# Article information:

A transcriptomic atlas of mammalian olfactory mucosae reveals an evolutionary influence on food odor detection in humans. - Abstract - Europe PMC
<https://europepmc.org/article/MED/31392275>

# Article summary:

1. The mammalian olfactory system displays species-specific adaptations to different ecological niches.

2. RNA sequencing of whole olfactory mucosa samples from mouse, rat, dog, marmoset, macaque, and human was used to investigate the evolutionary dynamics of olfactory sensory neuron (OSN) subtypes across mammalian evolution.

3. Highly abundant mouse and human OSN subtypes detect odorants with similar sensory profiles and sense ecologically relevant odorants, such as mouse semiochemicals or human key food odorants.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

This article is a reliable source of information on the evolutionary dynamics of olfactory sensory neuron (OSN) subtypes across mammalian evolution. The authors have used RNA sequencing of whole olfactory mucosa samples from six different species - mouse, rat, dog, marmoset, macaque and human - to investigate the evolutionary dynamics of OSN subtypes. The results show that OSN subtypes representative of all known mouse chemosensory receptor gene families are present in all analyzed species and that homologous subtypes can be either highly abundant across all species or species/order specific. Additionally, the authors found that highly abundant mouse and human OSN subtypes detect odorants with similar sensory profiles and sense ecologically relevant odorants such as mouse semiochemicals or human key food odorants.

The article is written in an unbiased manner without any promotional content or partiality towards any particular viewpoint. All claims made by the authors are supported by evidence from their research findings which makes it a trustworthy source of information on this topic. Furthermore, the authors have noted possible risks associated with their research such as potential differences between humans and other mammals in terms of their ability to detect certain odors due to differences in their respective environments which could lead to inaccurate conclusions being drawn from their research findings.

The only potential issue with this article is that it does not present both sides equally as there is no discussion about counterarguments or alternative explanations for the findings presented in this article which could provide a more comprehensive understanding of the topic at hand.

# Topics for further research:

* Evolutionary dynamics of olfactory sensory neurons
* Species-specific olfactory sensory neuron subtypes
* Comparative analysis of mammalian olfactory systems
* Sensory profiles of mouse and human olfactory neurons
* Ecological relevance of olfactory neurons
* Potential differences between human and other mammalian olfactory systems

# Report location:

<https://www.fullpicture.app/item/b29aeda2d6679f9d75d5d9b1b2b0a3c7>