Supplementary Information (SI) for Nanoscale Advances. This journal is © The Royal Society of Chemistry 2024

Supplementary Material

Article Title: Effects of silver-decorated PLGA nanoparticles on Staphylococcus epidermidis biofilms and evaluation of detoxification limit of bacteria against these nanoparticles

Chisato Takahashi^{1*}, Keiichi Moriguchi^{2,3}

¹Department of Materials and Chemistry, National Institute of Advanced Industrial Science and Technology (AIST), 4-205, Sakura-zaka, Moriyama-ku, Nagoya, Aichi 463-8560, Japan

²Department of Rehabilitation, Faculty of Health and Sciences, Wakayama Professional University of Rehabilitation, Minato-machi, Wakayama-shi, Wakayama 640-8222, Japan

³Department of Oral Anatomy, School of Dentistry, Aichi Gakuin University, 1-100, Kusumoto-cho, Chikusa-ku, Nagoya, Aichi 464-8650, Japan

* Correspondence:

Corresponding Author chisa-takahashi@aist.go.jp

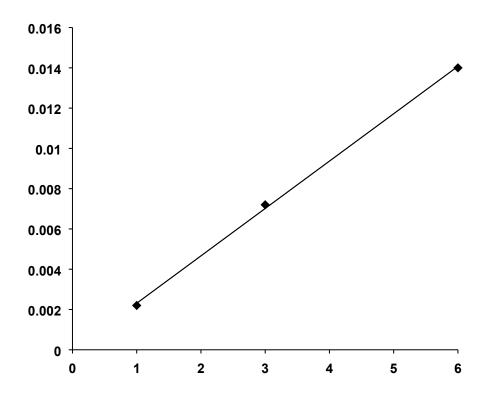


Figure S1. Silver ions standard curve measured by an AAS.

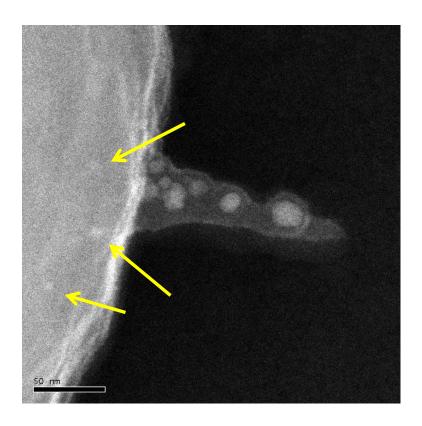


Figure S2. ADF-STEM image of the biofilms after treatment of Ag PLGA nanoparticles for 30 min. Silver nanoparticles are incorporated within the fibril, and it is evident that the fibril adapts their shape to align with the morphology of silver nanoparticles.

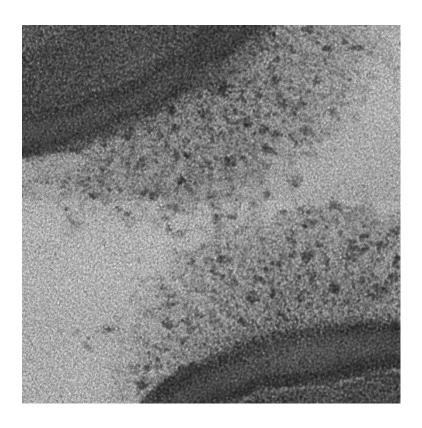


Figure S3. TEM image of the biofilms after treatment of Ag PLGA nanoparticles for 2 h.