



The Department Of Biotechnology
Faculty of Life and Allied Health Sciences

Cordially Invites you to the

Prof. Darshan Ranganathan Memorial Lecture (2022)
on

Computational mining for secondary metabolite-producing enzymes within genomes and transcriptomes of medicinal plants

Distinguished Lecture

by

Prof. R. Sowdhamini (NCBS-TIFR)



Secondary metabolites produced by herbal plants are of great medicinal value. These small molecules are structurally complex, yet plants are able to synthesise the right molecules with the help of enzymes embedded within their genome. We have investigated within Tulsi genome assembly for enzymes (such as terpene synthases and cytochrome P450) that produce secondary metabolites. I will briefly describe our searches within omic-data of other valuable plants such as *Moringa oleifera* and *Cissus quadrangulis* as well.

Finally, in my talk, I hope to explain our recent collaborative work, with Prof. P Balaram and Dr Radhika Venkatesan, on Sankapushpi (*Clitoria ternatia*). This plant is used in Indian Ayurvedic medicine as a memory booster, brain tonic and potent antioxidant. From within transcriptome data of this plant, we have followed the enzymes that participate in the production of cyclotides.

In general, the identification of biosynthetic enzymes from natural resources have a commercial angle due to the attractive possibility of plant-to-bench side transfer of such knowledge.

Venue

ALC Multimedia center, University House,
Ramaiah University Of Applied Sciences,
GG campus

Date & Time

**AT 10AM
ON APRIL 21, 2023**