
A Ca^{2+} -activated Cl^- channel promotes the termination of the olfactory response in insects

Qian Cao^{*1}, Christelle Monsempès¹, Thomas Chertemps¹, and Philippe Lucas¹

¹Institut d'écologie et des sciences de l'environnement de Paris (iEES - Paris) – Institut de Recherche pour le Développement, Sorbonne Université, Université Paris-Est Créteil Val-de-Marne - Paris 12, Centre National de la Recherche Scientifique, Institut National de Recherche pour l'Agriculture, l'Alimentation et l'Environnement – France

Résumé

Olfactory transduction relies on the coordinated actions of multiple molecular and cellular components. Numerous studies have demonstrated that the initiation of olfactory transduction involves the activation of odorant receptors (ORs). However, the molecular mechanisms underlying the termination of the olfactory response remain poorly understood. In our study, through electrophysiological and behavioral analyses, we identified a Ca^{2+} -activated Cl^- channel that plays a crucial role in the termination of the response to the pheromone cVA in *Drosophila melanogaster*.

*Intervenant