



## Supplementary Materials

# Antibiotic-Loaded Hyperbranched Polyester Embedded into Peptide-Enriched Silk Fibroin for the Treatment of Orthopedic or Dental Infections

Zili Sideratou <sup>1,§</sup>, Marco Biagiotti <sup>2,§</sup>, Dimitris Tsiourvas <sup>1,§</sup>, Katerina N. Panagiotaki <sup>1</sup>, Marta V. Zucca <sup>2</sup>, Giuliano Freddi <sup>2</sup>, Arianna B. Lovati <sup>3,§</sup> and Marta Bottagisio <sup>4,§,\*</sup>

<sup>1</sup> Institute of Nanoscience and Nanotechnology, NCSR “Demokritos”, 15310 Aghia Paraskevi, Greece;

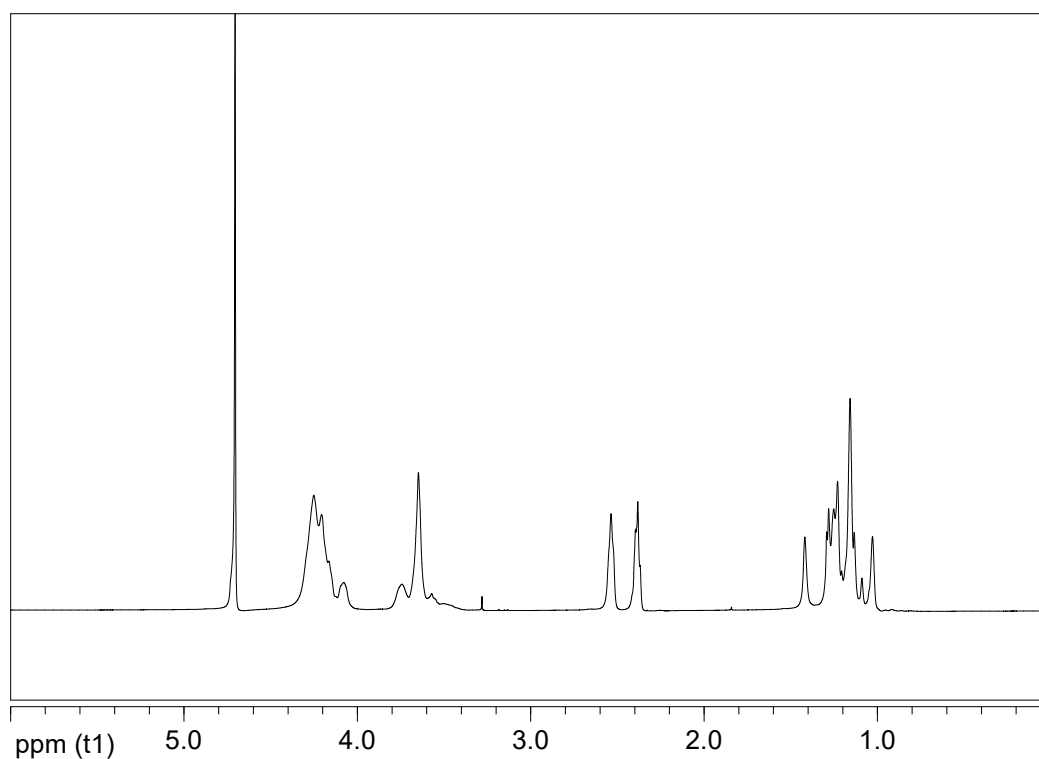
<sup>2</sup> Silk Biomaterials srl, Via Cavour 2, 22074 Lomazzo, Italy

<sup>3</sup> IRCCS Istituto Ortopedico Galeazzi, Cell and Tissue Engineering Laboratory, Via R. Galeazzi 4, 20161, Milan, Italy

<sup>4</sup> IRCCS Istituto Ortopedico Galeazzi, Laboratory of Clinical Chemistry and Microbiology, Via R. Galeazzi 4, 20161, Milan, Italy

§ and § equally contributed

\* Correspondence: marta.bottagisio@grupposandonato.it; tel. +390266214069



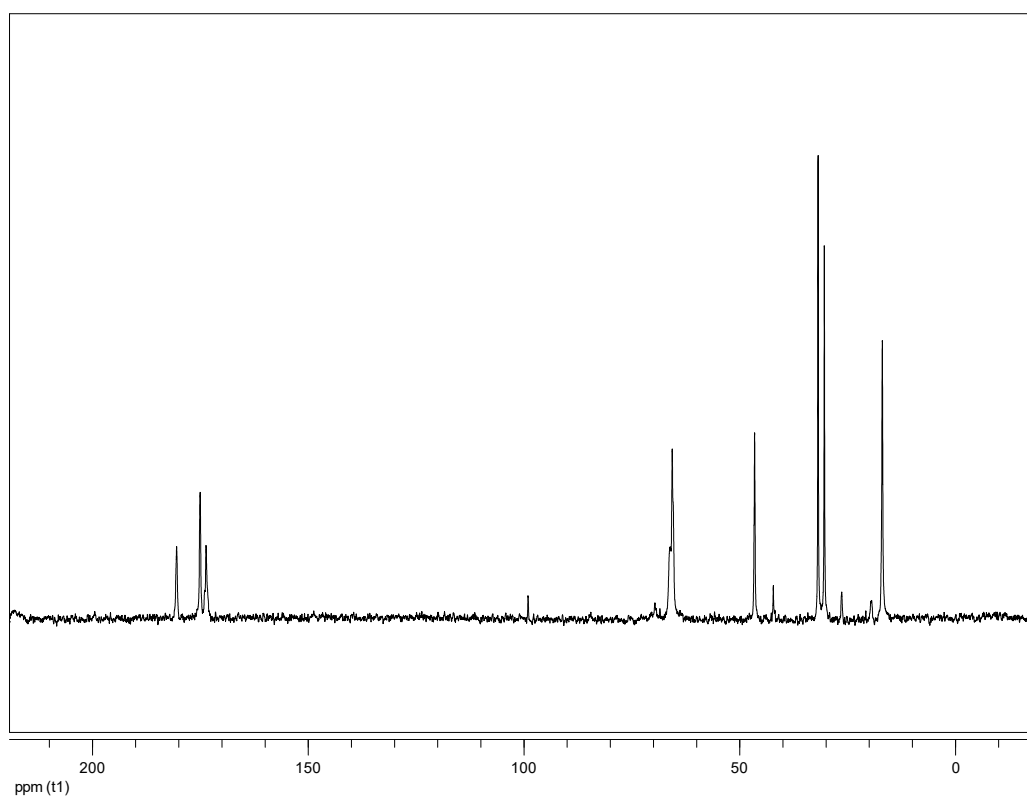


Figure S1. <sup>1</sup>H NMR and <sup>13</sup>C NMR spectra of CHAP in D<sub>2</sub>O.

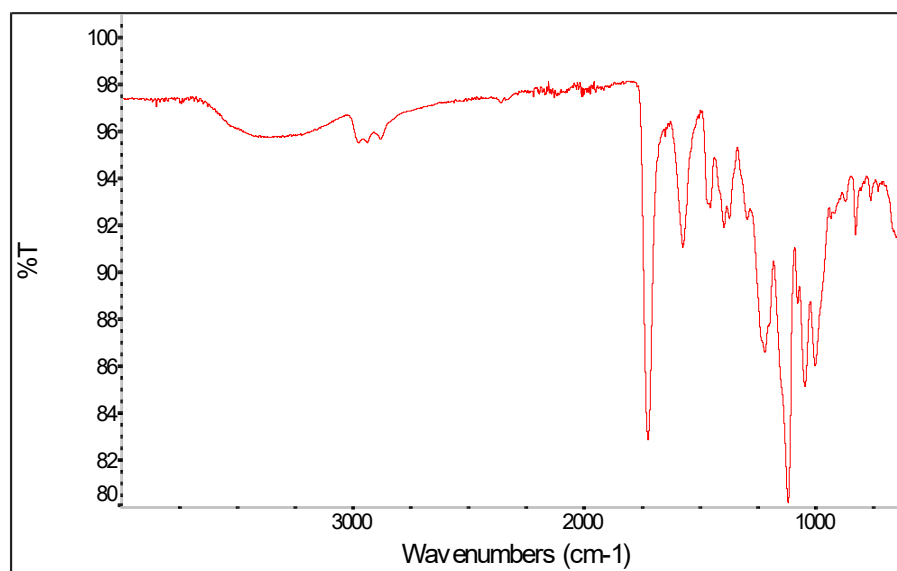
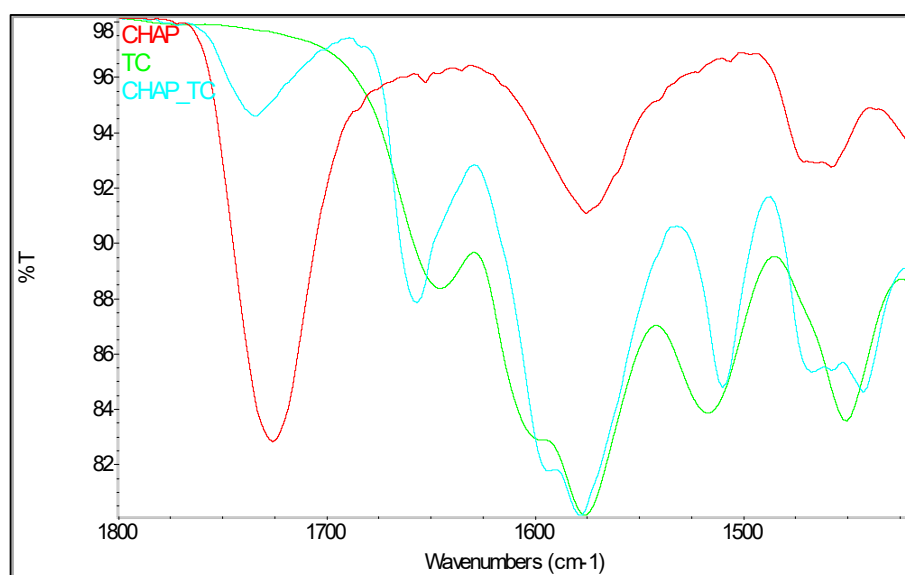
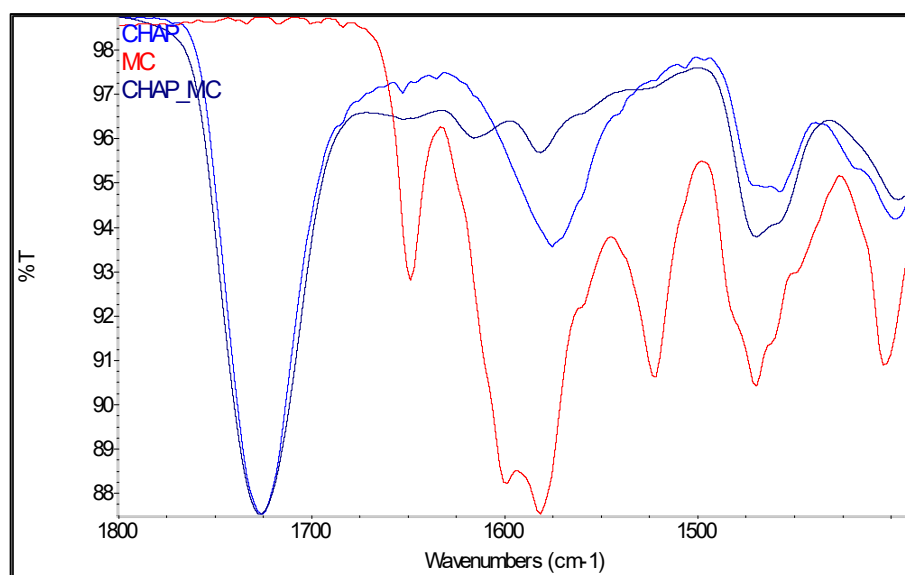


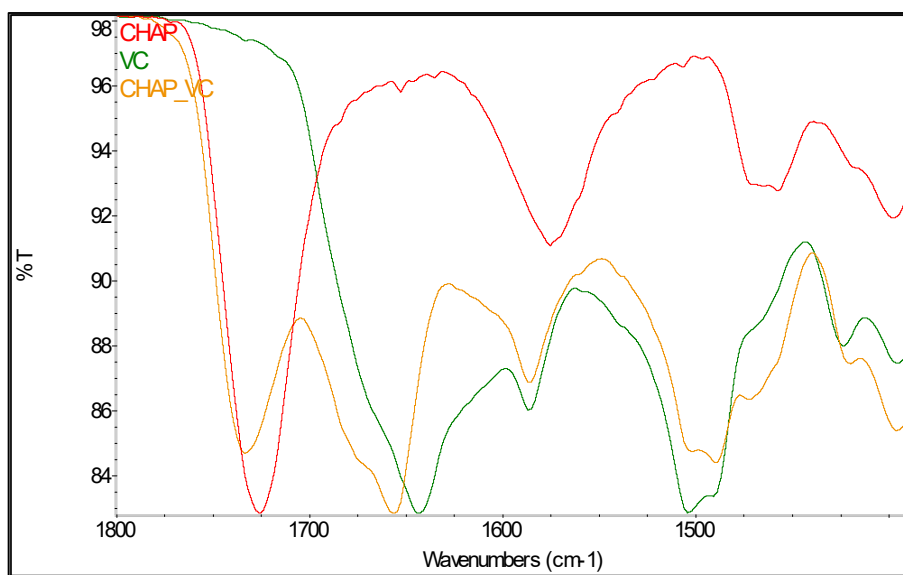
Figure S2. FTIR spectrum of CHAP.



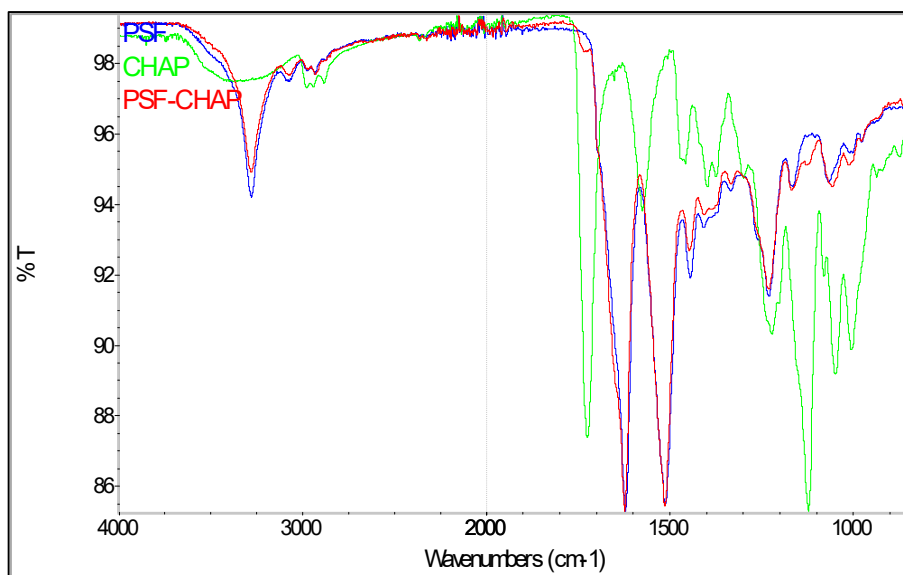
**Figure S3.** FTIR spectra of CHAP, tetracycline (TC) and TC-loaded CHAP nanoparticles (CHAP\_TC).



**Figure S4.** FTIR spectra of CHAP, minocycline (MC) and MC-loaded CHAP nanoparticles (CHAP\_MC).



**Figure S5.** FTIR spectra of CHAP, vancomycin (VC) and VC-loaded CHAP nanoparticles (CHAP\_VC).



**Figure S6.** FTIR spectra of CHAP, PSF and PSF@CHAP20 sponges.