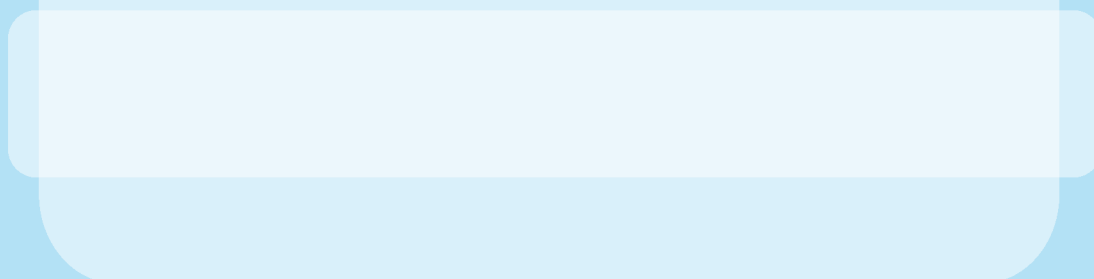


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## **PENGHAMBATAN *QUORUM SENSING* SEBAGAI ALTERNATIF TERAPI PENYAKIT INFEKSI YANG DISEBABKAN OLEH BAKTERI**

Shofyatul Yumna Triana, Farida Juliantina, Rachmawati

### **ABSTRACT**

The latest discoveries in the field of microbiology have proved that bacteria communicate each other. The process of cell to cell communication is called quorum sensing. Quorum sensing was first discovered in two luminous bacteria called *Vibrio harveyi* and *Vibrio fischeri*. These bacteria emit light in response to increase in cell population density. Density-dependent light production is accomplished through the release and detection of hormone-like molecules called autoinducers that accumulate in the environment as the bacterial density increases. Quorum sensing is believed to regulate competence in development, sporulation, virulence factor induction, sporulation and nutrient flux along with other events in pathogenic bacterial infections. Recently, many scientists have been doing research in the field of quorum sensing. If the signaling systems among the bacteria were able to be blocked, the dangerous effects from bacteria then possibly be prevented. In other words, if the quorum sensing mechanism were stopped, the disease can be prevented or even cured instead of antibiotics use.

Keyword : *bacterial infection – quorum sensing - inhibitor*