

GENETICS

FAT RECEPTOR LEADING TO OBESITY?

19.06.2009

I have [recently argued](#) that much of the "obesity epidemic (which even expands now due to the economic crisis) is being due to processed food that fools our sensory system. A new paper (doi:10.1089/omi.2008.0031) now gives me some more support

Taste perception plays a key role in determining individual food preferences and dietary habits. Individual differences in bitter, sweet, umami, sour, or salty taste perception may influence dietary habits, affecting nutritional status and nutrition-related chronic disease risk. In addition to these traditional taste modalities there is growing evidence that "fat taste" may represent a sixth modality. Several taste receptors have been identified within taste cell membranes on the surface of the tongue, and they include the T2R family of bitter taste receptors, the T1R receptors associated with sweet and umami taste perception, the ion channels PKD1L3 and PKD2L1 linked to sour taste, and the integral membrane protein CD36, which is a putative "fat taste" receptor. Additionally, epithelial sodium channels and a vanilloid receptor, TRPV1, may account for salty taste perception.

Why not testing fat receptor [CD36 variants with interaction of daily hamburger count on later obesity?](#)