International Journal of Applied
and Natural Sciences (IJANS)
ISSN (P): 2319–4014; ISSN (E): 2319–4022
Vol. 9, Issue 3, Apr–May 2020; 59–68

International Academy of Science,
Engineering and Technology
Connecting Researchers; Nurturing Innovations

COMPUTATIONAL SCREENING OF ANTI-TOXIC COMPOUNDS FROM INDIAN MEDICINAL PLANTS AGAINST ENTEROTOXEMIA IN SHEEP AND GOAT: AN IMMUNE-INFORMATICS APPROACH

Sujatha P L[1], Ananda Chitra M[2], Vijayarani K[1] & Preetha S P[3]

[1]Research Scholar, Bioinformatics Centre & ARIS Cell, Madras Veterinary College, Chennai, Tamil Nadu, India

[2]Research Scholar, Central University Laboratory, Tamil Nadu Veterinary and Animal Sciences University, Chennai, Tamil Nadu, India

[3]Research Scholar, Department of Veterinary Pharmacology, Madras Veterinary College, Chennai, Tamil Nadu, India

ABSTRACT

Enterotoxemia is also called as the pulpy kidney disease or over eating disease which is an acute poisonous condition. It is caused by the non motile anaerobic spore forming bacterium called Clostridium perfringens. As the organism grows in number, it releases very potent toxins (bacterial poisons) that harm the animal. These toxins can cause damage to the intestine as well as numerous other organs. This can result in fatalities, particularly in the non-vaccinated animal or in the newborn lamb or kid whose dam has not been vaccinated. An attempt was undertaken to find the potential drug candidates using Indian medicinal plants against enterotoxemia using the immune-bioinformatics approach. The study showed that the plant Andrographis paniculata (Nilavembu) showed very good interaction with the target protein. However the results could be validated with in-vivo and in-vitro studies.

***KEYWORDS**: Enterotoxemia, Andrographis, In-Silico*

Article History

***Received:** 16 Apr 2020 | **Revised:** 18 Apr 2020 | **Accepted:** 04 May 2020*