Notice of Retraction: “Multiple Sclerosis and Epstein-Barr Virus” (JAMA. 2003;289:1533-1536)

To the Editor: We are writing to request the retraction of our article in the March 26, 2003, issue of JAMA1 due to the discovery of a data error. The article was based on a nested case-control study in which we examined the relation between antibody titers against Epstein-Barr virus (EBV) and risk of developing multiple sclerosis (MS). To protect confidentiality, only the investigators at the Department of Defense Serum Repository (DoDSR) had access to the link between serum aliquots provided for serological analyses and case-control status or other covariates. Laboratory results were therefore sent to the DoDSR, where they were linked with the covariates of interest, and sent back to the other study investigators as an electronic file stripped of unique identifiers. Although the personnel linking the data at the DoDSR are highly trained and experienced in handling the huge database comprising millions of records, we discovered that in this instance the matching between laboratory results and remaining data were done incorrectly, apparently because of incorrect sorting of one of the files.

We have now repeated our analyses on the correctly matched data. With one exception, there were no errors in the case/control assignment of the samples. Several dates of blood collection, however, were erroneously assigned, obscuring important temporal variations in antibody titers among the cases. Overall, analyses of the correct data still support the strong and highly significant association between anti–EB nuclear antigen titers and risk of MS as we originally reported, but it has become apparent that this association is strongly modified by age. Antibody titers of cases and controls were virtually identical in samples collected before age 20 years. However, while titers in controls remained constant, antibody titers of the cases increased, reaching a maximum between ages 25 and 29 years, followed by a plateau as discussed in the article based on the corrected data,2 this is a new and important finding that may be critical to the understanding of the relation between EBV and MS.

We apologize for the inconvenience caused to JAMA and its readers by the publication of incorrect data.

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Detection of Bladder Cancer Using a Proteomic Assay

To the Editor: In their article on detection of bladder cancer using a proteomic assay,1 Dr Grossman and colleagues do not specify why the studied patients underwent cystoscopy. It is necessary to understand the study population to judge validity and generalizability. In particular, it would be important to know what percentage of the patients had symptoms or signs, how many had occupational exposure, and how many were screened solely because they were smokers. Given the absence of standard screening recommendations based on smoking status, if this were the basis for testing in some of these subjects I would want to know if it was because of current or past smoking, or whether it was based on amount smoked per day.

The test characteristics of the nuclear matrix protein 22 (NMP22) assay in this population were not particularly good. A relatively low positive predictive value (37% in the study patients at highest risk for bladder cancer) is acceptable if the test saves lives or has other clinically important outcomes. That has not been shown for NMP22. The comparison to prostate-specific antigen is not appropriate because that test has also not been shown to save lives and its usefulness has re-

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