Research laboratory 01, Dayananda Sagar University

Project 1:
Principle Investigator: Dr. Sunil S More, Dean- SBAS.
Co-investigator: Dr. Gautham SA (resigned)
Project Assistant: Shwetha V
DST funded project: DST-SERB-EMR-PROJECT EMR/2015/002086

Envenomation by snake is an important global health issue and is declared as the most "neglected tropical disease" by the world health organization. In India alone, it is estimated that 35,000 – 50,000 snake bites occur, which is fatal. Anti-Snake venom(ASV) is the only available treatment for snake bite, but it has drawbacks such as development of ASV is costly, time consuming and requires appropriate storage conditions, despite of this ASV will result in conditions like anaphylaxis and other severe side effects. Thus, studies are being carried out to find an effective alternative treatment for snake envenomation especially for people under occupational hazards like farmers, farm labours, villagers etc. In recent years research is been focused on medicinal plants for developing an antidote against snake bite. Thus, the present study, is to focus on developing a cocktail of herbal antidotes against snake envenomation as an alternative for the ASV therapy which is cheaper, easily available and effective.

Snake venom neutralization studies performed on Chick Embryo Model

Shwetha has been awarded Sri C V Jacob award for best oral presentation on the work "Inhibitory potential of aqueous ethanolic extracts of Indian medicinal plants on major enzyme toxins of elapid venom" in the national conference organised by Dayananda Sagar University on " Advances and innovations in Biotechnology: multidisciplinary approaches to food, health, environmental and energy issues". [November 15th-16th, 2018]

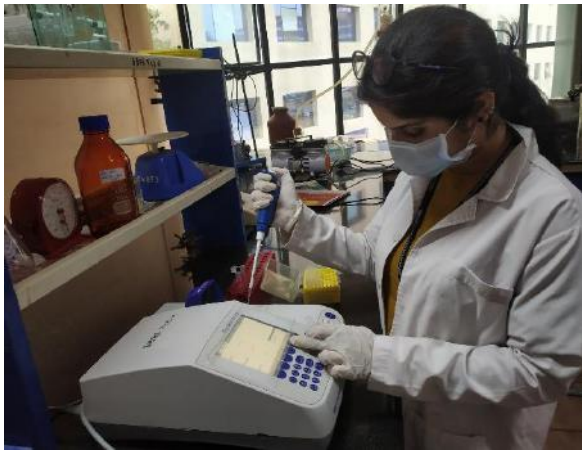
Project 2 :

Principal Investigator : Dr. Arpan Kumar Maiti, Assistant Professor Biotechnology – SBAS
Co-Investigator : Dr. Sunil S More, Dean SBAS and Dr. Gautham SA (resigned)
Project Assistant : Spoorthi B C
DST funded project : EMR/2016/001981

Ulcerative Colitis (UC) is a chronic condition characterised by inflammation and sores (ulcers) in the lining of large intestine (colon). The proposed project being novel involving intestinal neuropeptides in UC treatment holds on significance in the current status, as India is considered as the UC (42.8 – 44.3/10,000 population) capital of South Asia. The treatment methods available being partially effective has resulted in increased colectomy, thus the search for good anti-colitogenic agents has become essential.

In consideration with the urgent need for appropriate treatment, the project underlines the application of intestinal neuropeptides as a prophylactic measure in ameliorating mitochondrial dysfunction in affected colon epithelial cells as against the existing treatment procedure targeting ulceration and inflammation.

Drying and intraperitoneal route administration of neuropeptide-Vasoactive intestinal peptide to 8 weeks old Ulcerative colitis induced c57 strain of mice



Histochemical studies and respiratory functional studies on treated mice mitochondria

Spoorthi has been awarded First prize for the best oral presentation at the National Conference held in KLE Technological University, Hubbali