Supplementary Data

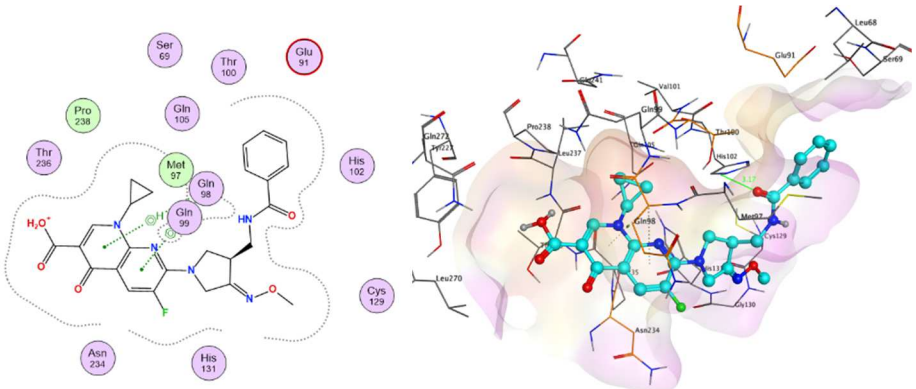
Table S1: *In-vitro* microbiological activities of derivatives against the selected gram positive, gram negatives and fungal species at concentrations 5, 10 and 20 µgmL^{-1}

rgasm	*P. mirabilis*			*S. typhi*			*E. coli*			*P. aeruginosa*		
onc.	5 µgmL^{-1}	10 µgmL^{-1}	20 µgmL^{-1}	5 µgmL^{-1}	10 µgmL^{-1}	20 µgmL^{-1}	5 µgmL^{-1}	10 µgmL^{-1}	20 µgmL^{-1}	5 µgmL^{-1}	10 µgmL^{-1}	20 µgmL^{-1}
MF	15.37±0.13	16.15±0.02	20.37±0.15	12.29±0.11	14.32±0.17	17.23±0.15	15.14±0.08	17.2±0.15	20.18±0.2	16.39±0.13	20.09±0.06	25.32±0.18
-	7.32±0.14	10.17±0.12	13.35±0.1	7.27±0.18	10.23±0.14	12.36±0.04	10.36±0.15	13.27±0.06	15.13±0.17	5.11±0.11	12.12±0.10	14.32±0.21
08	*52.37	*37.03	*34.46	*40.85	*28.56	*28.26	*31.57	*22.85	*25.02	*68.82	*39.67	*43.44
-	8.42±0.05	10.21±0.16	12.26±0.2	7.34±0.11	10.33±0.11	13.19±0.23	10.19±0.12	12.18±0.24	14.28±0.15	10.33±0.08	14.24±0.2	18.2±0.17
09	*44.64	*39.26	*39.7	*40.08	*27.56	*23.58	*33.18	*29.88	*29.66	*35.96	*29.47	*28.35
-	10.18±0.1	12.35±0.19	14.4±0.07	10.24±0.16	12.24±0.19	14.44±0.01	11.2±0.08	14.13±0.11	17.17±0.14	12.25±0.14	16.24±0.16	18.21±0.15
10	*33.07	*26.53	*29.17	*16.41	*14.17	*16.34	*26.56	*18.56	*15.42	*24.05	*19.56	*28.31
rgasm	*K. pneumonia*			*S. flexneri*			*M. luteus*			*B. subtilis*		
onc.	5µg mL^{-1}	10µg mL^{-1}	20µg mL^{-1}	5µg mL^{-1}	10µg mL^{-1}	20µg mL^{-1}	5µg mL^{-1}	10µg mL^{-1}	20µg mL^{-1}	5µg mL^{-1}	10µg mL^{-1}	20µg mL^{-1}
MF	10.32±0.23	12.4±0.04	16.1±0.07	10.3±0.22	14.33±0.23	17.16±0.23	14.27±0.19	15.27±0.13	18.31±0.09	16.22±0.21	18.12±0.09	22.28±0.22
-	10.31±0.15	15.27±0.1	20.14±0.18	7.41±0.06	11.27±0.17	13.37±0.1	10.27±0.14	12.36±0.18	14.34±0.22	5.33±0.24 *	9.3±0.02	10.3±0.12
08	0.1	*-23.15	*-25.09	*28.06	*21.35	*22.09	*28.03	*19.06	*21.68	67.14	*48.68	*53.77
-	14.2±0.21	17.28±0.2	20.38±0.14	5.29±0.17	12.26±0.16	14.33±0.11	10.26±0.03	12.31±0.11	14.36±0.11	0±0 *100	5.06±0.02	9.23±0.13
09	*-40.18	*-41.29	*-26.43	*47.78	*14.45	* 16.49	* 28.45	*19.33	*21.53		*72.47	*58.55
-	16.24±0.2	18.32±0.1	20.24±0.17	9.23±0.08	12.43±0.11	15.1±0.13	10.18±0.08	12.27±0.19	14.26±0.02	0±0 *	5.16±0.02	10.26±0.23
10	*-60.32	*-49.08	*-25.56	*8.88	*13.26	*12	*29.01	*19.59	* 22.08	100	*71.93	*53.93
rgasm	*S. features*			*S. aureus*			*Citrobacter species*			*C. albicans*		
onc.	5µg mL^{-1}	10µg mL^{-1}	20µg mL^{-1}	5µg mL^{-1}	10µg mL^{-1}	20µg mL^{-1}	5µg mL^{-1}	10µg mL^{-1}	20µg mL^{-1}	5µg mL^{-1}	10µg mL^{-1}	20µg mL^{-1}
MF	10.15±0.12	13.32±0.05	16.32±0.24	12.09±0.05	14.09±0.07	16.16±0.19	8.13±0.08	10.13±0.07	14.15±0.13	9.33±0.13	12.24±0.18	15.36±0.1
-	9.19±0.07	11.3±0.11	14.31±0.23	7.34±0.07	10.21±0.14	12.16±0.08	13.25±0.2	15.24±0.18	17.19±0.09	10.32±0.15	12.21±0.14 -	14.14±0.05
08	*9.46	*90.24	*12.32	*39.29	*27.54	*24.75	*-59.25	*-48.39	*-21.31	* -10.61	0.33	*6.85
-	10.29±0.14	13.32±0.27	16.18±0.26	9.09±0.13	12.25±0.16	15.1±0.02	13.25±0.2	15.24±0.18	17.19±0.09	10.32±0.15	12.21±0.14	14.14±0.05
09	*-.29	* -0.45	0.86	*26.58	*13.61	* 6.91	* -59.25	* -48.39	* -21.31	* -10.61	-0.33	*6.85
-	12.27±0.15	14.13±0.06	16.18±0.22	10.28±0.12	13.37±0.13	16.2±0.06	15.23±0.14	17.22±0.14	19.19±0.25	12.08±0.02	14.16±0.15 *-	16.2±0.12
10	*-9.59	* -6.59	0.86	*16.96	*5.71	*0.12	*-83.5	*-67.67	* -35.43	* -29.47	16.35	* -6.72

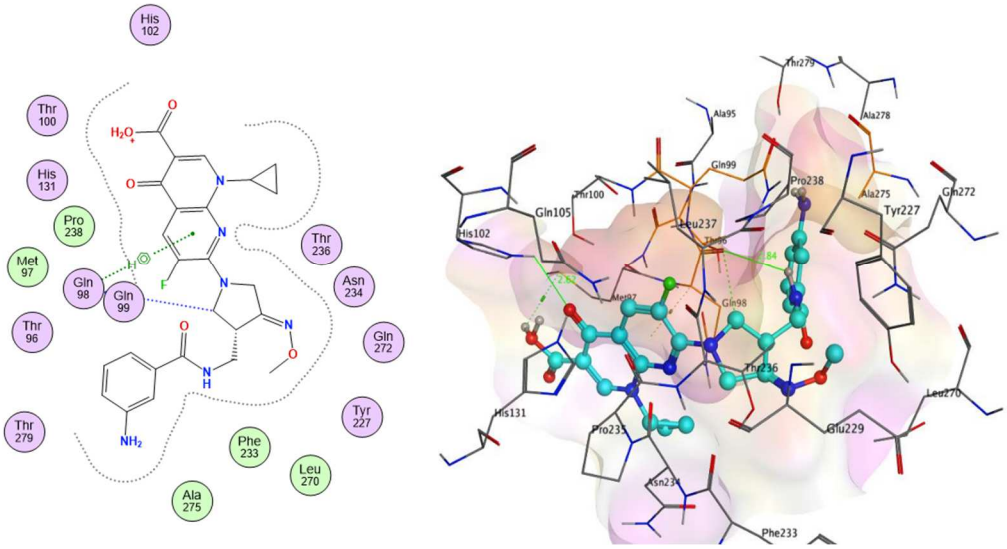
Student' s t-test (P<0.001), df = 4.

mean±S.D, % ZI * indicates significance and -ve sign shows increase in activity.

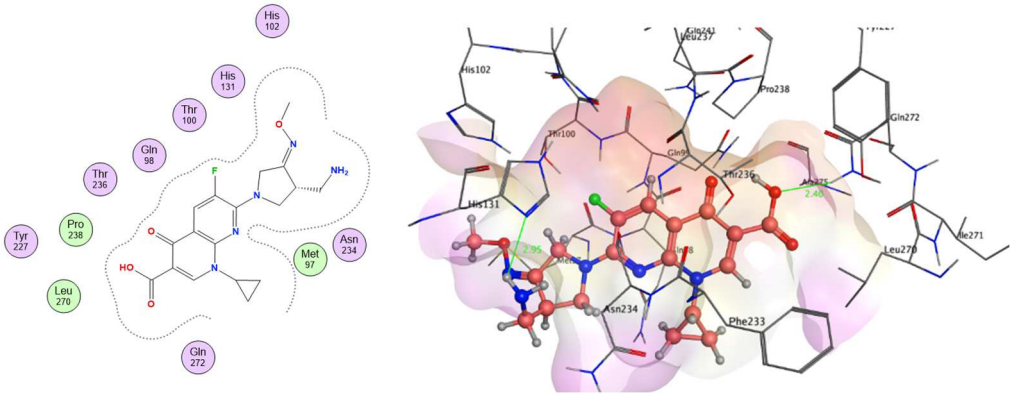
Fig S1: *Synthesized Derivatives with 6k63*



2D and 3D pic of G-D09 with 6k63

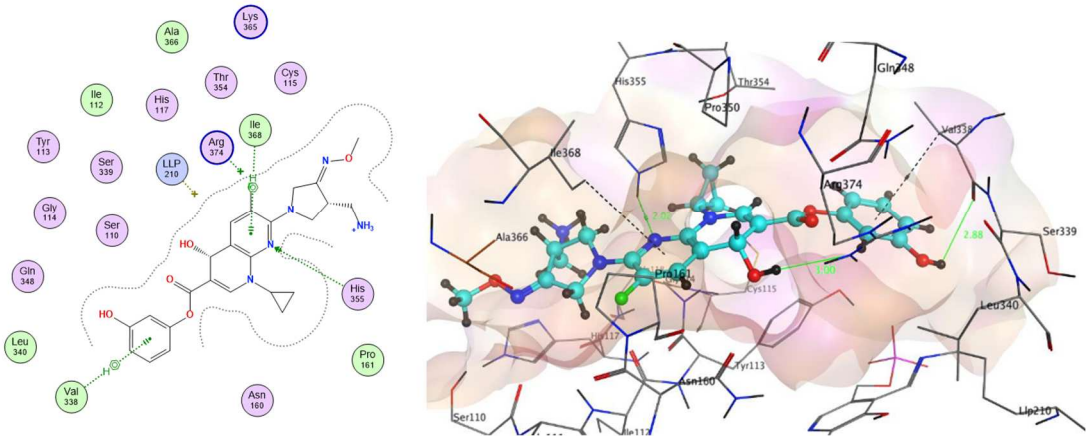


2D and 3D pic of G-D10 with 6k63

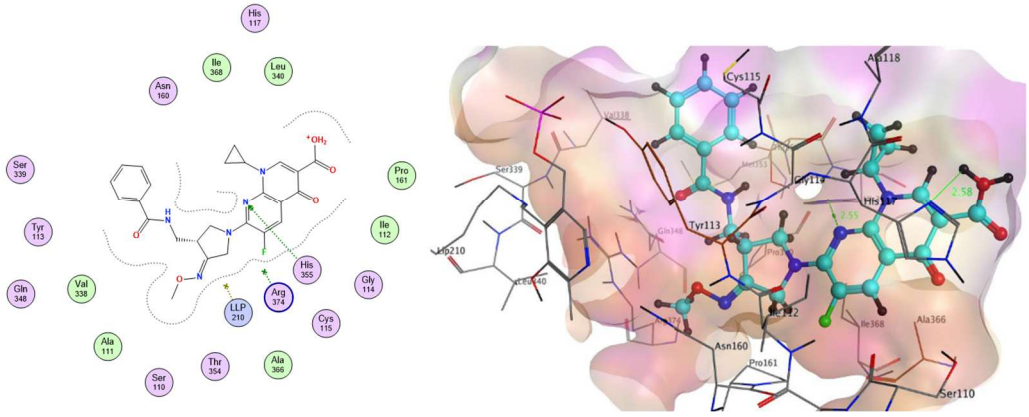


2D and 3D pic of Gemifloxacin (GMFX) with 6k63

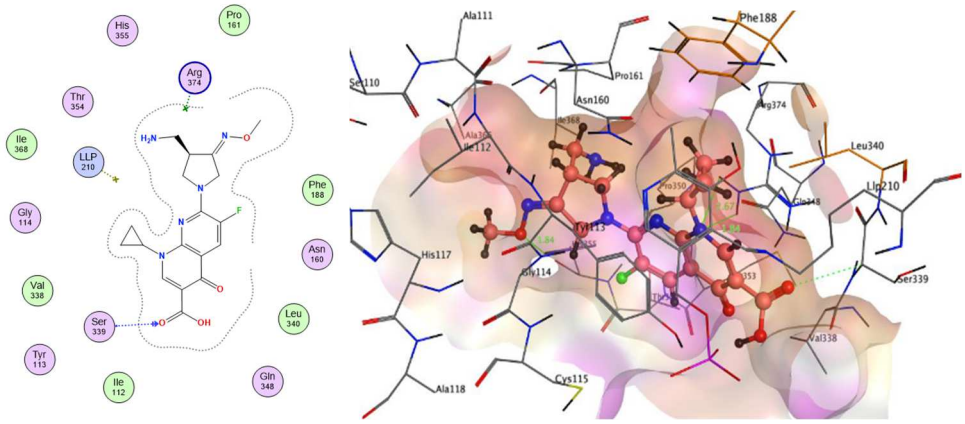
Fig S2: *Synthesized Derivatives with 3JWB*



2D and 3D pic of G-D08 with 3JWB

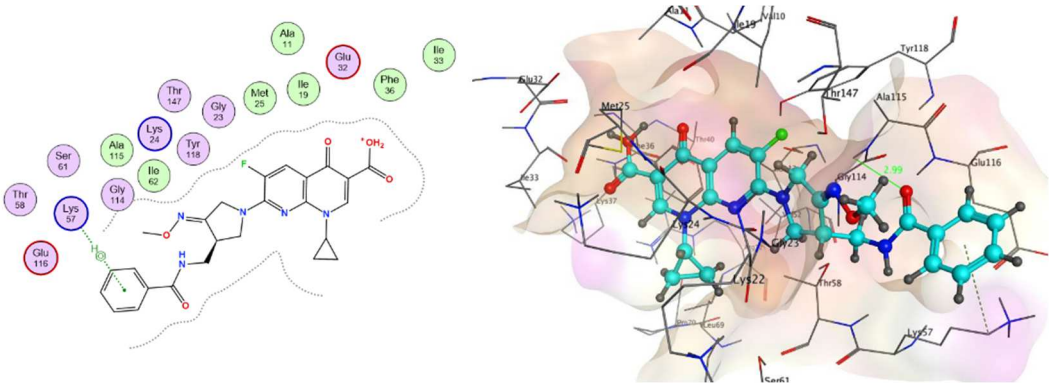


2D and 3D pic of G-D09 with 3JWB

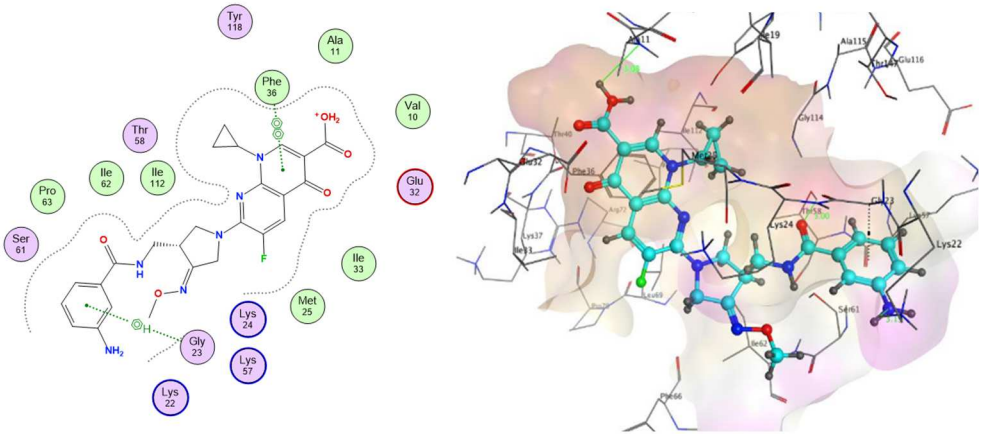


2D and 3D pic of Gemifloxacin (GMFX) with 3JWB

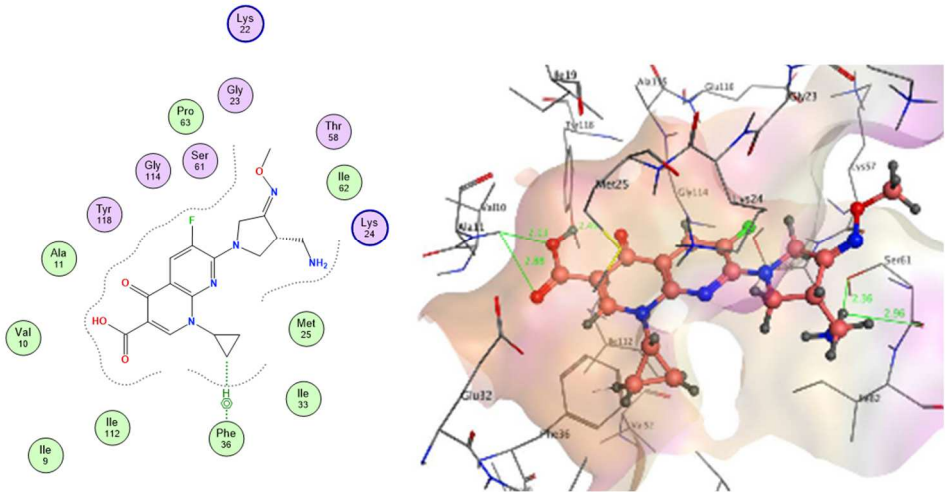
Fig S3: *Synthesized derivatives with* 1AI9



2D and 3D pic of G-D09 with 1AI9



2D and 3D pic of G-D10 with 1AI9



2D and 3D pic of Gemifloxacin (GMFX) with 1AI9