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CH-19 Sweet, Nonpungent Cultivar of Red Pepper, Increased Body Temperature in Mice with Vanilloid Receptors Stimulation by Capsiate

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Summary We investigated the effect of CH-19 Sweet, a nonpungent cultivar of red pepper, and capsiate, a nonpungent capsaicin analog found in CH-19 Sweet on body temperature in mice. The body temperature was recorded from conscious and unrestrained mice by use of a telemetry system. The body temperature in the mice administered CH-19 Sweet was higher than in the mice administered California-Wandar, which contains no capsiate or capsaicin. The body temperature in the mice administered capsiate was higher than in the mice administered the vehicle. Furthermore, we injected capsazepine, a specific antagonist of vanilloid receptors, into the peritoneal cavity and orally administered capsiate via a stomach tube to mice. The body temperature in the mice pretreated with capsazepine was lower than in the mice injected with the vehicle. This result suggested that capsazepine suppressed the rise in body temperature induced by capsiate administration. In conclusion, CH-19 Sweet increased body temperature, and this effect may be induced by the vanilloid receptors' stimulation of capsiate.