

## **My reply to a letter from Bianca Weinstock-Guttman, MD and Robert Zivadinov, MD, PhD, FAAN**

Ashton Embry, April 21, 2011

The Buffalo researchers have written a brief letter in reply to my essay which criticized their interpretations/speculations in a recent paper. Their letter is found at <https://www.facebook.com/notes/bnac-ccsvi-study/42011-letter-to-ashton-embry-phd-from-bianca-weinstock-guttman-md-and-robert-ziv/204930646207204> and my critique is at <http://www.facebook.com/DIRECTMS?ref=mf#!/notes/direct-ms/buffaloed-the-anti-ccsvi-bias-of-the-university-of-buffalo-researchers-and-their/210099172352923>

The letter doesn't say very much but two statements speak volumes. The first statement is **"We regret that you and your Board are disappointed that the findings or interpretations of our published research in the April, 2011 issue of Neurology did not produce the results you had hoped for"**. This is a beautiful illustration of how the Buffalo researchers like to twist the facts to their own desired result.

Anyone who has read my critique knows that I have absolutely no problem with their findings and in fact I wrote a glowing essay in February, 2010 on how valuable these results are (<http://www.direct-ms.org/sites/default/files/Embry%20CCSVI%20Vitamin%20D%20Action%20Needed.pdf> ). Overall the results of the Buffalo work are very positive and have established beyond a reasonable doubt that CCSVI is associated with MS. This is most welcome.

My criticism involved how the Buffalo researchers spun these positive results in a very negative fashion without any scientific logic or rationale. They simply said their data indicate that CCSVI is not a causal factor and that CCSVI is an effect of MS rather than a cause and provided no reasonable scientific arguments or rationale for such explosive speculations. Their data consists solely of association data and such data cannot be used to interpret whether a factor is a cause or an effect.

Note how they did the same thing with my critique. They imply that my critique stems from petty disappointment with results, that is, it is basically a sour grapes response. This has absolutely no basis in fact and if one reads my critique it is clear that it focuses on their shocking lack of scientific reasoning and their unwarranted negative spin on some very positive data which I have praised.

**These two examples demonstrate the penchant of the Buffalo researchers for the subjective manipulation of established facts to reach desired, yet unwarranted, conclusions.** This is perhaps the main reason why Direct-MS has

decided to back away from such individuals and to support scientists who do not play such games.

The other revealing statement in their response letter is “**we are finding a higher prevalence of CCSVI in patients with MS but not to a degree that would indicate that CCSVI causes MS.**” This shows that the Buffalo researchers really don’t understand or prefer to ignore the relationship between association and cause when it comes to a given factor. Their research results showed that CCSVI was 2.5 times more common in persons with MS (62%) than in healthy controls (general population) (25%). This is very significant and establishes that CCSVI is associated with MS, an important finding that the authors should have trumpeted instead of playing down.

It is critical to understand that association does not imply cause. It just says cause is a possibility and that more data such as factor timing and plausible biological mechanisms are needed to decide the question. I would also stress that the association % especially does not matter. A 100% association may end up not being causal (purely an effect) and a 62% association might end up as causal (in many cases). The bottom line is that one cannot make inferences regarding cause on the basis of association. This is a simple and fundamental principle of scientific analysis.

Unfortunately the Buffalo researchers in their paper and the statement above have ignored this principle and have made interpretations regarding cause solely on the basis of association. **The fact that they would claim the established association (62%) is not high enough to “indicate that CCSVI causes MS” is mind boggling and such a fundamental error in scientific analysis is most worrisome.** They have ignored the simple and critical relationship that cause cannot be derived from association data and this is another reason why Direct-MS is backing away from the Buffalo researchers.

In closing, I can only hope the Buffalo researchers will be more objective in the future. **CCSVI is a highly charged subject from both scientific and political perspectives and extreme care must be taken by any credible research group in formulating and publishing interpretations/speculations regarding the relationship of CCSVI to MS.** The substantial harm, not to mention the distress to tens of thousands of persons with MS and their families, that result when this is not done, has been demonstrated by the current unfortunate situation. Persons with MS deserve to be treated better than this by the Buffalo researchers.