AIM AND OBJECTIVES

Aim

The nanoparticle synthesis is one of the important areas of modern nanotechnology. The current research is aimed for the developing different experimental protocols for the synthesis of silver nanoparticles of variable size and shapes. The use of microorganisms such as bacteria, actinobacteria, fungi and algae has emerged as a novel method for the synthesis of nanoparticles. Hence, the present investigation is initiated with the following objectives;

Objectives

- Isolation of actinobacteria from alkaline soil samples.
- Screening of actinobacterial strains for silver nanoparticles synthesis.
- Synthesize of silver nanoparticle using potential actinobacteria strain(s).
- Characterization of the biosynthesized silver nanoparticles by UV-Vis spectrophotometer, XRD, AFM, SEM and TEM analysis.
- Study of antimicrobial, antifungal, wound healing, anti-cancer and larvicidal activities of synthesized silver nanoparticles.
- Identification of potential actinobacteria using colony, microscopic, biochemical and molecular (16S rRNA sequencing) characteristics.