

Bitter APIs?

Detect the risk earlier.

66% of clinical and experimental Active Pharmaceutical Ingredients (APIs) are projected to be bitter.

For $\approx$ **25%** of these APIs, the intensity is high enough to impact patient compliance.

AXXSENSE BITTER TASTE RECEPTOR PLATFORM



INTEGRATE PALATABILITY EARLY

Rely on **receptor-level screening** early in development



MAP RECEPTOR ACTIVATION

Identify which **TAS2Rs** your compound activates



SCREEN BITTER BLOCKERS AT SCALE

Screen large **compound libraries** (natural or synthetic)



EVALUATE OFF-TASTE BEYOND BITTERNESS

Integrate **trigeminal assays** for additional off-taste evaluation



Functional expression and characterization of bitter receptors across species

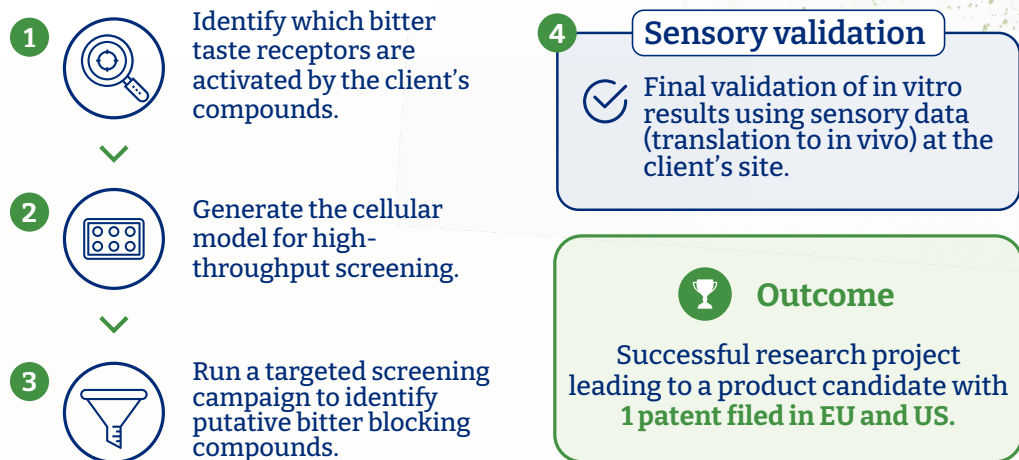
- **Human:** 26 TAS2Rs
- **Rat:** 36 TAS2Rs
- **Cat:** 13 TAS2Rs
- **Dog:** 16 TAS2Rs
- **Cattle:** 18 TAS2Rs



Extra-oral TAS2R expression: known therapeutic applications

- Respiratory, asthma
- Skin, dermatology, and wound healing
- Obesity and metabolism
- Neurodegeneration and oncology

Representative case study



Go beyond bitterness. Evaluate trigeminal sensation.

Trigeminal sensation receptor platform

TRPM8



Cooling

TRPA1



Tingling

TRPV1



Pungency

● **Identification of samples** that activate or modulate TRP channels

● **Applications:** flavor modifiers, novel cooling, spicy and tingling compounds



info@axxam.com
axxam.com
axxsense.com

AXXSense
axxam