Supplementary Table 3. Candidate $\alpha5^{GGDEF}$ Helices from PA14 For Interaction with LapD.

Structural Element[a]	Sequence
P. fluorescens Pfl01 LapD $\alpha2^{EAL}$ helix	GRFLPWLER
P. aeruginosa PA14 LapD $\alpha2^{EAL}$ helix	GRFLPWIER
P. fluorescens Pfl01 GcbC $\alpha5^{GGDEF}$ helix	EQLLFAADK
P. aeruginosa PA14 DGC $\alpha5^{GGDEF}$ helices	SQTVNRADA
	GALYSRADA
	DLLLCRVDD
	RVLIEMADQ
	SVLMSQANL
	AALLHDADM
	NRAHRCADD
	EQLYSAADQ
	QTLMKYAGL
	EGLVRAADS
	DEALQRADQ
	KSMAKQADE
	GKLYKAADQ
	EVVFERADQ
	DHLMQHADA
	PTLVKNADA
	EELLKNAGL
	RGLLRCADV
	HELMINADA
	ADLLARADQ
	SELMSQADV
	EEALRSADM
	EKLLQKAEQ
	SLLMKNADT
	YDLYEHADR
	DDLLRRVDE
	ESLLVRADS
	DALYREADR

[a]Complete listing of N-terminal $\alpha5^{GGDEF}$ helices found in *P. aeruginosa* PA14 derived from proteins containing a GGDEF domain. The *P. fluorescens* and *P. aeruginosa* PA14 LapD homologs have nearly identical $\alpha2^{EAL}$ helices. The $\alpha5^{GGDEF}$ helices in *P. aeruginosa* PA14 were compared against the the same region from GcbC in an effort to determine potential interaction partners for *P. aeruginosa* PA14 LapD. The sequence highlighted in red belongs to RoeA, and was predicted to interact with *P. aeruginosa* PA14 LapD protein. The three bold sequences were dissimilar to the GcbC $\alpha5^{GGDEF}$ helix and predicted to not interact with *P. aeruginosa* PA14 LapD protein. The four highlighted sequences were tested in Figure 5B.