Appendix A Supplementary Information

Decellularization of caprine forestomach rumen tissue modified with silver nanowires as an antibacterial skin substitute scaffold in wound care therapeutics

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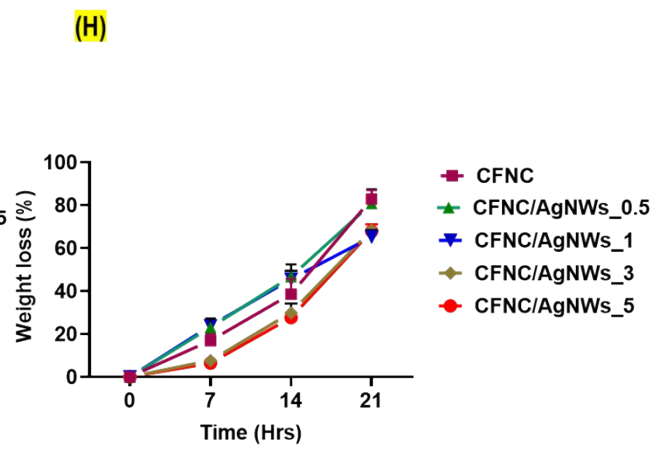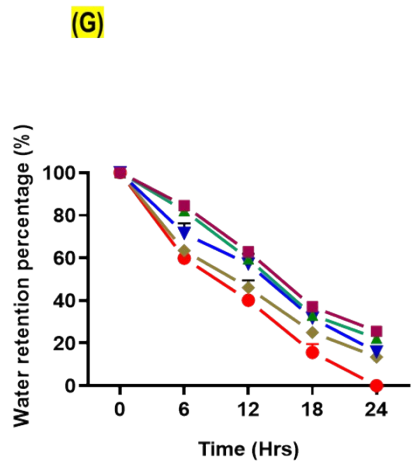*Email: gopalshankar.k@gmail.com, gopalshankar@nitc.ac.in*

(A) CFNC — 79.06±4.60
(B) CFNC/AgNWs_0.5 — 95.8±4.20
(C) CFNC/AgNWs_1 — 100.3±7.54
(D) CFNC/AgNWs_3 — 105.2±4.12
(E) CFNC/AgNWs_5 — 110.4±2.86

(F) Total porosity (%) vs sample; (G) Water retention percentage (%) vs Time (Hrs); (H) Weight loss (%) vs Time (Hrs)
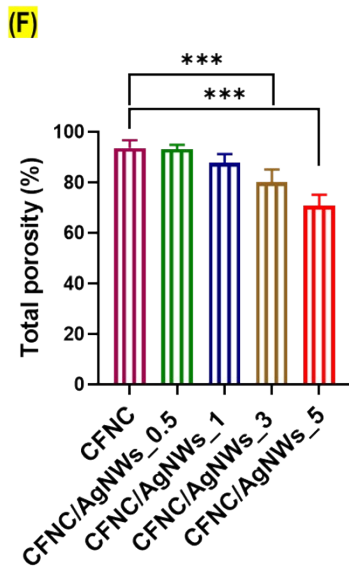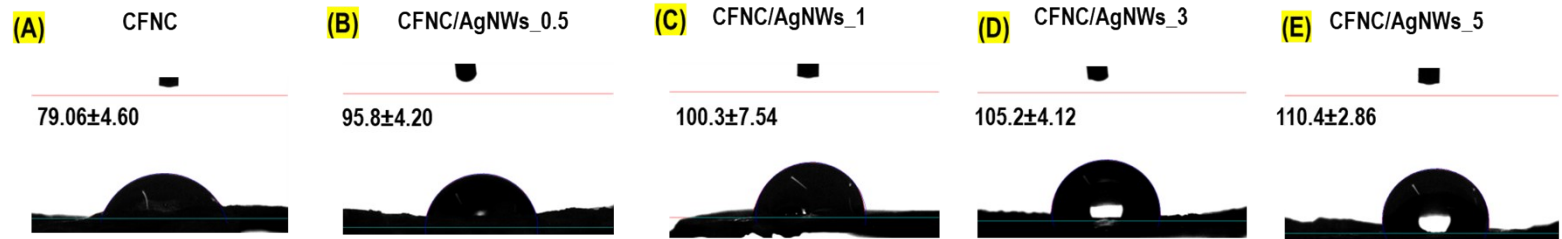
Figure S1: (A-E): Contact angle measurements of CFNC/AgNWs scaffolds, (F): Total porosity of CFNC/AgNWs scaffolds, (G): W_R (%) of CFNC/AgNWs scaffolds as a function of time, (H): Biodegradation of CFNC/AgNWs scaffolds as a function of time. Asterisk indicates level of significance for (***$p \leq 0.001$)
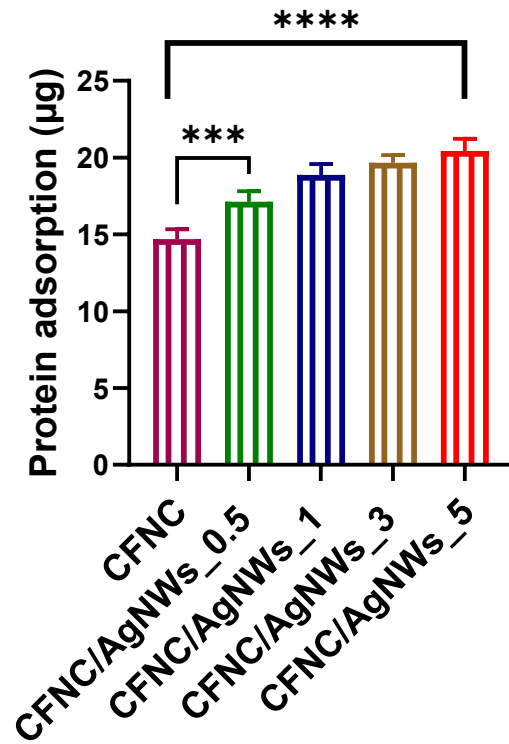
Figure S2: Protein adsorption in CFNC/AgNWs scaffolds. Asterisk indicates level of significance for (****p $\leq$ 0.0001) and (***p $\leq$ 0.001).
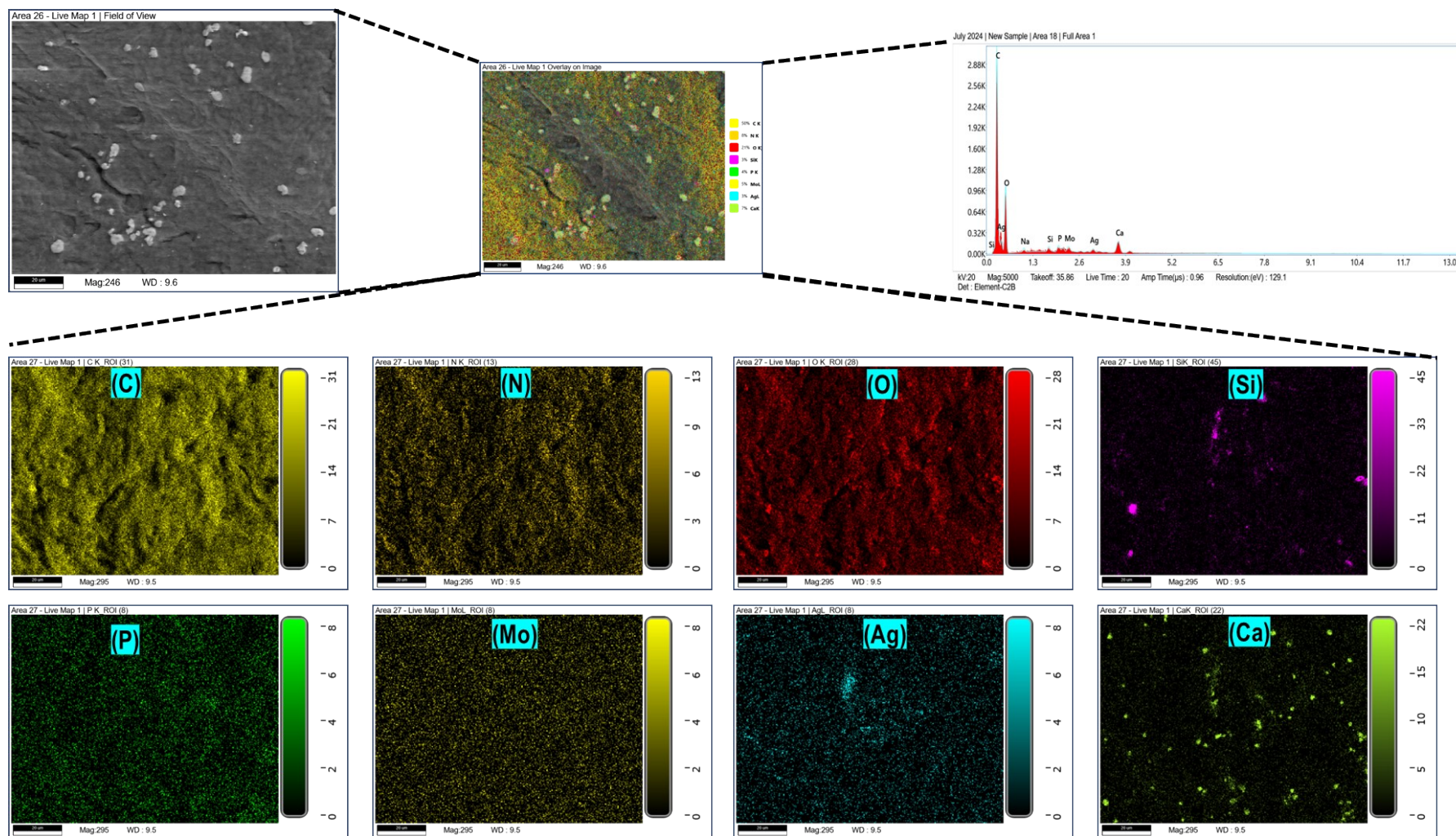
Figure S3: Elemental mapping analysis showing the presence of different elements present in CFNC/AgNWs_5 scaffold group.
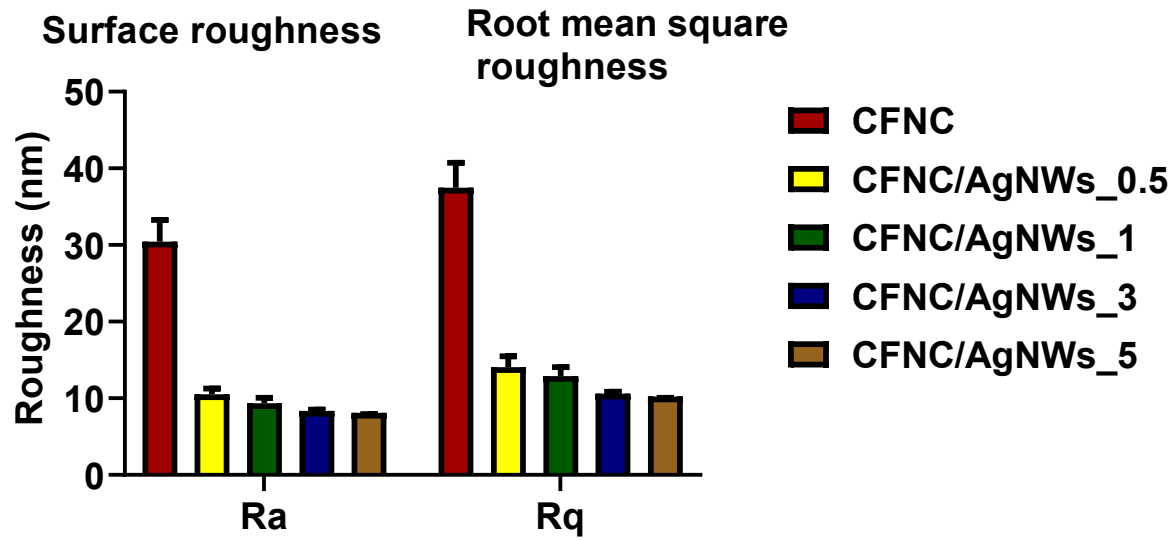
Figure S4: Surface roughness and root mean square roughness of CFNC/AgNWs scaffolds.

Elements	CFNC	CFNC/AgNWs_0.5	CFNC/AgNWs_1	CFNC/AgNWs_3	CFNC/AgNWs_5

C K (%)	66.39	69.81	69.57	68.54	67.41
N K (%)	31.94	28.31	28.67	28.98	28.76
O K (%)	0.51	0.03	0.09	0.31	0.44
Si K (%)	0.12	0.07	0.11	0.11	0.26
P K (%)	0.18	0.22	0.19	0.27	0.41
Ca K (%)	0.40	0.70	0.48	0.95	1.40
Mo L (%)	0.43	0.69	0.71	0.64	0.72
Ag L (%)	0.03	0.16	0.17	0.21	0.61

Table S1: EDX element composition of different elements in CFNC/AgNWs scaffolds.