

Appendix #4

Halifax, Nova Scotia, Canada

Synonyms

Authentic Text

Cats finicky for

**Researchers find
dysfunctional gene that
prevents sweet tooth**

By Paul Elias
The Associated Press

1. San Francisco- Cats are notoriously **a. finicky** eaters, as millions of pet owners can attest.

2. Now, there's a scientific theory explaining, at least in part, why cats have such **a. snobby** **f. eating habits:** genetics.

3. Researchers at the Monell Chemical Senses Center in Philadelphia and their collaborators said Sunday they found a **b. dysfunctional** **c. feline** gene that probably prevents **c. cats** from tasting sweets, a sensation nearly every other mammal on the planet experiences to varying degrees.

4. Researchers took saliva and blood samples from six cats including a tiger and a cheetah and found each had a **b. useless** gene that other mammals use to create a "sweet receptor" on their tongues. The gene in question does not **d. produce** one of the two vital proteins needed to **d. form** receptors.

5. "Because cats can't taste sweets, they're cranky," joked Joseph Brand, Monell's associate director and an author of the paper published Sunday in the Public Library of Science's journal Genetics.

6. Brand said the "pseudogene" is probably a big reason why they are **e. carnivores** that get by on a high-protein "Atkin's-like" diet.

7. "Its sense of taste has driven it to become a **e. meat-eater**," Brand said. "Losing their sweet receptor has probably changed their **f. dietary habits.**"

8. Brand said the paper is a culmination of a **j. lingering** question that **j. nagged** at him since he visited the Philadelphia Zoo with a colleague 25 years ago to watch the **f. feeding habits** of big cats.

9. All mammals have receptor cells on their tongues that send taste signals to the brain to process. The receptor cells are clustered together as taste buds. Each human taste bud is comprised of 50-100

receptor cells representing the five major taste sensations: salty, sour, sweet, bitter and umami, the taste of the food additive MSG and fermented soy products, among other foods.

10. Most mammals' sweet receptors are created by two proteins, one of which cats are missing.

11. The study was paid for, in part, by the research arm of the **g. pet food** giant Mars Inc, which is looking to make **i. better-tasting** **g. cat food.** The company has the rights of first refusal to commercialize the discovery published Sunday, Brand said.

12. Brand said the discovery could help veterinarians treat **h. ill** cats.

13. "Everyone knows that cats are finicky," said Brand, who owns two cats. "And one big issue is how to make food **i. palatable** enough for a **h. sick** cat to eat."

Tuesday, July 26, 2005
The Chronicle Herald