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Scientists find new treatment for scrapie

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German scientists have discovered a method of treatment that appreciably slows the progress of the fatal brain disease scrapie in mice.

Researchers from the universities of Munich and Bonn, together with colleagues at the Max Planck Institute in Martinsried, used an effect discovered by U.S. researchers Craig Mello and Andrew Fire, for which they were awarded this year's Nobel Prize for Medicine.

Scrapie is a variant of the cattle disease bovine spongiform encephalopathy, or mad cow disease, and the human equivalent Creutzfeldt-Jakob disease.

Scrapie, Creutzfeldt-Jakob and BSE are among the most unusual diseases known to medical research because the pathogens are apparently neither viruses nor bacteria, being simply protein molecules known as protein prions.

What is even more peculiar: the same prion proteins occur in healthy animals, the only difference being they have an unusual shape. When there is contact with their "diseased twins" they change their shape, also becoming "diseased.

The new, complex treatment, however, will require years of study before it can be applied to human medicine, the researchers said.

They detail their findings in the December issue of the Journal of Clinical Investigation.