Original Article

Green synthesis of chitosan nanoparticles, optimization, characterization and antibacterial efficacy against multi drug resistant biofilm-forming *Acinetobacter baumannii*

Noura El-Ahmady El-Naggar¹, Alaa M. Shiha², Hoda Mahrous³, A. B. Abeer Mohamed⁴

¹ Department of Bioprocess Development, Genetic Engineering and Biotechnology Research Institute, City of Scientific Research and Technological Applications (SRTA-City), New Borg El-Arab City 21934, Alexandria, Egypt.

² Microbial Biotechnology Department, Genetic Engineering and Biotechnology Research Institute, University of Sadat City, Egypt.

³ Industrial Biotechnology Department, Genetic Engineering and Biotechnology Research Institute, University of Sadat City, Egypt.

⁴ Microbial Biotechnology Department, Genetic Engineering and Biotechnology Research Institute, University of Sadat City, Egypt.

**Corresponding Author’s information**

**Dr. Noura El-Ahmady Ali El-Naggar**

**Address:**

Bioprocess Development Department,

Genetic Engineering and Biotechnology Research Institute,

City of Scientific Research and Technological Applications,

New Borg El- Arab City, 21934, Alexandria, Egypt

**Tel:** (002)01003738444  **Fax:** (002)03 4593423

**E-mail:** nouraalhmady@yahoo.com
Results

Supplementary Figure S1. *Eucalyptus citriodora* leaves
**Supplementary Figure S2.** The desirability function and the optimum predicted values for the maximum chitosan nanoparticles biosynthesis using *Eucalyptus citriodora* leaves extract.