

Up-Regulation of Quorum Sensing Molecules for Early Electrochemical Detection of Bacterial Pathogens*

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January 30th, 2015
11:45am, 312 Ell Hall

Due to its prevalence and reputation as one of the most challenging species to treat among nosocomial infections, *Pseudomonas aeruginosa* has become an important target for biomedical sensors. One approach is to detect pyocyanin, a quorum sensing molecule linked to biofilm formation that is produced by this species. As pyocyanin is redox-active, it can be detected using electrochemical sensors. Previous research showed that *P. aeruginosa* biofilm formation can be regulated with the addition of different amino acids. To better understand this association, six amino acids were evaluated as stimulants for up-regulating pyocyanin production by *P. aeruginosa* to achieve faster detection.

*This work was supervised by Prof. Edgar D. Goluch, Department of Chemical Engineering.