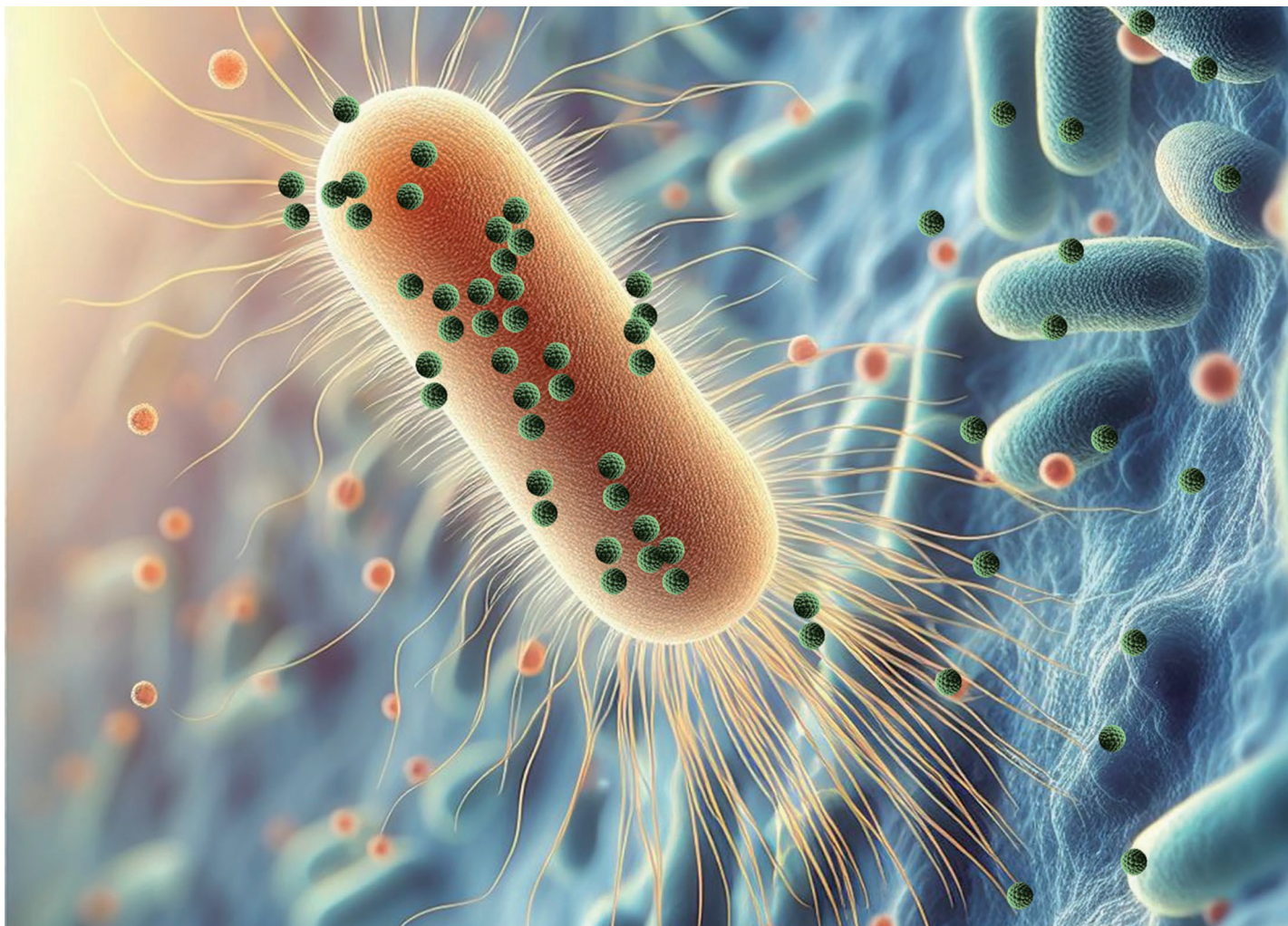


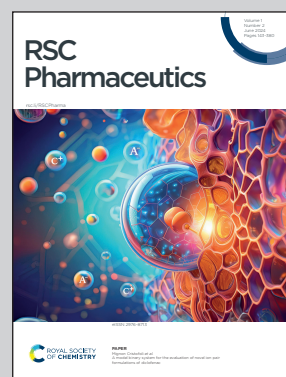


Showcasing research from Professor Satya Ranjan Sarker's laboratory, Department of Biotechnology and Genetic Engineering, Jahangirnagar University, Dhaka, Bangladesh.

Green synthesis of silver nanoparticles using *Phyllanthus emblica* extract: investigation of antibacterial activity and biocompatibility *in vivo*

Silver nanoparticles were generated, exploiting the antioxidant potential of phenolic compounds found in extracts of *Phyllanthus emblica*. The nanoparticles demonstrated amazing antibacterial activity against a wide spectrum of bacteria, such as highly pathogenic *Salmonella typhi*, *Vibrio cholera*, and antimicrobial resistant *Staphylococcus aureus*. They brought about antibacterial activity by producing reactive oxygen species (ROS) upon interacting with bacterial cell membrane lipids. They also demonstrated great hemocompatibility against human red blood cells (RBCs) and were biocompatible with rat liver and kidneys.

As featured in:



See Satya Ranjan Sarker *et al.*,
RSC Pharm., 2024, 1, 245.