

*Supplementary Material*

**Development and Characterization of Gentamicin Loaded  
Arabinoside-Sodium Alginate Films as Antibacterial Wound  
Dressing**

Abdulaziz I. Alzarea<sup>1</sup>, Nabil K. Alruwaili<sup>2</sup>, Muhammad Masood Ahmad<sup>2</sup>, Muhammad Usman Munir<sup>3</sup>, Adeel Masood Butt<sup>4</sup>, Ziyad A. Alrowaili<sup>5</sup>, Muhammad Syafiq Bin Shahari<sup>6</sup>, Ziyad S. Almalki<sup>7</sup>, Saad S. Alqahtani<sup>8</sup>, Anton V. Dolzhenko<sup>6</sup>, and Naveed Ahmad<sup>2\*</sup>

<sup>1</sup> Department of Clinical Pharmacy, College of Pharmacy, Jouf University, Sakaka 72388, Aljouf, Saudi Arabia

<sup>2</sup> Department of Pharmaceutics, College of Pharmacy, Jouf University, Sakaka 72388, Aljouf, Saudi Arabia

<sup>3</sup> Department of Pharmaceutical Chemistry, College of Pharmacy, Jouf University, Sakaka 72388, Aljouf, Saudi Arabia

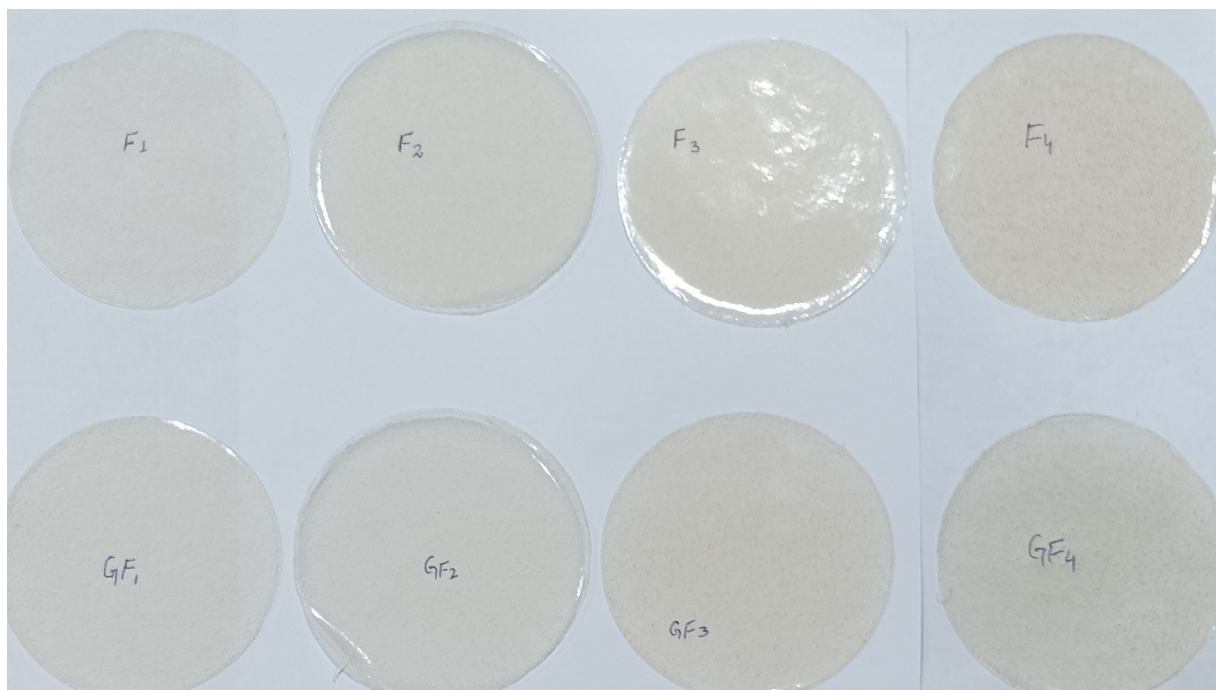
<sup>4</sup> Institute of Pharmaceutical Sciences, University of Veterinary & Animal Sciences, Lahore 54000, Pakistan

<sup>5</sup> Department of Physics, College of Sciences Jouf University, Sakaka 72388, Aljouf, Saudi Arabia

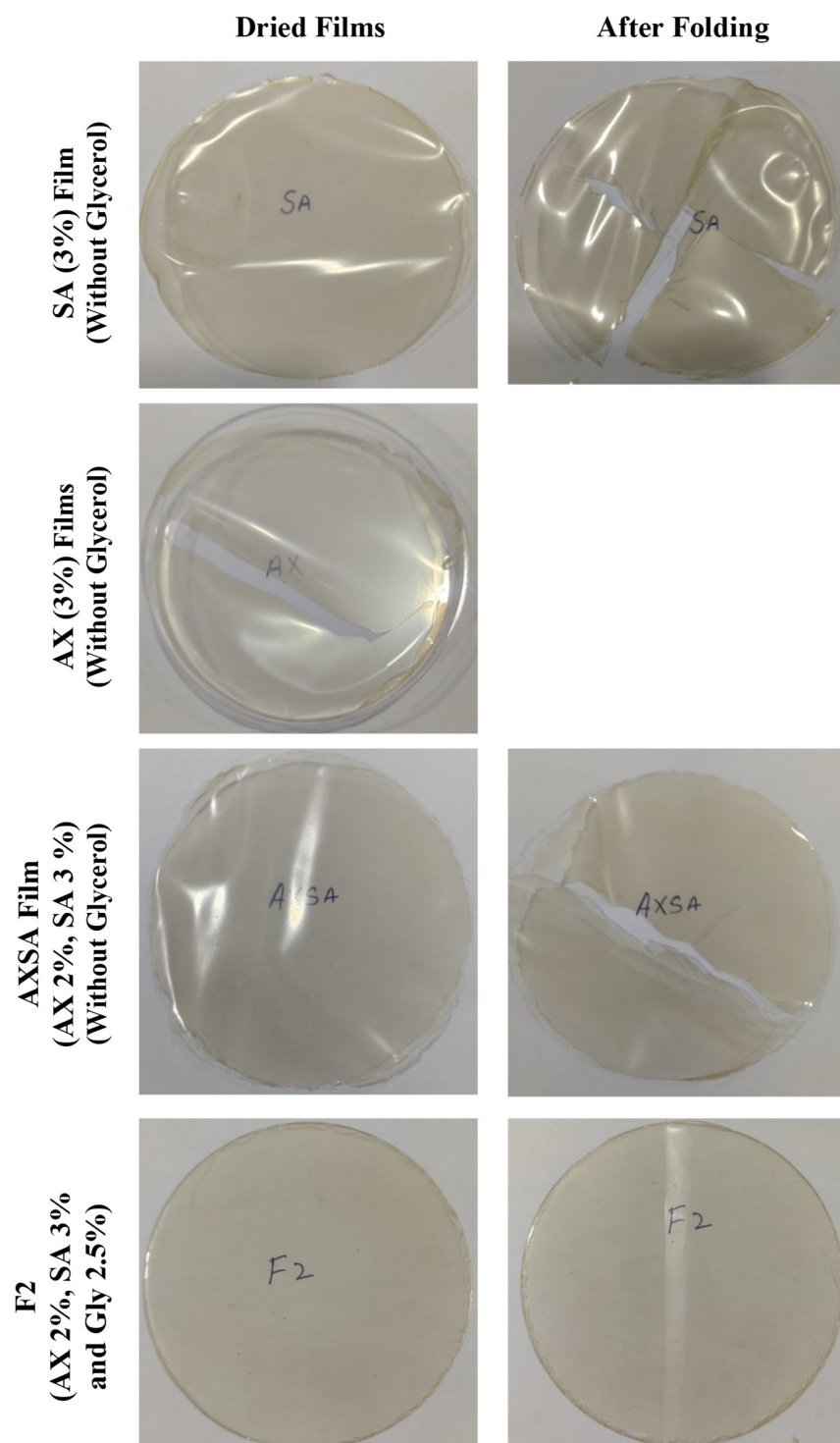
<sup>6</sup> School of Pharmacy, Monash University Malaysia, Jalan Lagoon Selatan, Bandar Sunway, Selangor Darul Ehsan 47500, Malaysia

<sup>7</sup> Department of Clinical Pharmacy, College of Pharmacy, Prince Sattam Bin Abdulaziz University, Al-Kharj 11942, Riyadh, Saudi Arabia

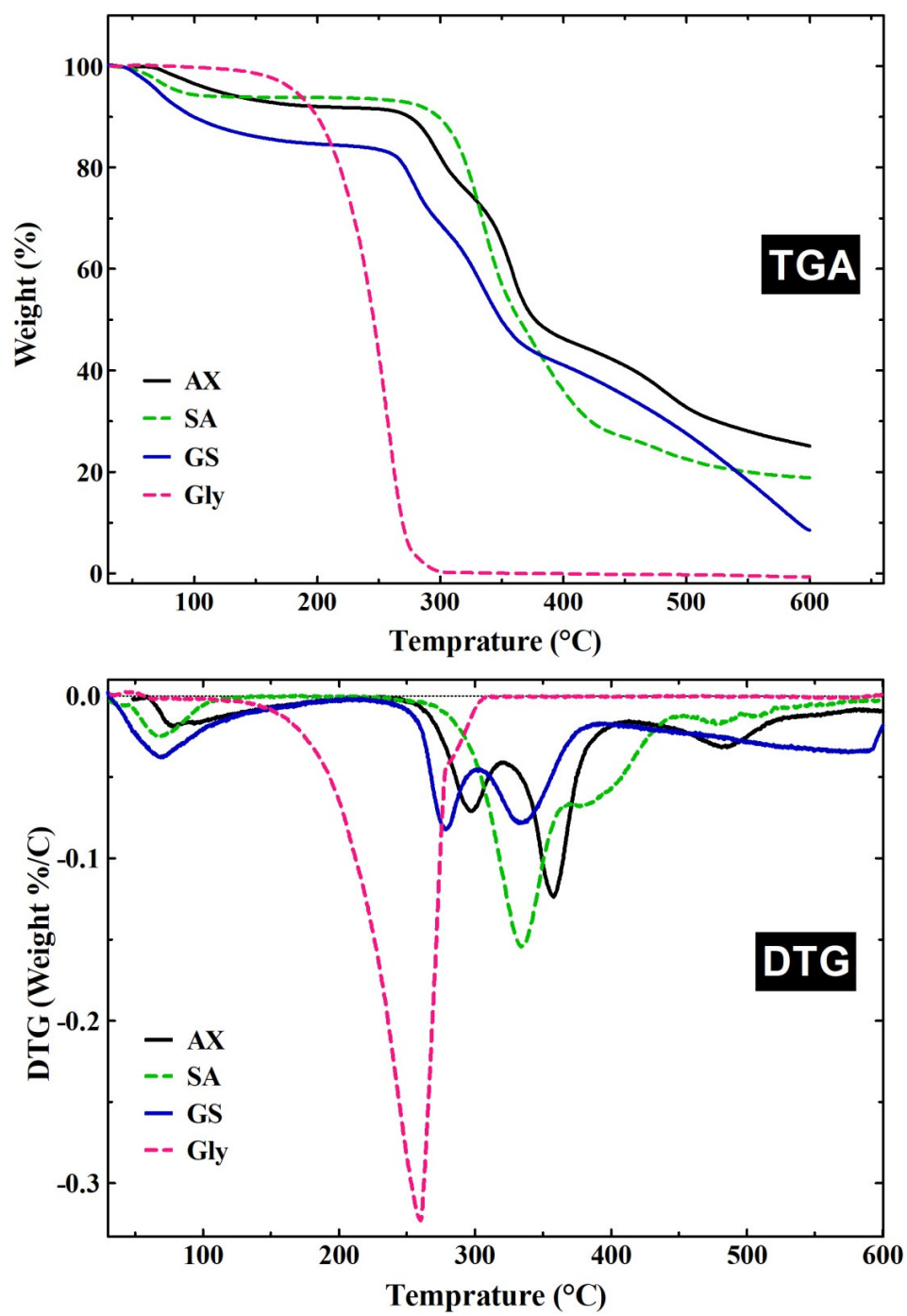
<sup>8</sup> Department of Clinical Pharmacy, College of Pharmacy, Jazan University, Jazan 45142, Saudi Arabia



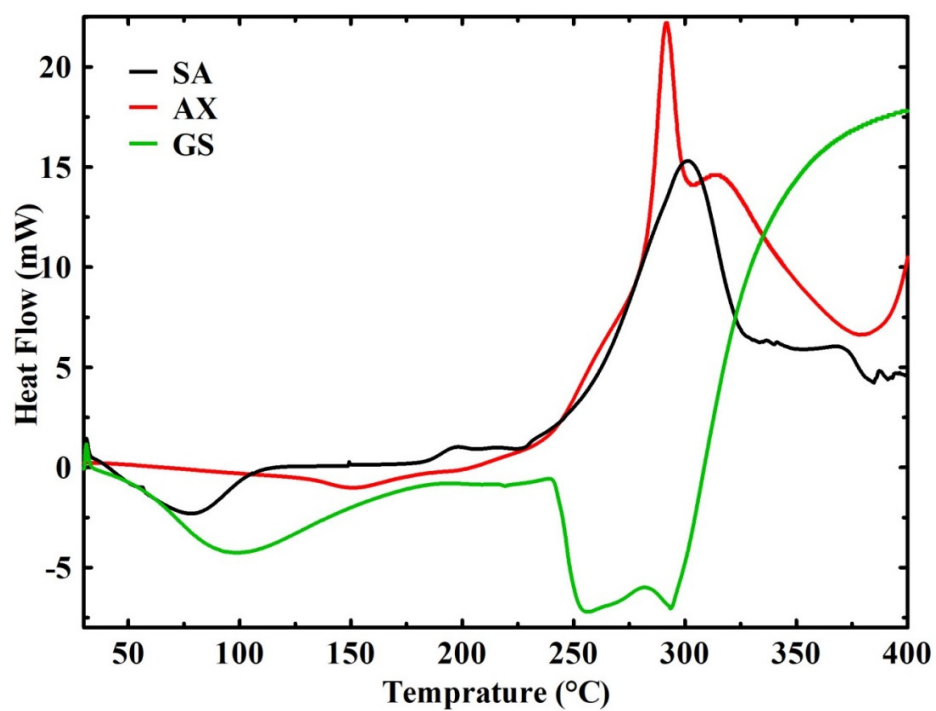
**Figure S1.** Optical images of blank (F1, F2, F3, and F4) and GS-loaded (GF1, GF2, GF2, and GF4) AXSA films.



**Figure S2.** Comparison between the handling of AX, SA and AXSA films (without glycerol) with F2 films (with 2.5% glycerol).



**Figure S3.** TG and DTG curves of of the AX, SA, GS and Gly.



**Figure S4.** DSC curves of AX, SA, and GS powder.