

[Epigenetic Abnormalities in Animal Clones Downplayed in Report on Food Safety from FDA](#)

By Trevor | January 15, 2008

The *Washington Post* is reporting this week on a 968-page report from the U.S. Food and Drug Administration (FDA) on the safety of food from cloned animals that are now widely available.

A long-awaited final report from the Food and Drug Administration concludes that foods from healthy cloned animals and their offspring are as safe as those from ordinary animals, effectively removing the last U.S. regulatory barrier to the marketing of meat and milk from cloned cattle, pigs and goats.

The article from Washington Post staff writer Rick Weiss highlights one of the anomalies that FDA scientists acknowledge in cloned animals but have chosen to discount: their epigenetic abnormalities. Indeed, researchers are only beginning to unravel the role that epigenetics plays in the long-term health and viability of cloned organisms. Yet, the FDA doesn't see this as a problem:

Finally, there was the overarching problem of deciding which measures would best predict whether the food was safe. Most puzzling was whether to take into account the subtle alterations in gene activity, called epigenetic changes, that are common in clones as a result of having just one parent.

In the end, facing the reality that epigenetics have never been a factor in assessing the wholesomeness of food, agency scientists decided to use the same simple but effective standard used by farmers since the dawn of agriculture: If a farm animal appears in all respects to be healthy, then presume that food from that animal is safe to eat.

While this seems to be a “no nonsense” approach to take in considering the potential impact of epigenetic changes in considerations of food safety, in some ways it **wholly discounts the concerns that researchers have about epigenetic alterations in cloned animals.**

In the report, the FDA promises a number of key areas that it will continue to survey going forward as cloning technologies and additional research becomes available, including new insight into the “biology of epigenetic mechanisms governing gene expression.”