



SDI Review Form 1.6

Journal Name:	<u>Journal of Advances in Medical and Pharmaceutical Sciences</u>
Manuscript Number:	Ms_JAMPS_24441
Title of the Manuscript:	MOLECULAR INSIGHTS INTO THE ROLE OF INFLAMMATION AND OXIDATIVE STRESS IN EPILEPSY.
Type of the Article	REVIEW ARTICLE

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<u>Compulsory</u> REVISION comments	General comments: 1. Even if the manuscript represents a review, and the editorial policy does not considering mandatory that a manuscript has to contain a level of novelty, I suggest that the aim of the review should be more refined and better exposed. I suggest this since there are many reviews already published strongly connected to the topic of the manuscript. 2. It is very curious that we are in the beginning of the 2016 and the newest two references used by the authors are from 2013. A fast analysis of PubMed reviews published between 2013-2016 reveals at least 8 papers on the same topic as the manuscript. So, I strongly suggest to the authors to update the references list and to adapt the text according to the newest reports in the literature. Usually, the general aim of a review is to integrate the knowledge on a certain topic and to upgrade the knowledge based on the most recent scientific literature. 3. In relation with the previous comment, I suggest to the authors to use the integrative concept on Neurovascular unit in their analysis (for a presentation on this concept please consult, for instance, the reference: 2013, Neurochemistry International 63 (7), pp. 652-659;) 4. The English of the manuscript is very poor and I suggest that the revised form to be carefully corrected by a native English speaker. 5. The authors' writing style is hardly to follow, with	



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	very long phrases, often the ideas in the same phrase are separated by “;” instead of writing a new phrase, etc. I suggest the manuscript to be rephrased in a clearer manner. 6. In order to improve the readability and to help the reader to catch the message, I suggest the authors to introduce some figures with diagrams that present in a simplified manner the mechanisms described in the text. These are indicated especially for the sections 2.1 and 3.1 of the manuscript. Few particular comments that are exemplifying, but not completely covering, the above mentioned general comments: (page 1, row 9). The first sentence of the Abstract contains a kind of definition for epilepsy. I consider that the hyperactivity of neurons in epilepsy is not necessarily “innate acquired”. The majority of epilepsy subtypes are not genetically-predetermined, and there are many clinical situations when the disease is triggered as a side effect of a brain trauma, brain infection, brain tumor etc. (page 1, row 11). “...in search for successful AEDs has been lack of ...”. This is a very unclear fragment. Probably ... has been <i>consequence of a lack</i> ... (page 1, row 12). After “... epilepsy” the presence of “,” is strange. I think that the simplest solution is to insert “.” instead of “,” and to continue with a new phrase. Or, as alternative, to put a clear connection between what is before and after “,”. (page 1, row 14-17). The last sentence of the Abstract is very confusing putting together intracellular	
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	processes (calcium, ROS increase) with supra-cellular ones (BBB damage, inflammation, neuronal degeneration) without a logic connection. (page 1, row 23). After a general brief presentation of epilepsy, the authors “jump” in the same paragraph to the presentation of the social impact of the disease. This last issue should be presented in a separate paragraph. And, anyway, the data about the social impact must be from the WHO databases (last update) not from papers published 5 or 6 years ago by a certain group (Ngugi et al, 2010, 2011). (page 2, row 39). The authors claim that the amelioration of inflammation would be a “novel approach for treatment of epileptic seizures”. This affirmation is not quite correct since in the literature there are published in the last decade reports sustaining and trying this approach (see for instance: 2013, Neurochemistry International 63 (7), pp. 652-659; 2012, Epilepsia 53 (7), pp. 1113-1118; 2008 Nature Medicine 14 (12), pp. 1377-1383; 2013 Experimental Neurology 244, pp. 11–21) (page 2, row 46 -54). A typical example of the difficulty to read and understand the sentence with an unacceptable use of separators such as “;”. (page 2, row 62-65). Very unclear and confusing phrases. The microvasculature cannot represent a “cellular basis” of the BBB, since the microvasculature is a tissue. The endothelial cells cannot be “fenestrated” but the endothelial layer is ‘fenestrated’. The basal lamina is not a “type of cell” being an extracellular protein matrix.	
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	(page 3, row 67). I suppose that the authors are referring to: Transient changes... not "Transit changes..." and so on....	
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		

Reviewer Details:

Name:	Mihai Radu
Department, University & Country	Department of Neurological and Movement Sciences, Section of Anatomy and Histology, University of Verona, Italy