

One year later, the CFS/CFIDS/ME community is puzzled, uncertain, and impatient with the lack of progress in resolving the inconsistencies reported in subsequent studies of the xenotropic murine leukemia virus-related virus (XMRV) — more specifically, in how this retrovirus pertains to CFS/CFIDS/ME. What's going on?

The retrovirus was originally found in humans in a prostate cancer study several years ago. The original study by Lombardi et al. in the journal *Science* in October 2009 found the XMRV virus in a significant percentage of CFS patients. The 'Lo/Alter' paper published in the *Proceedings of the National Academy of Sciences (PNAS)* in August 2010 demonstrated a "strong association" between CFS/CFIDS/ME and murine leukemia virus-related viruses (MLVs), but did not specifically find the XMRV virus. Dr. Judy Mikovits, a key researcher/author of the original Lombardi study, has stated that the XMRV virus falls within the MLV family of viruses.

However, a number of other studies both in the U.S. and Europe failed to find any XMRV in CFS subject samples.

One anticipated study, "Xenotropic Murine Leukemia Virus-Related Virus Prevalence in Patients with Chronic Fatigue Syndrome or Chronic Immunomodulatory Conditions," was conducted at six Boston-area academic hospitals by Henrich, et al., and released in the *Journal of Infectious Diseases*, Nov. 15, 2010, pp. 1478-81. The study group was quite large and diverse. It included but was not limited to: 32 individuals with CFS/CFIDS/ME; 43 with HIV infection; 97 with rheumatoid arthritis; 26 individuals who had undergone either stem-cell or solid organ transplants. The remaining 95 represented a general cohort of patients who have been receiving medical care at these facilities. No samples from the entire study group of 293 participants were found to be positive for XMRV.

Clearly, this sort of outcome raises a lot of concerns and more questions regarding how there could be such profound discrepancies in study results. The focus, once again, will go to the testing protocols used (i.e., XMRV or MLV testing is accomplished via polymerase chain reaction [PCR] and/or nested PCR, which in itself is a highly detailed, precise process). Other methods of testing such as detection of the actual virus and detection of antibodies to the virus were used in the original Lombardi study, but not in most of the subsequent studies. There is also the issue of how the results are interpreted. Furthermore, there is always the question of which diagnostic criteria are used to select CFS/CFIDS/ME patients for the past and future studies.

A few months ago, Dr. Judy Mikovits, one of the original researchers to link XMRV to CFS/CFIDS/ME, issued a [YouTube video commentary](#) regarding the 'Lo/Alter' paper. She explained how negative studies might be relying on a much too specific reference standard (i.e., a synthetic clone) and thus, might be missing the presence of positive results for a family of human gammaretroviruses that are MLV-related. Detection methods, patient selection, and other factors need to be further evaluated, clarified and standardized. Repeat studies must be pursued promptly and persistently.

A very timely review and commentary on the most recent XMRV publications is provided by Dr. Suzanne D. Vernon, the Scientific Director of the CFIDS Association of America, in an article titled, [Hide and Seek](#) .

We also suggest you periodically check the CFIDS Association of America's section on [XMRV/MLV research](#) which is updated frequently.