

GRG TRUST RESEARCH PROJECT

Synthesis of eco-friendly nano-composites and its antibacterial activity

PI: Dr. M. Sheeba

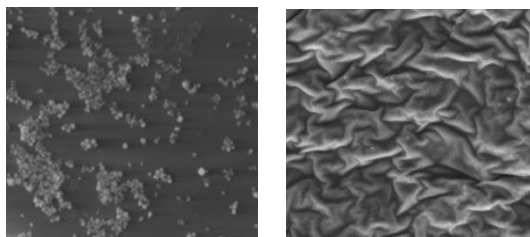
Co PI: Dr. P. Charumathi

Amount Sanctioned: 1.50 lakhs

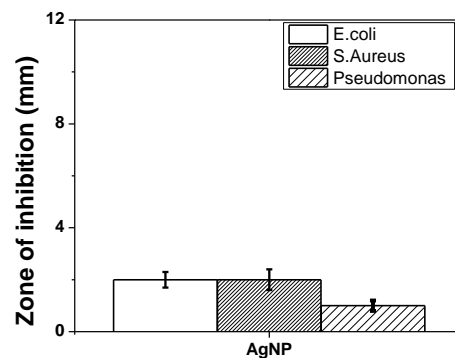
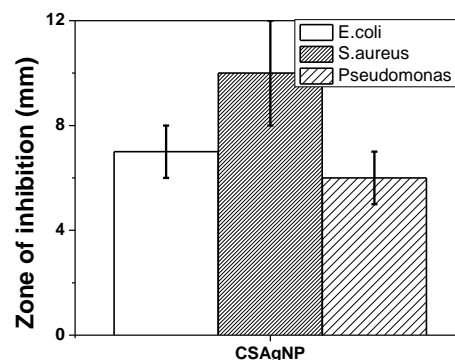
Year: 2018

Project outcomes:

- Silver nanoparticles were synthesized using *C.quadrangularis* stem extracts and *O. tenuiflorum* leaf extracts.
- Difference in surface morphology of AgNP and Chitosan coated AgNPs (CS-AgNPs) prepared from *C.quadrangularis* and *O.tenuiflorum* plant extracts were observed.
- The particle size of CS-AgNP was found to be higher than that of AgNPs in both cases.
- Enhanced antibacterial activity of AgNPs were observed when combined with Chitosan, against the gram positive and gram negative bacteria. CS-AgNP showed increased antimicrobial activity, where as AgNPs showed very minimal antimicrobial activity.



CS-AgNP from *C.quadrangularis* and *O.tenuiflorum*



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- ❖ Publications: Manuscript preparation
 - ❖ Conference/ Seminar/ Workshop: Nil
 - ❖ Books: Nil
 - ❖ Any other achievements: Nil
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