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- **Summaries of newsworthy papers:**

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[A chronic high-fat diet creates a need to overeat](#)

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[Genetic basis for resilience](#)

DOI: 10.1038/NPP.2010.251

In homes where parents have substance abuse, mental health, or criminal problems, children with a common variant of a gene critical to reward systems in the brain seem to have better relationships with their parents than children without it. The research, published online this week in the journal *Neuropsychopharmacology*, could provide the genetic explanation for “resilience” in children in problematic households, showing evidence that opioids—natural chemicals in the brain—play a role in moderating social interactions in humans.

The mu-opioid receptor gene (OPRM1) receptor, which regulates endogenous opioids in the brain, has previously been associated with social behaviors in mice and rhesus macaques. William Copeland and colleagues assessed the OPRM1 receptor and parental interactions in 226 children between the ages of nine and 17 years old. Children from problematic households who had the OPRM1 gene variant reported fewer arguments and more enjoyable interactions with their parents than did children without this variant. However, no such association was found in children who came from stable homes.

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[A chronic high-fat diet creates a need to overeat](#)

DOI: 10.1038/NPP.2011.4

Excessive consumption of good-tasting food by obese individuals may reflect an effort to mitigate deficits in the brain’s reward centers, suggests a study published online this week in *Neuropsychopharmacology*. The findings suggest that blocking or reversing chemical alteration in certain genes associated with pleasure may be a useful approach to treating obesity.

Mu-opioid receptors (MORs) in the brain play an essential role in our ability to experience pleasure and reward, and are known to regulate the enjoyment received from consuming good-tasting food. Teresa Reyes and colleagues fed mice a consistently high-fat diet from weaning in order to induce obesity and found that it led to genetic modifications that decreased MOR expression in neural reward centers. The obese mice were also less sensitive to otherwise pleasurable experiences than lean control mice, suggesting they would have to consume more to experience the same effect.

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