In the months following the October 8, 2009 publication of a seminal article in Science magazine linking the novel retrovirus XMRV to CFIDS, several "follow-up" studies have been conducted in Europe in an attempt to either confirm or find evidence against these initial findings. The original study, published by researchers at the Whittemore Peterson Institute in Reno, NV in conjunction with the Cleveland Clinic and the National Cancer Institute, found a strong correlation between CFIDS and the presence of XMRV DNA such that 67% of CFIDS patients' DNA contained XMRV while only 3.7% of healthy controls had XMRV in their DNA.

In harsh contrast, three subsequent European studies (two taking place in the UK and one in the Netherlands) have found virtually no evidence whatsoever of the XMRV in CFIDS patients. The first UK study published in PloS magazine on January 6, 2010, did not detect XMRV in any of the blood samples taken from 186 CFIDS patients. Likewise, in the second UK study published in Retrovirology on January 15, 2010, blood assays did not indicate any evidence of XMRV DNA in 142 CFIDS patients studied. The Dutch study, published in the British Medical Journal on February 10, 2010, tested a smaller number of CFIDS subjects, but again, all of the 32 CFIDS blood samples came up negative for XMRV.

Researchers at the WPI responded promptly to the notion that these new studies may cast doubt on their pivotal findings: "Simply stated the only validated reliable methods for detecting XMRV in CFS patients, to date, are the methods described in Science. Failure to use these methods and validated reagents has resulted in the failure to detect XMRV. A failure to detect XMRV is not the same as absence of this virus in patients with CFS." - WPI.

The WPI's response to the European studies' failure to detect XMRV in CFIDS patients was just that; essentially, that the European researchers had merely demonstrated their own inability to detect XMRV rather than demonstrating results that would have any bearing on the presence or lack thereof of XMRV in the general CFIDS population. The WPI researchers did not consider the European studies to be true replication studies as they did not employ the same methodology as that used by the WPI. For more details as to how the methodology of the UK studies differed from that of the WPI study, see the entries for January 6th, 2010 and February 18th, 2010 regarding XMRV on the WPI's webpage, *In The News* .

In addition to possible discrepancies in testing methods, population differences have also been highlighted as a possible confounding factor across these four studies. The inclusion criteria for CFIDS subjects in these studies were by no means identical. CFIDS subjects in the WPI study which had to meet both the Fukuda Criteria and the Canadian Criteria, the latter being a

significantly more detailed and exclusive definition of CFIDS than most because it includes specific categories for immune, autonomic and neuroendocrine symptoms. The Dutch study, on the other hand, used the Oxford Criteria for CFIDS which is based primarily on psychological symptoms rather than physiological ones. Moreover, the patients in the WPI study were all considered to be severely physically disabled which wasn't necessarily the case in all of the European studies. For instance, the subjects in the first UK study were considered to be disabled, but only in psychosocial terms or in terms of subjective levels of "fatigue," not in the sense of overall physical impairment. Dr. Suzanne Vernon, Scientific Director of the CFIDS Association, has also pointed out that the CFIDS patients in the WPI study may have been much more ill and for a longer period of time than those in the second UK study. An additional variance between the CFIDS patients in the WPI study and those in the "follow-up" studies is that the subjects in the WPI study all came from geographic areas where CFIDS "outbreaks" had reportedly occurred. Therefore these subjects may not be representative of all CFIDS patients and may have contributed to the vast differences in results between the WPI study and the European studies.

In conclusion, the editorial board for the Massachusetts CFIDS/ME and FM Association concurs with the position taken by Dr. Vernon and believes it is crucial to obtain the clinical attributes of the patients used in WPI study. Replication studies demand that the test subjects meet the same definitions and that the same protocols are followed exactly as in the original study. So far, none of the negative studies can be considered valid replication studies. Until the study criteria is made known and is applied on a random population of CFIDS patients, meeting the same definitions as used by WPI, no conclusions can be reached.

For more views and news about XMRV developments, please check out the following websites:

Dr. David Bell - highlights on XMRV lecture in Toronto

Phoenix Rising Forums - follow Cort Johnson's posts and blogs on XMRV