Reviewer's report

Title: Photoprotection of Buddleja cordata extract against UVB-induced skin damage in SKH-1 hairless mice.

Version: 1 Date: 28 April 2014

Reviewer: Rosa M Perez-Gutierrez

Reviewer's report:

1. I think there are too many authors to the work performed. My question is all involved? That part made everyone?

2. Whereas the UV rays are UVA-UVB-UVC -Rays because they only study photoprotection against UVB? The others are also very important producing UVC-induced cancer and UVA-induced photoaging, allergies etc. Is well known that The skin possesses an elaborate antioxidant defense system to deal with UV-induced oxidative stress; however, excessive and chronic exposure to UV radiation can overwhelm the cutaneous antioxidant capacity, leading to oxidative stress and oxidative damage which may result in skin disorders, immunosuppression, premature aging of the skin and development of melanoma and non-melanoma skin cancers. Flavonoids protect plants from solar UV radiation and scavenge UV generated ROS. Therefore, flavonoids have 3 different photoprotection effects including UV absorption, direct and indirect antioxidant properties, and modulate several signaling pathways.

3. Phenylpropanoid verbascoside, linarin and silymarin exhibited photoprotection effect.


4. The study is superficial due to:
Not done exhaustive review of the literature was made. There are numerous articles on flavonoids with photoprotection effect.
If authors suppose that the polyphenols (linarin and syringin) and phenylpropanoid (verbascoside) are responsible for the photoprotection effect (Effect previously reported) must determine molecular targets or mechanism of action in skin photoprotection

Could have identified other compounds with photoprotection activity they were not previously reported

**Level of interest:** An article of insufficient interest to warrant publication in a scientific/medical journal

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.