## TASTE TRANSDUCTION TASTE BUD CELL Type I glial like cell ATP \_**O**■ **►**Depolarization K04824... Na<sup>t</sup>O Salty **\O**ADP K04270 Type II receptor cell Enhancement of ATP secretion cAMP K<sup>+</sup>channel ►OK + Sweeteners 🔿 Sugars 🔿 D-amino acids 🗢 K04625 Sweet K19729... ER -ONa<sup>+</sup> K04626 Calcium signaling pathway Depolarization cAMP**O** -ONa<sup>+</sup> PLCβ2 **►O** IP3 AMP 💇 ATP K04624 Sensory afferent fiber GMPO IMPO Umami K19729... L-glutamate O Ach Salicin 🔘 Neurotransmitter Quinine O K08474 Bitter Inhibition of ATP secretion release Saccharin O K04131 K04153 Type III presynaptic cell Weak acid 🖰 **►**OK+ HClO Citric acid O Malic acid O K04989 Sour Depolarization ⊕ -ONa⁺ Proton **-⊙** Ca²+ Na<sup>+</sup>∙⊘ H<sub>t</sub>O **►** Depolarization $Ca^{2+}$ O **©**GABA− OB-HT-Sensory afferent fiber Neurotransmitter release 04742 12/15/15 (c) Kanehisa Laboratories