

## **Bacterial membrane disruption in *Bacillus subtilis*, *Staphylococcus aureus* and *Escherichia coli* by *Cynodon dactylon* extract**

### **ABSTRACT**

*Cynodon dactylon* is a type of perennial grass that possesses great medicinal values. It has been reported to possess great antibacterial activity against many Gram positive and negative bacteria. It is believed that most antibacterial compounds show great antibacterial mechanism through membrane toxicity effect. Electron microscope (EM) is a powerful tool in observatory analysis which offers capability to observe extremely small sample or structure up to micron size. In present study the effect of *C. dactylon* extract on *Bacillus subtilis*, *Staphylococcus aureus* and *Escherichia coli* cellular membrane was investigated using Scanning Electron Microscope (SEM). SEM observation revealed the disruption of bacterial membrane and caused complete lyse in *B. subtilis* and *E. coli* and *S. aureus* after treated with *C. dactylon* SPE extract which led to bacterial cell death.