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Supplementary Materials

Hybrid materials obtained by immobilization of biosynthesized Ag nanoparticles with antioxidant and antimicrobial activity

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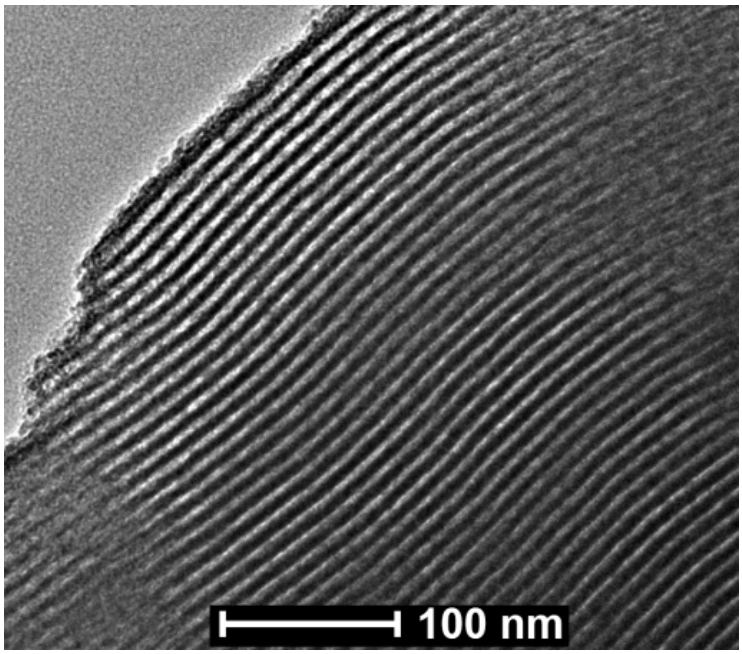


Figure S1. TEM image of STb support

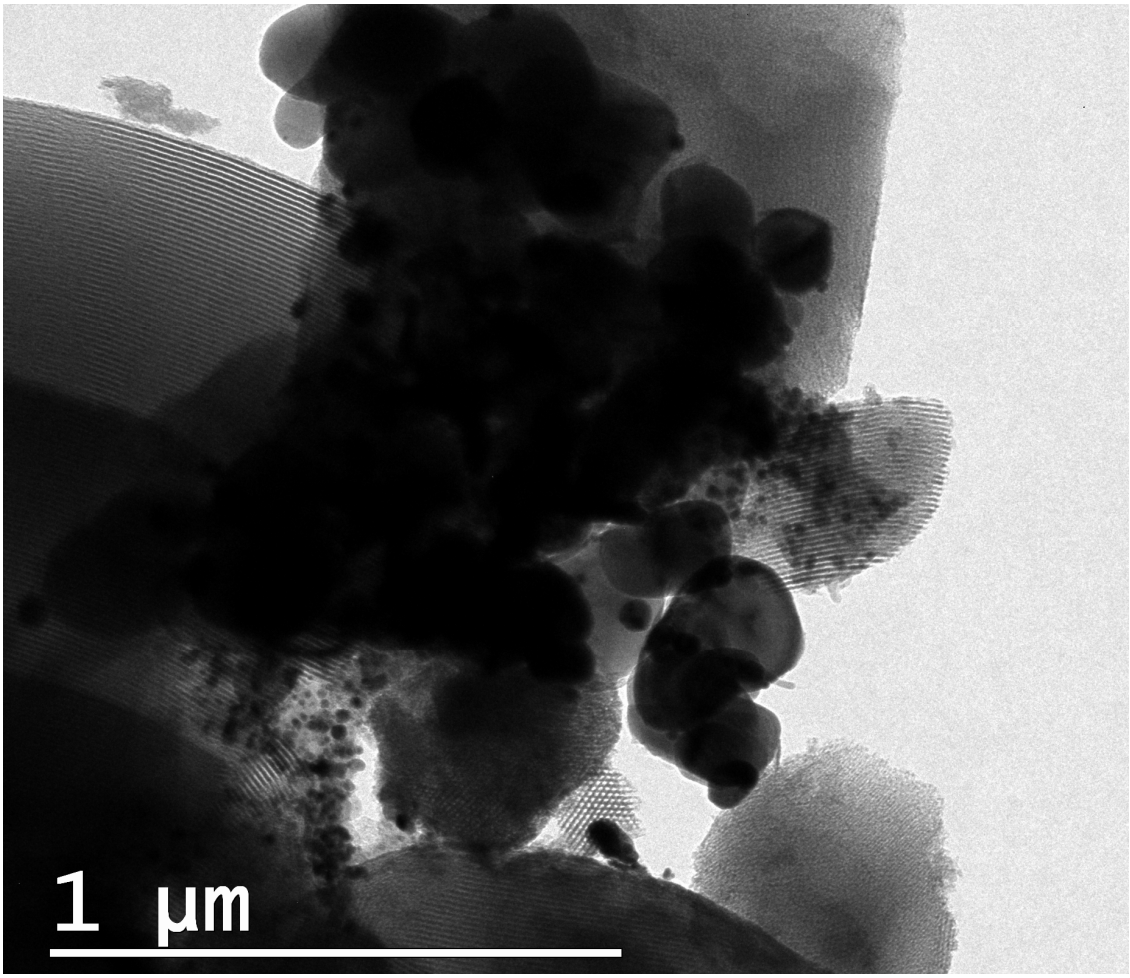


Figure S2. TEM image of STrAg sample

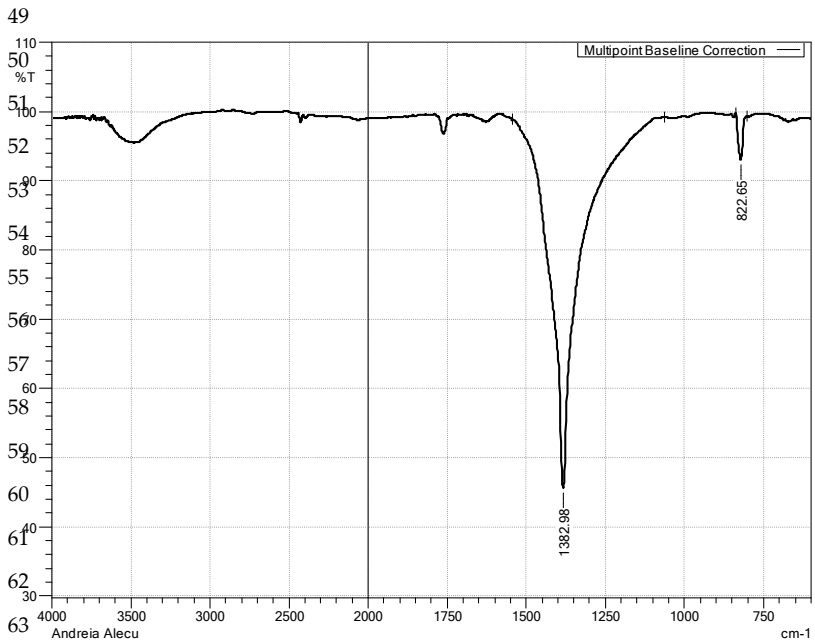
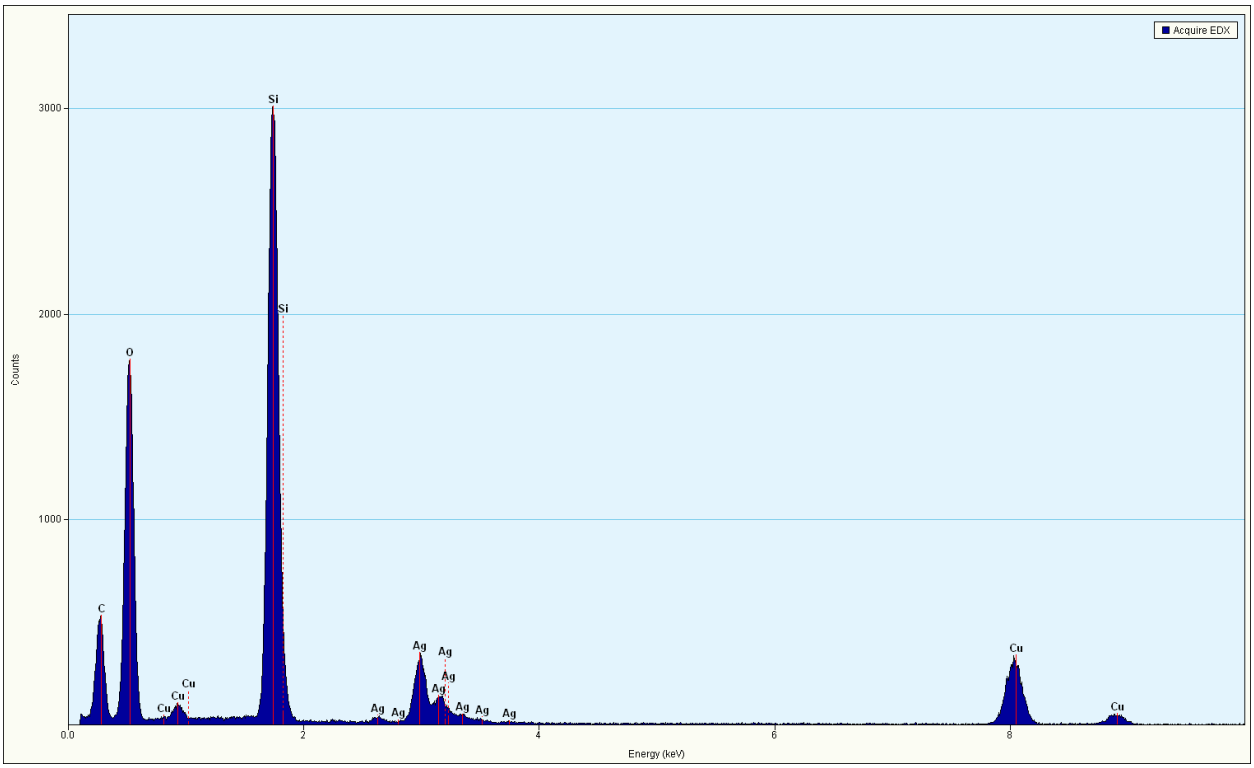
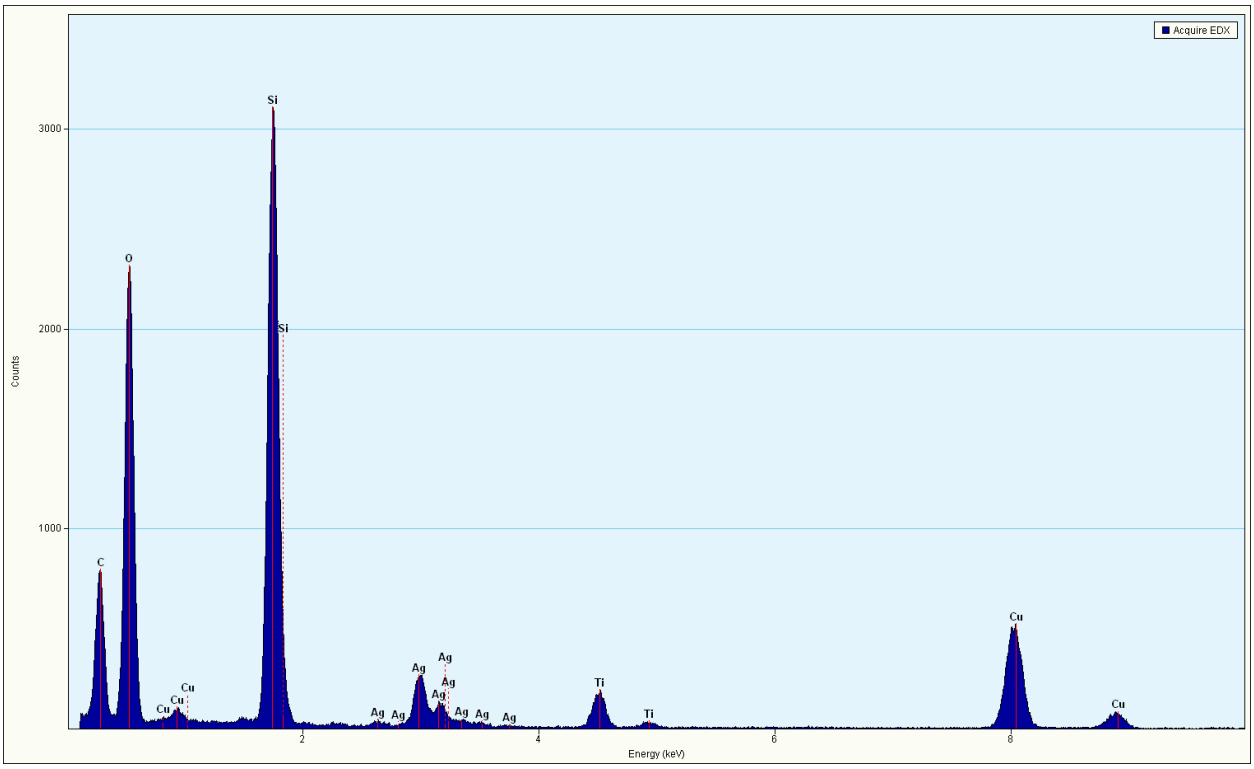


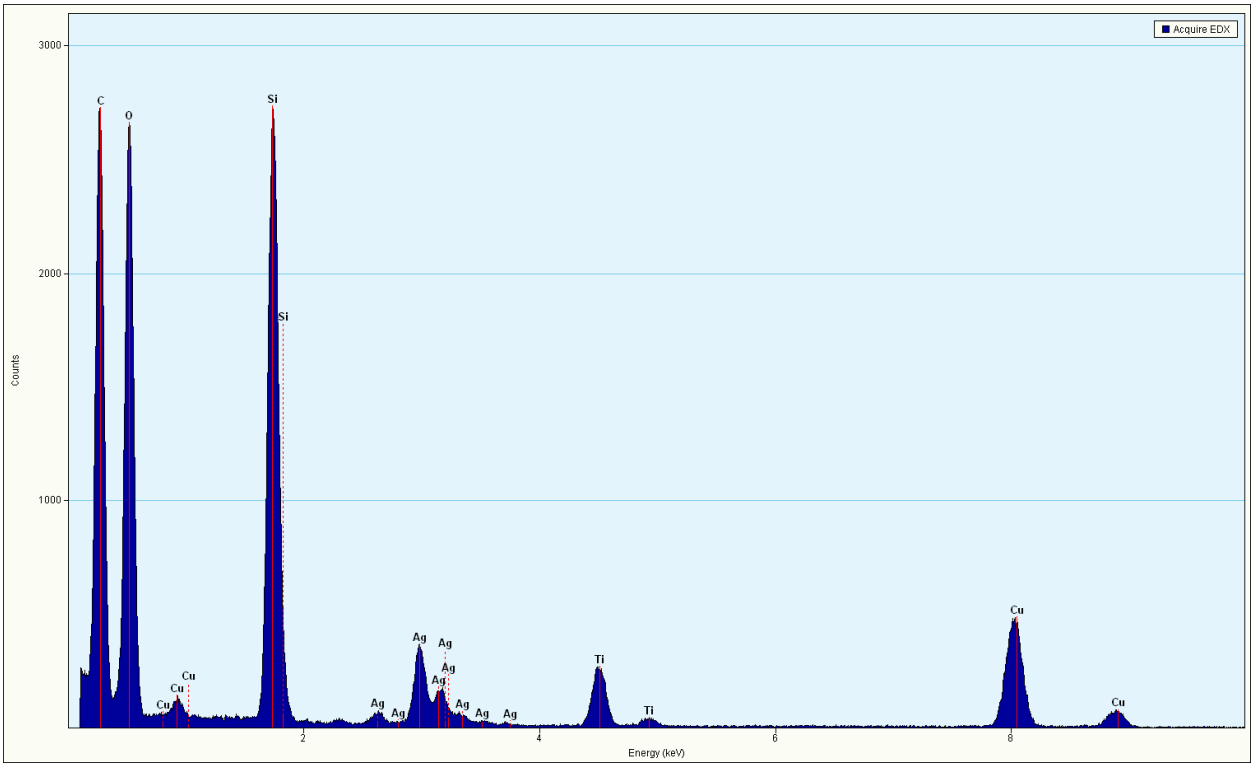
Figure S3. FT-IR spectrum of $AgNO_3$.



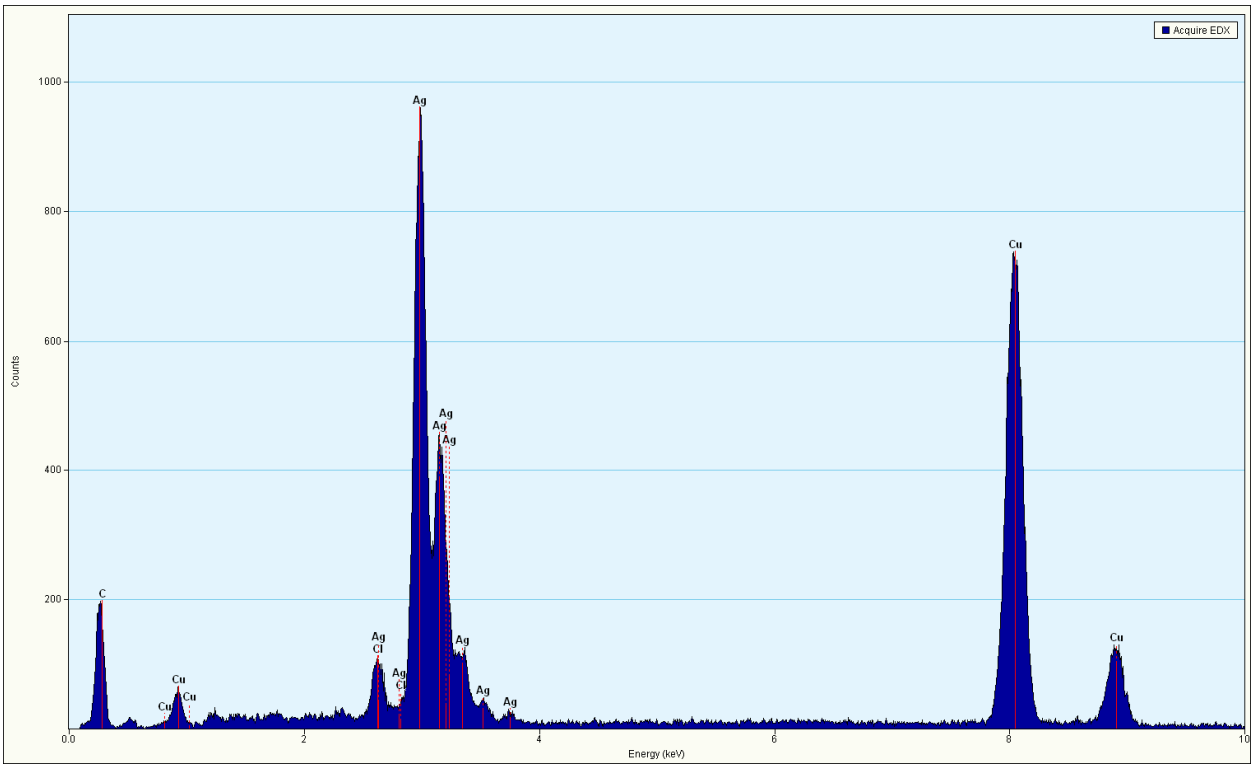
a)


Acquire EDX
Counts
Energy (keV)
C
O
Si
Cu
Ag
Ti

b)


Acquire EDX
Counts
Energy (keV)
C
O
Si
Cu
Ag
Ti

c)



d)

Figure S4. EDX images of SAg (a); STrAg (b); STbAg (c) and AgNPs (d) samples

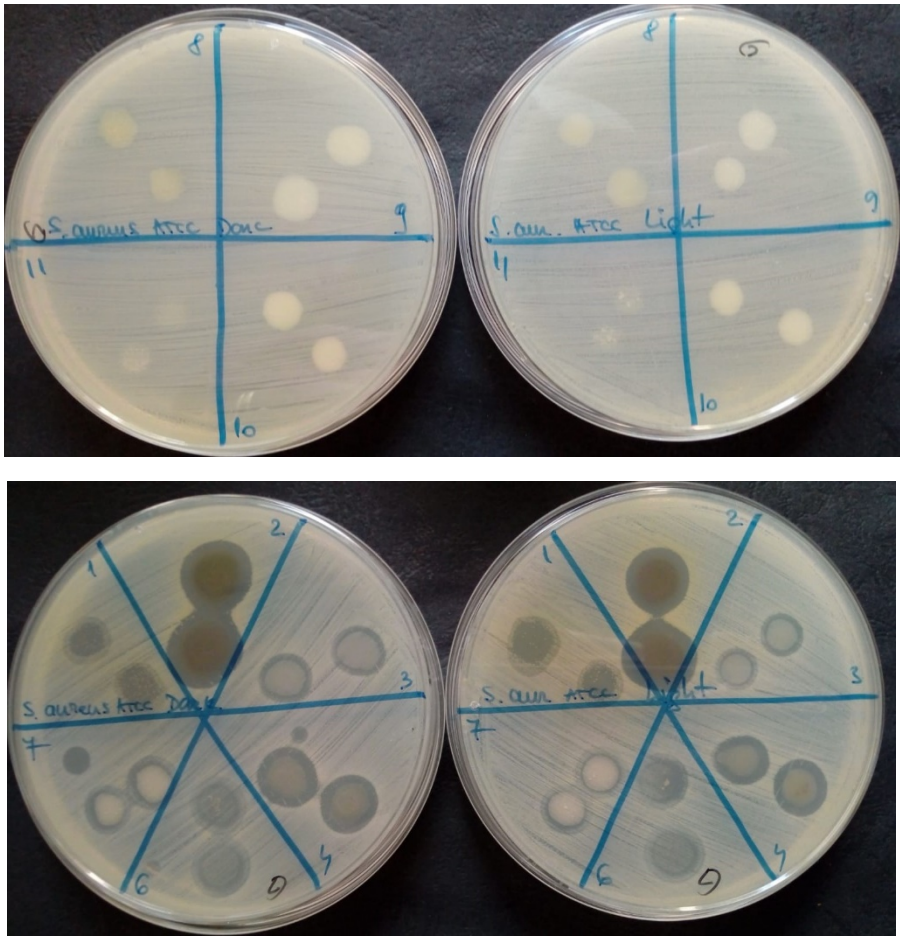
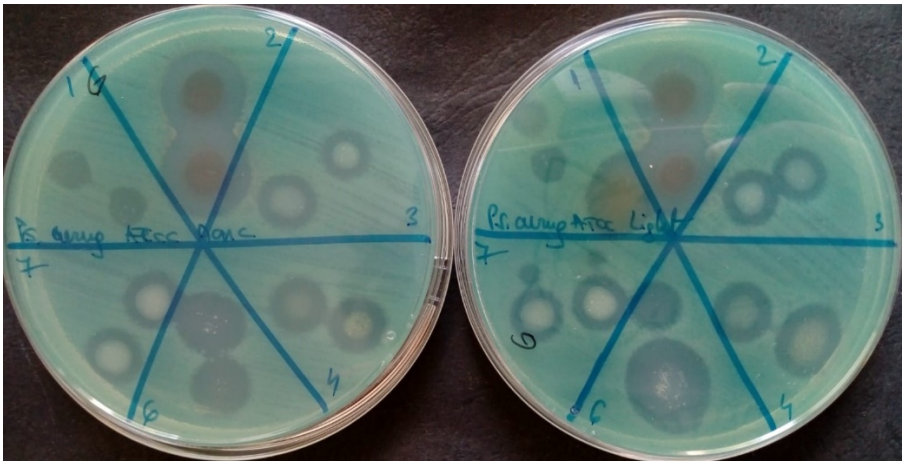


Figure S5. Growth inhibition zone diameters obtained after placing the sample spot on solid medium streaked with microbial inoculum of *Staphylococcus aureus* ATCC 25923;
(Left – darkness condition; right – light condition).



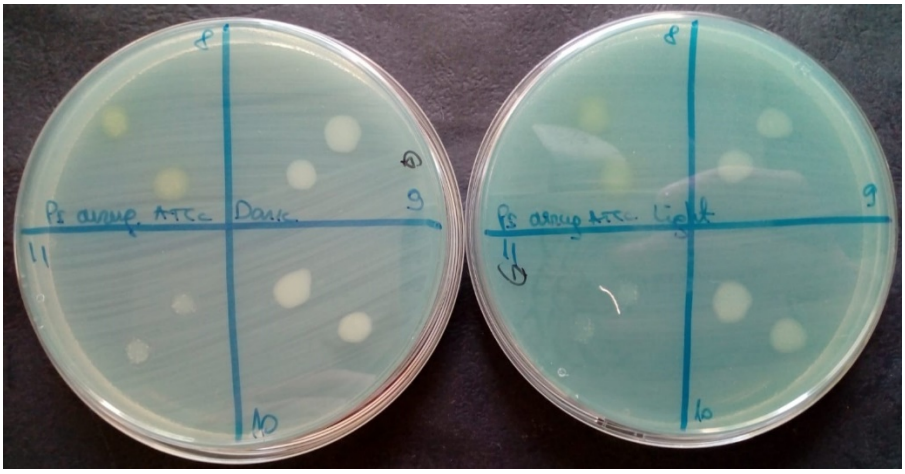
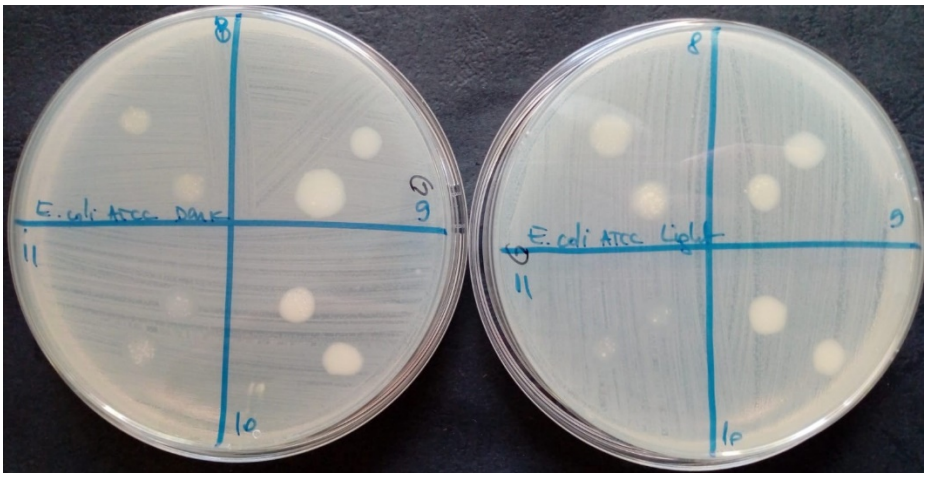


Figure S6. Growth inhibition zone diameters obtained after placing the sample spot on solid medium streaked with microbial inoculum of *Pseudomonas aeruginosa* ATCC 27853;
(Left – darkness condition; right – light condition).



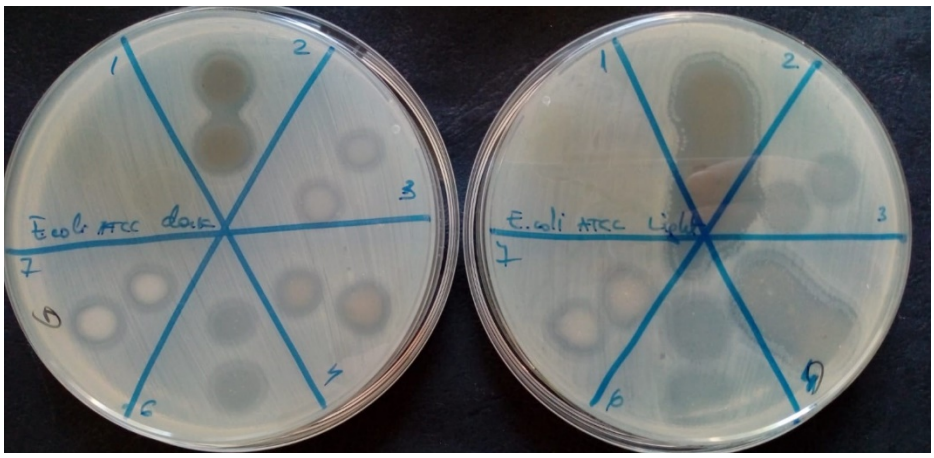


Figure S7. Growth inhibition zone diameters obtained after placing the sample spot on solid medium streaked with microbial inoculum of *Escherichia coli* ATCC 25922.
(Left – darkness condition; right – light condition).

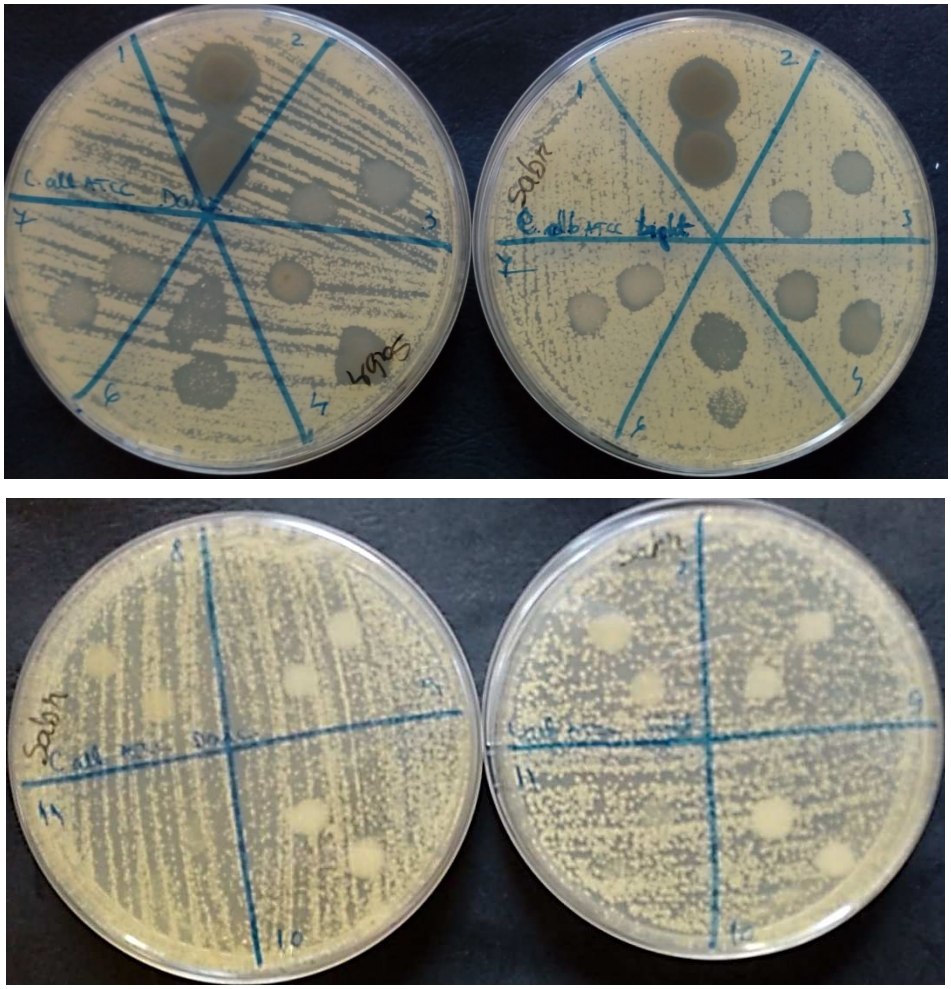


Figure S8. Growth inhibition zone diameters obtained after placing the sample spot on solid medium streaked with microbial inoculum of *Candida albicans* ATCC 10231;
(Left – darkness condition; right – light condition).

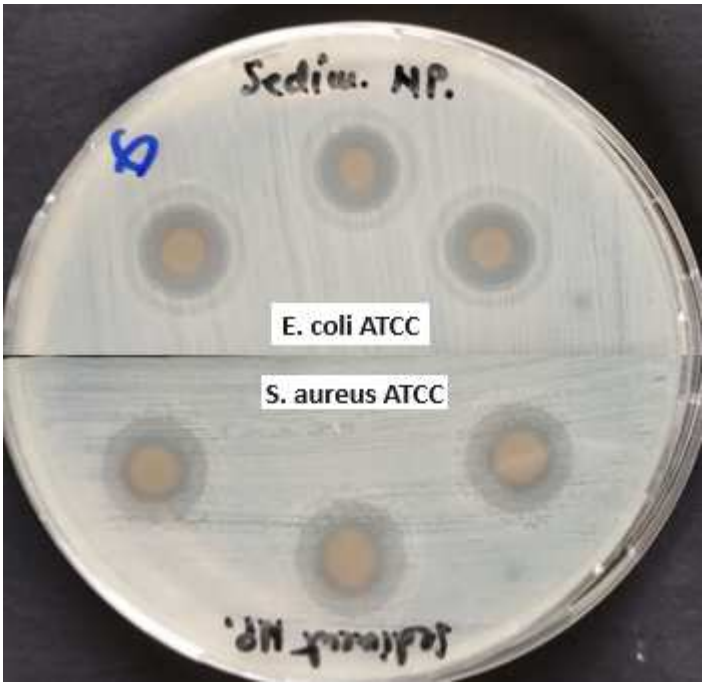


Figure S9. Growth inhibition zone diameters obtained in dark after placing theAgNPsi sample spot on solid medium streaked with microbial inoculum of *Escherichia coli* ATCC 25922 and *Staphylococcus aureus* ATCC 25923