

# Further doubt cast on virus link to chronic fatigue

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Researchers investigating UK samples have found no association between the controversial xenotropic murine leukaemia virus-related virus (XMRV) and chronic fatigue syndrome (CFS). Their study, published in BioMed Central's open access journal *Retrovirology*, calls into question a potential link described late last year by an American research team.

Kate Bishop from the MRC National Institute for Medical Research worked with a team of researchers to test blood and [serum](#) samples from 170 CFS patients and 395 healthy controls, using quantitative PCR and a virus neutralization assay. She said, "No association between XMRV infection and CFS was observed in the samples tested, either by PCR or serological methodologies. Our findings therefore appear inconsistent with the previous report that isolated XMRV from the [blood cells](#) of CFS patients. We are confident that, although we were unable to replicate the detection, our PCR assay is more sensitive than the earlier method and possessed the necessary sensitivity to detect XMRV had it been present".

Bishop and her colleagues point out that CFS likely encompasses a range of diseases, and it is still possible that some of them might be associated with XMRV infection. They say, "There has been much discussion and controversy amongst CFS researchers and patients alike, which highlights the need for additional investigations in this area. Following our findings, it would seem a prudent next step for subsequent studies to compare samples and protocols between different laboratories around

the world".

The findings of this *Retrovirology* study are supported by results from a recently published work from Imperial College London that also found no proof that XMRV infection is associated with CFS.

**More information:** Absence of xenotropic murine leukaemia virus-related virus in UK patients with chronic fatigue syndrome, Harriet C T Groom, Virginie C Boucherit, Kerry Makinson, Edward Randal, Sarah Baptista, Suzanne Hagan, John W Gow, Frank M Mattes, Judith Breuer, Jonathan R Kerr, Jonathan P Stoye and Kate N Bishop, *Retrovirology* 2010, 7:10, [doi:10.1186/1742-4690-7-10](https://doi.org/10.1186/1742-4690-7-10)

The original research linking XMRV to CFS:

Detection of an Infectious Retrovirus, XMRV, in Blood Cells of Patients with Chronic Fatigue Syndrome, Vincent C. Lombardi, Francis W. Ruscetti, Jaydip Das Gupta, Max A. Pfof, Kathryn S. Hagen, Daniel L. Peterson, Sandra K. Ruscetti, Rachel K. Bagni, Cari Petrow-Sadowski, Bert Gold, Michael Dean, Robert H. Silverman, Judy A [DOI: 10.1126/science.1179052](https://doi.org/10.1126/science.1179052)er 2009: Vol. 326. no. 5952, pp. 585 - 589  
DOI: 10.1126/science.1179052

The recently published work from Imperial College London:

Failure to De[doi:10.1371/journal.pone.0008519](https://doi.org/10.1371/journal.pone.0008519)n Chronic Fatigue Syndrome, Erlwein O, Kaye S, McClure MO, Weber J, Wills G, et al. *PLoS ONE* 2010 5(1): e8519. doi:10.1371/journal.pone.0008519

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