Reviewer’s report

Title: The relationship between glucocorticoid receptor polymorphisms, stressful life events, social support, and post-traumatic stress disorder

Version: 2  Date: 10 June 2014

Reviewer: David M Diamond

Reviewer’s report:

This is an impressive contribution to the PTSD literature. The manuscript is very well-written. The authors have provided a thorough analysis of the association among GR polymorphisms, social support and stressful life events. I have only minor editing suggestions and comments.

The authors used DSM-IV criteria for PTSD. They should update their text to relate the findings to DSM-V criteria and in the description of PTSD by DSM-V standards.

There is a bias toward significantly more males in the PTSD group and more females in the controls. The authors should address whether this is a problem for the validity of the findings. Is there any gender bias in stress/gene/environment interactons?

It’s not clear to me how or why the factors in Table 1 are adjusted for age.

There is no information about the trauma type. It would be helpful to know if, for example, there is a differential gene/environment effect of assault/rape based PTSD versus combat PTSD. Indeed, there is no mention of how PTSD occurred in this population. Some mention of the nature of the trauma events would be helpful.

I find it odd, and perhaps a bit curious, that 18.2% of the PTSD subjects described their trauma as "moderate", not severe. Perhaps a post-hoc analysis of this PTSD subgroup versus the remaining PTSD subjects that described their trauma as "severe" might reveal a relation between genetics, life history and the magnitude of their perceived trauma intensity.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests