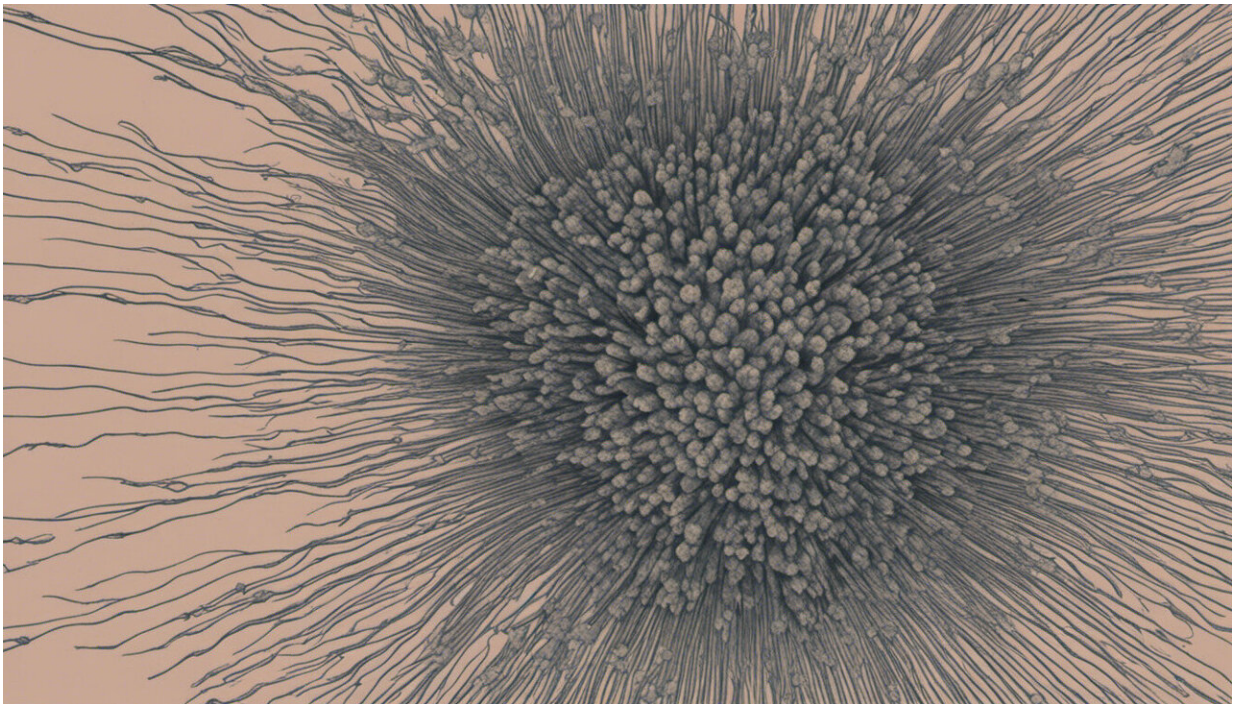


Eyes of cattle may become new windows to detect mad cow disease

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Credit: AI-generated image ([disclaimer](#))

The eyes may or may not be windows to the soul, as the old adage goes, but scientists are reporting evidence that a peek into the eyes of cattle may become the basis for a long-sought test to detect infection with the agent that causes Mad Cow Disease. That test could help prevent the disease from spreading in the food supply. A study on using the tell-tale

glow given off by eyes infected with the Mad Cow agent appears in ACS' journal *Analytical Chemistry*.

Jacob Petrich and colleagues note that the human form of [Mad Cow Disease](#) is linked to eating beef from animals infected with abnormal proteins called prions implicated in a range of brain diseases. Scientists are trying to develop tests to detect infected cattle before they enter the [food supply](#). Past studies suggest that chemical changes in an animal's retina, the light sensitive [nerve tissue](#) in the back of the eye, may provide a basis for detecting prion diseases.

The scientists showed that retinas of sheep infected with scrapie, a disease similar to Mad Cow Disease, emit a characteristic glow when examined with a beam of light from a special instrument. They suggest that eye tests based on the finding could become important in the future for fast, inexpensive diagnosis of prion diseases and other neurological diseases.

More information: "Fluorescence Spectroscopy of the Retina for Diagnosis of Transmissible Spongiform Encephalopathies", *Analytical Chemistry*.

Provided by American Chemical Society

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