Zeynab-Sadat Payambarpour et al., Neurochem Neuropharm 2017, 3:2(Suppl)
DOI: 10.4172/2469-9780-C1-005



## The antiangiogenic activities of *Synanthedon tipuliformis* sexual pheromone on chorioallantoic membrane

**Zeynab-Sadat Payambarpour, Majid Hassanpour-Ezatti** and **Alireza Asgharianpour**
Shahed University, Iran

Many chemicals or substances might be associated with inflammation-induced angiogenesis which have not been discovered yet. So far we know some of the pheromones can reduce inflammation. Currant borer, *Synanthedon tipuliformis*, (Sesiidae); leopard moth, *Zeuzera pyrina* L. and pistachio twig borer, *Kermania pistaciella* (Lepidoptera: Oinophilidae) are three pest insects with well-known sex pheromones whose main active components of their sex pheromones are E2,Z13-18:OAc; (E, Z)-2, 13-octadecadien-1-ol acetate and (2S,12Z)-2-acetoxy-12-heptadecene, respectively, together with a series of lipid derivatives. We hypothesized that these pheromones may contain angiogenesis modulators. In the current study, we investigated the effects of the pheromones alone or in combination with paclitaxel on angiogenesis in chorioallantoic membrane. These pheromones demonstrated potent *in vivo* anti-angiogenic activity, which exceeded that of their solvents as reference agents. All tested pheromones showed the most potent anti-angiogenic activity, which was twice that of their solvents, as well combination of all of them with paclitaxel induced the most potent anti-angiogenic effect. This highlights the importance of identifying pro- and anti-angiogenic property in these pheromones not only for the development of novel angiogenesis modulators for the treatment of diseases such as cancer, but also their use as adjuvants for chemotherapy agents.

### Biography

Zeynab-Sadat Payambarpour got her Master's in Linguistics and then considering the interdisciplinary fields she chose Cognitive Sciences for PhD but facing some of the biological courses she preferred to get another Master's in Physiology and then with deeper knowledge wants to pursue PhD. She is now a Postgraduate Student of Physiology in Tehran Shahed University. She and her professor Dr. Majid Hassanpour-Ezatti have been working on neuroscientific projects and the effects of some pheromones on angiogenesis. She has been teaching and working over 10 years now and enthusiastically pursuing academic studies and research.

sadat.peyambar@gmail.com

**Notes:**