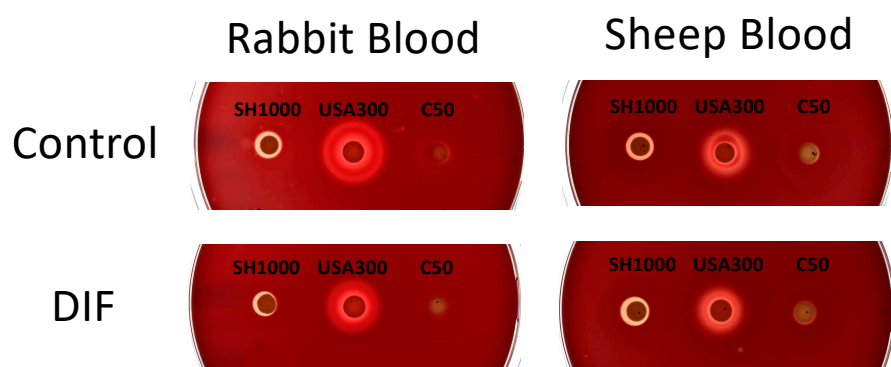


Supplemental Figure S1. DIF and structural analogues do not impact growth in *S. aureus* strains. Strains were grown in tryptic soy broth with or without DIF or analogues. Cultures were measure every hour to measure growth.



Supplemental Figure S2. Hemolysis assays performed on rabbit vs. sheep blood agar showed similar reductions when treated with DIF.

		<i>S. aureus</i> Strain							
		MSSA	COL	LAC	MW2	Mu3	Mu50	C15	C16
Hydroxy Phenyl BZA	OHPB1	0.975	0.529	0.691	0.109	0.688	0.862	0.084	0.481
	OHPB2	0.079	0.427	0.177	0.059	0.375	0.598	0.018	0.420
Fluorophenyl BA	FPB1	0.252	0.627	0.223	0.137	0.067	0.240	0.047	0.051
	dFPB1	0.119	0.037	0.963	0.679	0.082	0.295	0.658	0.039
Difluorophenyl BZA	dFPB2	0.085	0.447	0.867	0.162	0.156	0.289	0.459	0.451
	dFPB3	0.013	0.129	0.013	0.088	0.008	0.021	0.011	0.001
	dFPB4	0.225	0.166	0.343	0.236	0.520	0.912	0.070	0.585
	dFPB5	0.128	0.384	0.071	0.034	0.020	0.050	0.011	0.021
	dFPB6	0.008	0.442	0.013	0.003	0.016	0.025	0.014	0.069
Difluorophenyl Phenol	dFPP1	0.685	0.689	0.021	0.765	0.173	0.361	0.188	0.731
	dFPP2	0.084	0.308	0.073	0.370	0.884	0.537	0.170	0.654
Dichlorophenyl BZA	dCPB1	0.213	0.189	0.074	0.273	0.163	0.052	0.028	0.050
	dCPB2	0.089	0.050	0.006	0.059	0.015	0.028	0.008	0.003
	dCPB3	0.465	0.089	0.452	0.459	0.378	0.463	0.175	0.934
	dCPB4	0.255	0.142	0.012	0.612	0.198	0.049	0.021	0.001
	dCPB5	0.481	0.607	0.995	0.104	0.790	0.926	0.393	0.393
	dCPB6	0.013	0.070	0.873	0.091	0.997	0.826	0.553	0.996
	dCPB7	0.004	0.710	0.238	0.093	0.840	0.653	0.746	0.733
BZA	BZA	0.005	0.404	0.290	0.038	0.102	0.372	0.041	0.188
Dichloro BZA	dCB1	0.018	0.459	0.275	0.067	0.451	0.897	0.124	0.426
	dCB2	0.071	0.367	0.323	0.042	0.734	0.681	0.038	0.412
	dCB3	0.004	0.260	0.352	0.004	0.544	0.469	0.006	0.346
Difluoro BZA	dFB1	0.038	0.427	0.264	0.068	0.541	0.406	0.051	0.221
	dFB2	0.009	0.353	0.084	0.055	0.210	0.848	0.059	0.141
	dFB3	0.032	0.394	0.092	0.040	0.235	0.708	0.043	0.232
Chlorofluoro BZA	CFB	0.027	0.405	0.085	0.057	0.172	0.246	0.066	0.068

Hemolysis P-values: DIF vs. Analogues

Supplemental Table S1. Student's t-test P-values reveal compounds that perform significantly better than DIF. P-values of DIF vs. structural analogues in hemolysis (A), proteolysis (B) and biofilm (C) assays were calculated for significantly different impacts. Values highlighted in green indicate significantly decreased ($P < 0.05$) virulence phenotypes as compared to DIF, whereas values highlighted in red indicate significantly increased ($P < 0.05$) virulence phenotypes.

		<i>S. aureus</i> Strain								
			MSSA	COL	LAC	MW2	Mu3	Mu50	C15	C16
Hydroxy Phenyl BZA	OHPB1	1.000	1.000	0.316	1.000	1.000	0.184	0.423	0.423	
	OHPB2	1.000	1.000	1.000	1.000	1.000	0.349	1.000	1.000	
Fluorophenyl BA	FPB1	0.270	0.000	0.005	0.038	0.085	0.028	0.009	0.001	
	dFPB1	0.363	0.001	0.003	0.001	1.000	0.276	0.000	0.001	
Difluorophenyl BZA	dFPB2	0.159	0.029	0.006	0.014	0.003	0.049	0.001	0.002	
	dFPB3	0.058	0.003	0.000	0.000	0.000	0.009	0.000	0.000	
	dFPB4	1.000	0.001	0.000	0.000	0.138	0.127	0.068	0.008	
	dFPB5	0.363	0.004	0.000	0.001	0.046	0.090	0.017	0.076	
	dFPB6	0.321	0.003	0.000	0.003	0.007	0.042	0.002	0.001	
Difluorophenyl Phenol	dFPP1	0.229	0.001	0.000	0.003	0.002	0.030	0.001	0.004	
	dFPP2	0.271	0.002	0.000	0.001	0.001	0.013	0.001	0.008	
Dichlorophenyl BZA	dCPB1	0.363	0.005	0.001	0.106	1.000	0.079	0.001	0.115	
	dCPB2	1.000	0.363	0.219	1.000	1.000	1.000	0.258	0.363	
	dCPB3	1.000	1.000	0.180	0.363	1.000	1.000	1.000	1.000	
	dCPB4	1.000	0.374	0.374	1.000	1.000	0.374	0.374	1.000	
	dCPB5	1.000	0.090	0.005	0.022	1.000	1.000	0.092	0.096	
	dCPB6	1.000	0.214	0.026	0.104	1.000	0.222	0.252	0.423	
	dCPB7	1.000	0.004	0.036	0.031	1.000	1.000	0.185	0.188	
BZA	B	1.000	0.029	0.007	0.008	0.110	0.022	0.073	0.090	
Dichloro BZA	dCB1	1.000	0.050	0.018	0.023	0.211	0.045	0.067	0.091	
	dCB2	1.000	0.006	0.009	0.041	0.233	0.030	0.066	0.092	
	dCB3	1.000	0.050	0.005	0.012	0.117	0.009	0.068	0.156	
Difluoro BZA	dFB1	1.000	0.056	0.005	0.006	0.142	0.059	0.122	0.143	
	dFB2	1.000	0.034	0.002	0.011	0.169	0.002	0.054	0.077	
	dFB3	1.000	0.032	0.004	0.005	0.110	0.003	0.018	0.040	
Chlorofluoro BZA	CFB	1.000	0.012	0.014	0.015	0.158	0.008	0.045	0.073	

Proteolysis P-values: DIF vs. Analogues

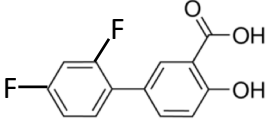
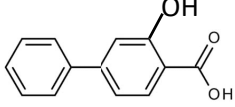
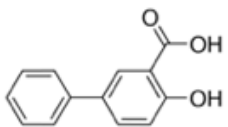
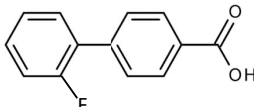
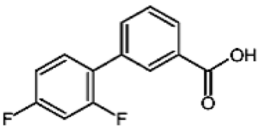
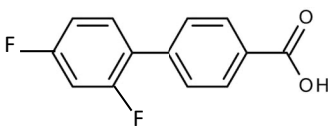
Supplemental Table S2. Student's t-test P-values reveal compounds that perform significantly better than DIF. P-values of DIF vs. structural analogues in hemolysis (A), proteolysis (B) and biofilm (C) assays were calculated for significantly different impacts. Values highlighted in green indicate significantly decreased ($P < 0.05$) virulence phenotypes as compared to DIF, whereas values highlighted in red indicate significantly increased ($P < 0.05$) virulence phenotypes.

		<i>S. aureus</i> Strain							
		MSSA	COL	LAC	MW2	Mu3	Mu50	C15	C16
Hydroxy Phenyl BZA	OHPB1	0.127	0.022	0.051	0.001	0.649	0.419	0.402	0.022
	OHPB2	0.014	0.017	0.081	0.005	0.317	0.136	0.160	0.055
Fluorophenyl BA	FPB1	0.257	0.053	0.010	0.025	0.011	0.015	0.064	0.111
	dFPB1	0.110	0.043	0.042	0.019	0.081	0.045	0.016	0.050
Difluorophenyl BZA	dFPB2	0.114	0.011	0.001	0.077	0.039	0.018	0.137	0.124
	dFPB3	0.053	0.016	0.098	0.061	0.078	0.003	0.011	0.083
	dFPB4	0.222	0.043	0.018	0.232	0.069	0.047	0.099	0.085
	dFPB5	0.100	0.001	0.148	0.099	0.012	0.021	0.032	0.028
Difluorophenyl Phenol	dFPB6	0.101	0.030	0.082	0.011	0.052	0.007	0.127	0.199
	dFPP1	0.121	0.009	0.128	0.059	0.291	0.018	0.518	0.674
Dichlorophenyl BZA	dFPP2	0.032	0.012	0.180	0.019	0.112	0.094	0.101	0.018
	dCPB1	0.092	0.053	0.093	0.356	0.479	0.000	0.575	0.293
	dCPB2	0.032	0.133	0.005	0.024	0.218	0.705	0.471	0.005
	dCPB3	0.392	0.069	0.696	0.053	0.552	0.003	0.092	0.112
	dCPB4	0.130	0.150	0.140	0.888	0.062	0.051	0.439	0.100
	dCPB5	0.002	0.014	0.035	0.003	0.482	0.655	0.922	0.045
	dCPB6	0.012	0.056	0.112	0.000	0.435	0.611	0.652	0.025
BZA	dCPB7	0.078	0.002	0.085	0.002	0.955	0.270	0.307	0.203
	BZA	0.037	0.037	0.045	0.001	0.467	0.026	0.220	0.062
Dichloro BZA	dCB1	0.065	0.022	0.074	0.007	0.430	0.045	0.164	0.027
	dCB2	0.032	0.017	0.132	0.011	0.613	0.236	0.448	0.033
	dCB3	0.074	0.007	0.040	0.005	0.318	0.145	0.146	0.034
Difluoro BZA	dFB1	0.063	0.005	0.049	0.007	0.304	0.083	0.312	0.013
	dFB2	0.065	0.029	0.081	0.004	0.350	0.017	0.190	0.051
	dFB3	0.279	0.013	0.050	0.001	0.306	0.060	0.176	0.004
Chlorofluoro BZA	CFB	0.064	0.016	0.056	0.004	0.168	0.088	0.183	0.010

Biofilm P-values: DIF vs. Analogues

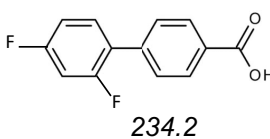
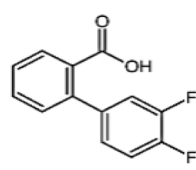
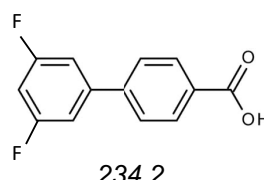
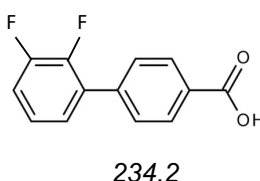
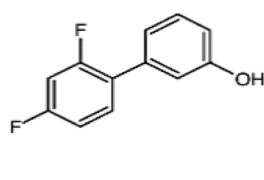
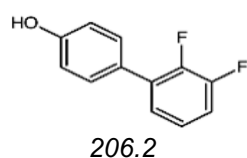
Supplemental Table S3. Student's t-test P-values reveal compounds that perform significantly better than DIF. P-values of DIF vs. structural analogues in hemolysis (A), proteolysis (B) and biofilm (C) assays were calculated for significantly different impacts. Values highlighted in green indicate significantly decreased ($P < 0.05$) virulence phenotypes as compared to DIF, whereas values highlighted in red indicate significantly increased ($P < 0.05$) virulence phenotypes.

Chan et al. Supplemental Table S4A – DIF and structural analogues differentially mitigate virulence in *S. aureus*

Compound Name	Structure & M.W.	% Hemolysis (H) / Proteolysis (P) / Biofilm (B) vs. Control (SD)								
			MSSA	COL	LAC	MW2	Mu3	Mu50	C15	C16
Diflunisal 2-hydroxy-5-(2,4-difluorophenyl) benzoic acid	 250.2	H	41.6 [27.8]	66.9 [35.8]	86.2 [18.7]	65.7 [25.0]	87.6 [23.3]	81.0 [36.7]	73.4 [18.7]	81.9 [27.8]
		P	0.0 [0]	0.0 [0]	0.0 [0]	0.0 [0]	0.0 [0]	0.0 [0]	0.0 [0]	0.0 [0]
		B	64.4 [20.4]	46.3 [2.9]	17.3 [9.5]	8.9 [2.6]	63.0 [33.8]	72.9 [7.1]	65.1 [3.4]	45.1 [14.7]
OHPB1 2-Hydroxy-4-phenylbenzoic acid	 214.2	H	37.7 [56.5]	89.6 [0.2]	89.5 [19.0]	170.9 [66.5]	89.0 [43.4]	84.2 [27.1]	93.2 [15.7]	100.0 [28.3]
		P	0.0 [0]	0.0 [0]	15.5 [20.3]	0.0 [0]	0.0 [0]	3.3 [2.9]	12.7 [22.0]	8.1 [14.1]
		B	79.8 [11.9]	84.9 [10.7]	99.4 [47.6]	81.2 [17.3]	85.3 [20.8]	73.7 [23.0]	73.7 [27.0]	99.1 [14.9]
OHPB2 2-Hydroxy-5-phenylbenzoic acid	 214.2	H	135.4 [26.3]	103.2 [0.5]	102.1 [13.9]	203.8 [71.4]	107.0 [43.7]	91.4 [20.4]	95.5 [16.0]	96.5 [20.5]
		P	0.0 [0]	0.0 [0]	0.0 [0]	0.0 [0]	0.0 [0]	3.0 [4.3]	0.0 [0]	0.0 [0]
		B	293.2 [59.0]	106.9 [10.1]	75.8 [31.7]	86.6 [15.5]	97.6 [14.4]	92.0 [15.9]	91.1 [15.9]	106.4 [27.4]
FPB1 4-(2-fluorophenyl) benzoic acid	 216.2	H	56.5 [32.3]	76.8 [41.0]	106.9 [26.5]	127.2 [92.1]	114.1 [33.7]	101.2 [44.6]	110.4 [24.4]	110.5 [29.3]
		P	316.9 [627]	230.0 [48.5]	148.5 [77.2]	208.0 [182]	41.3 [47.3]	126.0 [101]	144.3 [85.6]	104.7 [40.2]
		B	85.9 [30.8]	54.6 [6.3]	27.8 [11.3]	19.0 [2.8]	102.1 [40.6]	92.3 [6.0]	77.9 [4.2]	76.4 [18.0]
dFPB1 3-(2,4-difluorophenyl) benzoic acid	 234.2	H	55.9 [27.7]	53.8 [32.0]	85.9 [16.4]	63.2 [24.1]	79.7 [24.8]	71.3 [37.7]	77.9 [15.9]	71.8 [27.5]
		P	37.4 [91.5]	147.5 [48.5]	109.0 [49.3]	126.0 [42.3]	0.0 [0]	116.7 [234]	119.1 [27.1]	121.3 [38.6]
		B	78.0 [18.6]	53.3 [2.9]	24.2 [11.1]	25.9 [6.6]	101.9 [53.5]	103.1 [7.8]	100.9 [10.8]	95.7 [28.2]
dFPB2 4-(2,4-difluorophenyl) benzoic acid	 234.2	H	74.4 [46.5]	50.3 [45.5]	85.0 [14.6]	79.9 [21.9]	64.4 [26.3]	67.2 [38.4]	83.3 [29.7]	74.8 [30.7]
		P	159.5 [236]	142.9 [115]	131.4 [71.2]	122.2 [81.2]	58.5 [27.6]	186.9 [178]	117.3 [41.6]	121.9 [51.4]
		B	74.8 [20.3]	72.6 [7.6]	48.1 [8.3]	26.2 [11.2]	106.1 [45.1]	98.0 [6.9]	101.6 [24.0]	84.2 [25.9]

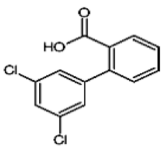
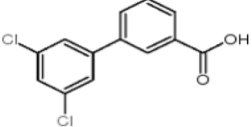
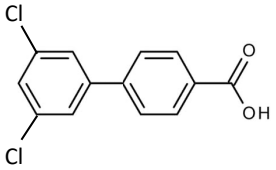
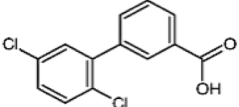
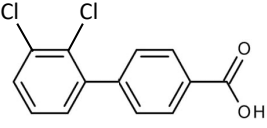
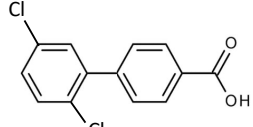
Supplemental Table S4. Hemolysis (H), proteolysis (P) and biofilm (B) for DIF and structural analogues are represented as percent of control. Mean values and standard deviation (SD) for DIF and each analogues are shown for DIF and each structural analogue. Values of structural analogues that significantly ($P < 0.05$; student's t-test) differed from DIF are indicated in bold font.

Chan et al. Supplemental Table S4B – DIF and structural analogues differentially mitigate virulence in *S. aureus*

Compound Name	Structure & M.W.	% Hemolysis (H) / Proteolysis (P) vs. Control (St. Dev.)								
			MSSA	COL	LAC	MW2	Mu3	Mu50	C15	C16
dFPB3 2-(2,4-difluorophenyl) benzoic acid	 234.2	H	77.2 [27.5]	108.9 [37.7]	105.1 [15.4]	165.6 [142]	121.0 [39.1]	122.1 [68.7]	105.2 [14.7]	112.1 [35.0]
		P	137.0 [137]	114.8 [51.2]	97.8 [19.0]	70.2 [17.6]	84.3 [22.1]	193.8 [115]	120.0 [26.2]	123.8 [37.8]
		B	89.1 [23.8]	83.4 [10.2]	91.2 [52.1]	101.6 [43.7]	145.5 [76.2]	120.7 [11.7]	142.8 [12.2]	102.3 [32.0]
dFPB4 4-(3,5-difluorophenyl) benzoic acid	 234.2	H	60.7 [37.1]	86.8 [40.4]	94.5 [12.1]	60.9 [22.7]	82.6 [35.5]	79.8 [50.7]	92.6 [25.1]	87.8 [44.8]
		P	0.0 [0.0]	257.5 [92.9]	131.0 [31.5]	147.4 [42.6]	18.9 [26.2]	126.9 [170]	177.3 [187]	83.7 [48.6]
		B	86.3 [38.4]	59.3 [2.0]	28.5 [10.4]	14.6 [7.9]	89.3 [43.7]	87.0 [7.6]	89.4 [16.5]	75.2 [17.3]
dFPB5 4-(2,3-difluorophenyl) benzoic acid	 234.2	H	66.1 [40.2]	82.2 [44.5]	109.6 [17.2]	88.2 [36]	126.5 [34.9]	106.5 [49.5]	104.5 [5.5]	104.1 [33.9]
		P	120.1 [294]	236.7 [115]	132.4 [27.8]	172.9 [56.5]	41.8 [38.7]	157.9 [184]	157.8 [109]	199.4 [219]
		B	90.4 [10.7]	64.7 [3.3]	37.8 [19.2]	19.6 [8.8]	132.5 [41.8]	101.5 [2.3]	108.1 [16.2]	89.1 [17.1]
dFPB6 4-(2,6-difluorophenyl) benzoic acid	 234.2	H	102.8 [40.7]	79.6 [38.6]	126.0 [19.4]	145.9 [52.8]	142.1 [49.6]	118.0 [46.7]	114.3 [19.4]	127.7 [59.7]
		P	417.1 [929]	213.5 [96.6]	134.3 [31.0]	185.1 [86.4]	72.0 [40.2]	223.9 [202]	134.0 [57.7]	107.2 [39.6]
		B	92.1 [32.6]	76.6 [6.8]	75.2 [40.2]	34.7 [3.3]	128.3 [60.5]	100.8 [9.4]	78.2 [5.7]	62.6 [11.1]
dFPP1 3-(2,4-difluorophenyl) phenol	 206.2	H	48.0 [46.3]	57.3 [48.9]	110.5 [23.3]	70.2 [48.9]	105.8 [45.3]	104.1 [62.6]	90.3 [27.0]	89.1 [50.0]
		P	93.2 [166]	125.5 [48.3]	126.8 [23.7]	78.7 [34.6]	71.6 [28.2]	205.3 [167]	100.3 [35.5]	79.7 [39.3]
		B	48.8 [14.4]	65.0 [3.0]	45.7 [28.4]	11.5 [2.5]	58.8 [31.1]	87.5 [5.4]	70.6 [10.0]	43.8 [13.0]
dFPP2 3-(2,3-difluorophenyl) phenol	 206.2	H	64.2 [29.2]	45.6 [37.1]	102.0 [15.2]	76.1 [37.7]	90.0 [48.9]	90.5 [57.1]	88.6 [19.9]	77.2 [42.8]
		P	101.4 [201]	124.6 [51.3]	109.2 [24.3]	65.5 [22.0]	74.1 [23.2]	169.7 [111]	92.1 [28.3]	74.2 [42.6]
		B	8.3 [3.0]	102.3 [13.5]	26.3 [17.2]	18.2 [4.4]	108.4 [61.7]	150.4 [51.3]	53.4 [9.2]	51.3 [13.8]

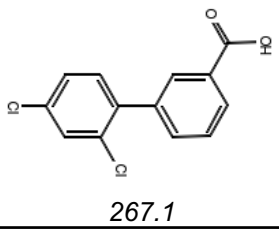
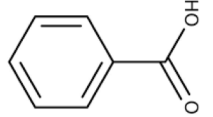
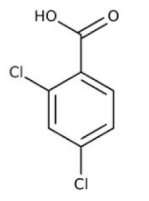
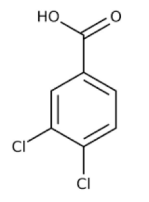
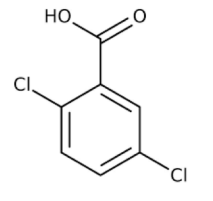
Supplemental Table S4. Hemolysis (H), proteolysis (P) and biofilm (B) for DIF and structural analogues are represented as percent of control. Mean values and standard deviation (SD) for DIF and each analogues are shown for DIF and each structural analogue. Values of structural analogues that significantly ($P < 0.05$; student's t-test) differed from DIF are indicated in bold font.

Chan et al. Supplemental Table S4C – DIF and structural analogues differentially mitigate virulence in *S. aureus*

Compound Name	Structure & M.W.	% Hemolysis (H) / Proteolysis (P) vs. Control (St. Dev.)								
			MSSA	COL	LAC	MW2	Mu3	Mu50	C15	C16
dCPB1 2-(3,5-dichlorophenyl) benzoic acid	 267.1	H	59.7 [41.6]	94.4 [42.4]	107.2 [29.2]	81.4 [37.9]	108.9 [56.8]	117.2 [72.1]	108.6 [28.4]	112.0 [51.8]
		P	305.6 [749]	59.7 [30.2]	72.2 [26.5]	22.1 [27.6]	0.0 [0.0]	30.4 [33.8]	83.2 [32.4]	27.0 [34.7]
		B	95.6 [25.8]	55.6 [3.0]	63.3 [32.5]	9.5 [2.8]	56.9 [21.7]	89.8 [7.4]	69.4 [8.9]	75.9 [34.9]
dCPB2 3-(3,5-dichlorophenyl) benzoic acid	 267.1	H	19.1 [21.2]	27.4 [28.7]	58.2 [21.4]	45.8 [28.8]	51.2 [23.4]	46.6 [20.1]	54.7 [10.5]	56.4 [37.8]
		P	0.0 [0.0]	3.2 [7.8]	12.2 [21.3]	0.0 [0.0]	0.0 [0.0]	0.0 [0.0]	10.1 [19.4]	2.0 [4.8]
		B	3.6 [1.2]	44.5 [4.0]	30.6 [10.8]	6.0 [2.3]	48.7 [19.8]	74.0 [8.6]	61.1 [4.4]	36.1 [14.7]
dCPB3 4-(3,5-dichlorophenyl) benzoic acid	 267.1	H	50.2 [25.7]	44.4 [25.5]	96.1 [24.9]	57.2 [32.5]	79.6 [37.7]	71.4 [47.0]	83.5 [18.7]	82.7 [40.9]
		P	0.0 [0.0]	0.0 [0.0]	8.9 [14.1]	6.0 [14.6]	0.0 [0.0]	0.0 [0.0]	0.0 [0.0]	0.0 [0.0]
		B	55.8 [20.4]	49.2 [4.0]	16.4 [6.2]	7.4 [2.4]	57.7 [21.0]	82.0 [7.5]	48.5 [7.3]	39.4 [15.2]
dCPB4 3-(2,5-dichlorophenyl) benzoic acid	 267.1	H	29.2 [22.7]	35.8 [24.3]	69.1 [10.4]	59.5 [40.0]	63.7 [28.5]	48.8 [29.2]	56.5 [6.5]	51.3 [18.5]
		P	0.0 [0.0]	20.5 [45.7]	8.1 [18.2]	0.0 [0.0]	0.0 [0.0]	0.7 [1.5]	6.5 [14.6]	0.0 [0.0]
		B	37.9 [6.8]	50.1 [1.9]	19.1 [9.0]	9.0 [3.2]	82.6 [40.3]	76.1 [7.7]	69.2 [4.5]	41.4 [11.9]
dCPB5 4-(2,3-dichlorophenyl) benzoic acid	 267.1	H	52.6 [46.6]	77.4 [7.9]	82.9 [20.7]	132.7 [39.4]	70.3 [32.7]	77.8 [22.2]	85.0 [28.7]	99.6 [21.4]
		P	0.0 [0.0]	100.1 [56.0]	86.2 [10.7]	92.8 [24.0]	0.0 [0.0]	0.0 [0.0]	20.4 [11.6]	17.1 [9.9]
		B	416.4 [52.5]	124.4 [18.7]	62.4 [17.3]	88.0 [15.1]	97.1 [26.0]	74.7 [21.2]	61.6 [15.3]	107.1 [22.7]
dCPB6 4-(2,5-dichlorophenyl) benzoic acid	 267.1	H	26.1 [37.8]	41.7 [59.0]	79.1 [35.3]	158.4 [55.7]	75.8 [34.8]	75.5 [35.6]	79.7 [28.2]	75.2 [26.3]
		P	0.0 [0.0]	24.3 [23.4]	66.8 [18.9]	52.8 [32.1]	0.0 [0.0]	12.2 [12.0]	13.9 [15.1]	2.7 [4.6]
		B	335.9 [60.7]	123.9 [36.1]	55.2 [21.9]	78.5 [18.0]	103.2 [25.7]	69.1 [15.6]	64.7 [21.8]	98.5 [15.5]

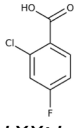
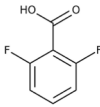
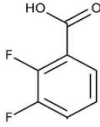
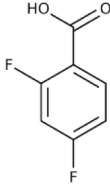
Supplemental Table S4. Hemolysis (H), proteolysis (P) and biofilm (B) for DIF and structural analogues are represented as percent of control. Mean values and standard deviation (SD) for DIF and each analogues are shown for DIF and each structural analogue. Values of structural analogues that significantly ($P < 0.05$; student's t-test) differed from DIF are indicated in bold font.

Chan et al. Supplemental Table S4D – DIF and structural analogues differentially mitigate virulence in *S. aureus*

Compound Name	Structure & M.W.	% Hemolysis (H) / Proteolysis (P) vs. Control (St. Dev.)								
			MSSA	COL	LAC	MW2	Mu3	Mu50	C15	C16
dCPB7 3-(2,4-dichlorophenyl) benzoic acid	 267.1	H	24.5 [35.3]	68.0 [13.3]	68.2 [9.6]	167.8 [71.9]	72.2 [24.2]	67.1 [29.8]	71.8 [11.8]	62.4 [35.6]
		P	0.0 [0.0]	49.6 [5.4]	39.3 [13.3]	55.4 [17.2]	0.0 [0.0]	0.0 [0.0]	22.9 [20.0]	22.5 [19.8]
		B	99.8 [13.6]	120.7 [10.6]	56.8 [19.0]	62.8 [21.6]	66.7 [12.7]	54.6 [12.2]	49.2 [13.0]	67.7 [15.6]
BZA Benzoic Acid	 122.1	H	147.3 [26.2]	127.9 [21.0]	100.0 [14.3]	168.5 [53.4]	105.1 [18.4]	90.6 [16.4]	102.3 [20.1]	114.4 [7.6]
		P	127.6 [0.0]	112.6 [34.0]	107.0 [15.5]	125.2 [19.5]	105.4 [66.2]	109.7 [28.4]	88.0 [43.7]	109.0 [60.9]
		B	129.8 [12.9]	107.8 [16.6]	89.9 [35.2]	103.8 [17.9]	95.8 [23.3]	135.0 [36.2]	109.1 [35.1]	143.3 [55.5]
dCB1 2,4-Dichlorobenzoic acid	 191.0	H	146.1 [18.4]	115.0 [20.2]	106.1 [10.5]	159.6 [40.2]	105.2 [48.0]	81.3 [11.8]	96.9 [13.0]	105.5 [30.7]
		P	44.6 [0.0]	94.6 [38.1]	96.0 [22.3]	100.8 [26.8]	51.5 [49.1]	113.7 [43.5]	86.3 [40.8]	81.2 [45.5]
		B	143.3 [33.6]	124.4 [15.0]	116.4 [62.8]	114.8 [14.8]	94.9 [17.8]	119.4 [17.7]	90.9 [23.3]	110.9 [26.9]
dCB2 3,4-Dichlorobenzoic acid	 191.0	H	143.0 [36.6]	115.2 [0.2]	102.2 [24.4]	164.9 [34.8]	90.5 [62.1]	88.0 [23.1]	94.2 [17.6]	98.8 [22.2]
		P	82.9 [0.0]	100.5 [13.8]	105.2 [17.2]	150.7 [54.6]	16.2 [16.6]	95.2 [29.2]	79.0 [36.9]	104.9 [59.5]
		B	110.2 [20.9]	83.4 [12.9]	163.1 [85.8]	104.1 [35.4]	103.8 [48.7]	117.7 [52.8]	76.7 [25.0]	127.2 [37.6]
dCB3 2,5-Dichlorobenzoic acid	 191.0	H	139.7 [25.7]	90.7 [34.0]	93.8 [23.1]	128.6 [15.3]	89.8 [36.7]	86.5 [30.4]	105.3 [13.2]	98.0 [32.4]
		P	19.1 [0.0]	136.2 [54.8]	89.4 [10.9]	115.8 [22.2]	95.8 [62.5]	135.5 [22.9]	103.8 [49.3]	118.1 [91.9]
		B	116.7 [12.5]	131.2 [14.0]	164.0 [50.6]	122.4 [26.9]	100.5 [13.3]	118.4 [33.3]	101.2 [23.0]	104.6 [20.2]

Supplemental Table S4. Hemolysis (H), proteolysis (P) and biofilm (B) for DIF and structural analogues are represented as percent of control. Mean values and standard deviation (SD) for DIF and each analogues are shown for DIF and each structural analogue. Values of structural analogues that significantly ($P < 0.05$; student's t-test) differed from DIF are indicated in bold font.

Chan et al. Supplemental Table S4E – DIF and structural analogues differentially mitigate virulence in *S. aureus*

Compound Name	Structure & M.W.	% Hemolysis (H) / Proteolysis (P) vs. Control (St. Dev.)								
			MSSA	COL	LAC	MW2	Mu3	Mu50	C15	C16
dFB1 2,6-Difluorobenzoic acid	 <i>158.1</i>	H	179.9 [32.8]	153.2 [55.5]	103.1 [18.2]	203.1 [62.8]	101.6 [57.1]	94.6 [23.2]	106.2 [25.6]	113.3 [24.4]
		P	68.6 [0.0]	117.2 [50.4]	103.6 [13.2]	106.4 [13.9]	106.6 [78.3]	99.7 [43.9]	81.1 [54.2]	99.3 [73.2]
		B	142.9 [26.6]	156.3 [41.5]	231.0 [75.2]	133.4 [13.8]	93.9 [9.7]	125.5 [36.3]	86.9 [31.7]	107.3 [16.8]
dFB2 2,3-Difluorobenzoic acid	 <i>158.1</i>	H	157.7 [24.5]	114.3 [3.3]	109.8 [13.7]	159.7 [26.2]	103.7 [22.9]	83.3 [14.2]	109.7 [27.2]	129.8 [23.2]
		P	110.9 [0.0]	118.7 [38.7]	105.1 [7.3]	111.1 [20.2]	92.6 [75.8]	114.0 [8.7]	83.6 [34.9]	107.9 [55.1]
		B	129.1 [19.3]	108.6 [18.4]	234.4 [110]	135.1 [28.2]	110.1 [36.]	137.4 [14.7]	101.9 [30.9]	121.3 [34.4]
dFB3 2,4-Difluorobenzoic acid	 <i>158.1</i>	H	150.4 [2.0]	120.5 [11.1]	110.0 [11.1]	174.1 [35.9]	116.8 [37.1]	87.0 [18.3]	101.2 [17.9]	110.1 [17.2]
		P	128.2 [0.0]	140.8 [44.5]	114.6 [12.4]	131.1 [16.6]	103.8 [65.1]	109.3 [10.4]	91.0 [21.5]	108.4 [38.5]
		B	87.9 [14.1]	143.8 [25.2]	81.1 [34.6]	106.9 [10.5]	118.8 [37.0]	125.1 [29.6]	92.2 [20.5]	125.6 [6.3]
CFB 2-Chloro-4-fluorobenzoic acid	 <i>174.6</i>	H	153.7 [32.2]	113.9 [6.7]	109.4 [14.1]	176.5 [33.7]	118.5 [33.3]	103.1 [20.9]	115.5 [29.5]	122.8 [25.5]
		P	114.8 [0.0]	109.3 [20.9]	100.2 [20.8]	120.0 [25.7]	104.5 [82.0]	130.6 [19.8]	92.8 [35.1]	110.4 [54.7]
		B	136.2 [28.0]	220.7 [54.0]	210.0 [80.4]	131.5 [16.8]	125.6 [36.0]	133.2 [39.4]	113.8 [33.7]	147.7 [21.3]

Supplemental Table S4. Hemolysis (H), proteolysis (P) and biofilm (B) for DIF and structural analogues are represented as percent of control. Mean values and standard deviation (SD) for DIF and each analogues are shown for DIF and each structural analogue. Values of structural analogues that significantly ($P < 0.05$; student's t-test) differed from DIF are indicated in bold font.