

## Supplementary Information

**Table S1.** Effect of Selenium Nanoparticles on developmental stages of *Aedes aegypti* at 24hr exposure.

S. No.	Larval Stages	Larvae Introduced	Mortality/Concentration (Mg/L)			LC <sub>50</sub>	LC <sub>90</sub>	X <sup>2</sup>	
			Control	10 ppm/uL	50 ppm/uL				100 ppm/uL
1.	I instar	100	0 ± 0	54.66 ± 2.30	69.33 ± 2.30	80.00 ± 0.00	7.20	532.32	0.49
2.	II instar	100	0 ± 0	48.00 ± 4.00	56.00 ± 4.00	66.66 ± 2.30	14.78	14238.62	0.58
3.	III instar	100	0 ± 0	37.33 ± 2.30	45.33 ± 2.30	54.66 ± 2.30	72.10	98187.29	0.36
4.	IV instar	100	0 ± 0	28.00 ± 4.00	41.33 ± 2.30	49.33 ± 2.30	113.41	22236.38	0.04
5.	Pupa	100	0 ± 0	20.00 ± 4.00	28.00 ± 4.00	38.66 ± 2.30	440.99	1.16	0.59

**Table S2.** Effect of Selenium Nanoparticles on developmental stages of *C. quinquefasciatus* at 24hrs exposure.

S. No.	Larval Stages	Larvae Introduced	Mortality/Concentration (Mg/L)			LC <sub>50</sub>	LC <sub>90</sub>	X <sup>2</sup>	
			Control	10 ppm/uL	50 ppm/uL				100 ppm/uL
1.	I instar	100	0 ± 0	77.33 ± 2.30	88.00 ± 0.00	100.00 ± 0.00	2.53	32.75	7.93
2.	II instar	100	0 ± 0	65.33 ± 2.30	77.33 ± 4.61	89.33 ± 4.61	3.33	166.67	1.66
3.	III instar	100	0 ± 0	54.66 ± 0.00	64.00 ± 2.30	81.33 ± 0.00	7.95	642.53	3.20
4.	IV instar	100	0 ± 0	45.33 ± 4.61	57.33 ± 2.30	70.66 ± 2.30	17.30	2092.11	0.98
5.	Pupa	100	0 ± 0	30.66 ± 6.11	45.33 ± 4.61	70.66 ± 2.30	39.88	867.59	4.60

**Table S3.** Antibacterial effect of Selenium nanoparticles against *Staphylococcus aureus* and *Serratia marcescens*.

S. No.	Organism	Zone of Inhibition (mm)					
		Concentration µg/mL	Control	25 µL	50 µL	75 µL	100 µL
1.	<i>Staphylococcus aureus</i>		0.0 mm	0.50 mm	0.63 mm	0.75 mm	1.03 mm
2.	<i>Serratia marcescens</i>		0.0 m	0.47 mm	0.66 mm	0.76 mm	1.08 mm