for odor control

We support product development using an unprecedented odor control method that targets the receptors that respond to malodors.

- *Antagonist deodorant that covers the receptors.

- *Modulator deodorant that modulates the receptor response

Reconstruction of odor by odor database

Create a database of fragrance odors and reconstruct the desired odor with a different combination of fragrances

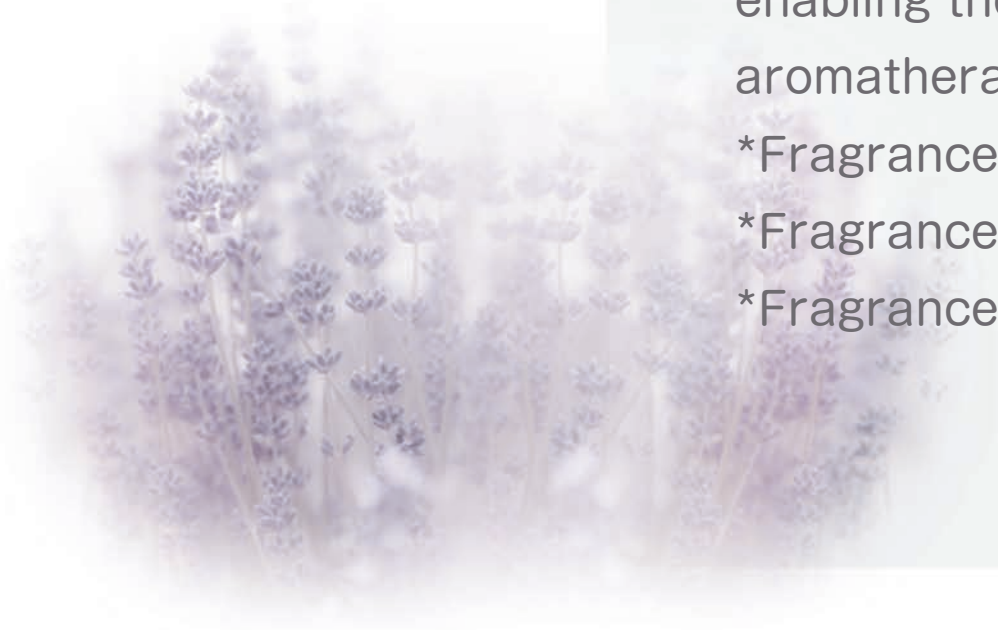
- *Adding the sense of smell to VR with smell displays
- *TVs that emit smells
- *Real flavors replacing rare natural and other flavors
- *Learning flavors that reconstitute toxic smells with non-toxic flavors
- *AI flavoring that anticipates trends



Control of physiological activity by odor

We integrate data on the components and physiological effects of fragrances used in aromatherapy with data on the response of olfactory receptors, enabling the development of fragrances for aromatherapy based on medical evidence.

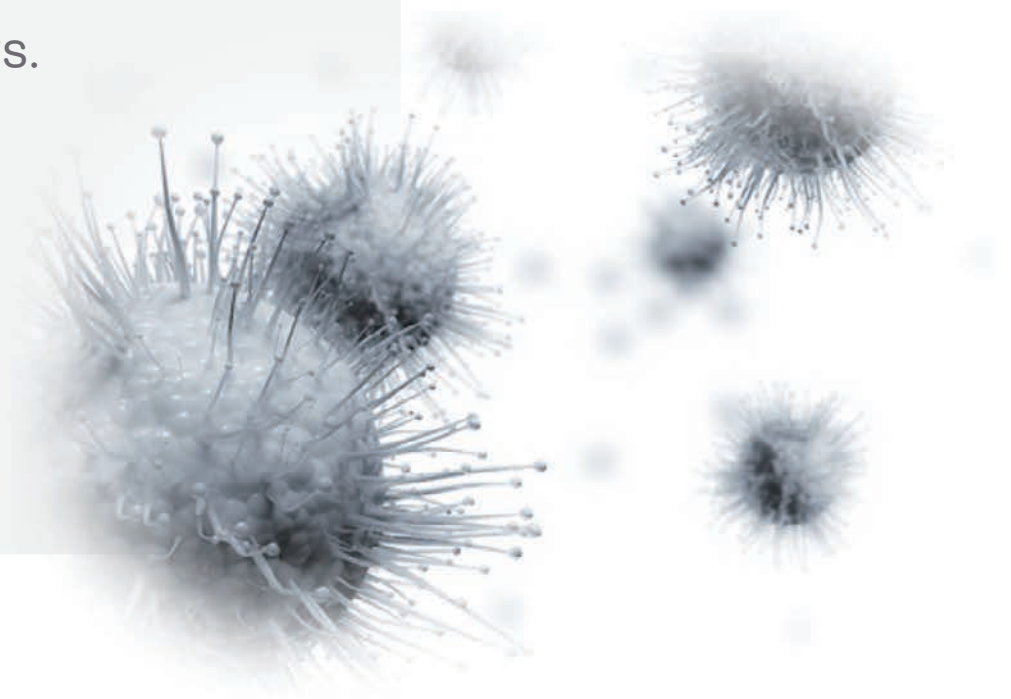
- *Fragrances that calm the mind
- *Fragrances that enhance concentration
- *Fragrances that promote restful sleep



Check for signs of various diseases

Identify receptors that respond to odors (urine, feces, body odor) that commonly appear in patients with each disease, and support the development of disease specific checkers.

- *Infectious disease checker
- *Cancer checker
- *Parkinson's disease checker
- *Health Care Toilet





Standardization of Smell

By quantifying odors, we can accurately communicate, compare, and evaluate them

Application to non-human olfactory receptors

The technology to quantify human olfactory receptors can also be applied to non-human receptors. This will support the development of effective and safe new insect repellents and attractants.

- *Insect repellents and attractants for mosquitoes to prevent the transmission of diseases

- *Prevention of vermin through smells that animals do not like



Other developments

New technology and product development based on odor quantification has the potential to expand further.

- *Quality control by quantifying smells

- *Development of a mechanical sensor that can express human senses

Company Profile

Komi-Hakko Corporation

HQ

550-0002 TAT Edobori Bldg 10F, Edobori 1-24-12, Nishi, Osaka, Osaka, Japan

Tel: +81-6-6443-3630 / FAX: +81-6-6443-3632

R&D

565-0871 Technoalliance C Bldg 3F, Yamadaoka 2-8. Suita, Osaka, Japan

Tel: +81-6-6876-3385 / FAX: +81-6-6876-3386

Representative Director CEO Kenji KUBO
