**Supplemental Methods**

**Gene expression of *lasR* genes.** PAO1 and TUH54 were grown were incubated in the presence or absence of 25% royal jelly in LB medium. After 16-h incubation, total RNA was isolated using an RNeasy Mini kit (QIAGEN, Valencia, CA, USA). Transcriptor First Strand cDNA Synthesis kit (Roche Diagnosis, Mannheim, Germany) was used for reverse transcription. qRT-PCR was performed using StepOnePlusTM Real Time PCR System with Fast SYBR® Green Master Mix (Thermo Fisher Scientific, MA, USA). The expression level of *lasR* gene was normalized to the expression of *rpsL* whose expression remained constant throughout the experiment. The threshold cycle values and data analyses were performed by StepOne™ Software v2.2 (Thermo Fisher Scientific). The results were expressed as fold-change values relative to the control samples. The sequences for qRT-PCR were as follows;

lasR-F: TTTCTGGGAACCGTCCATCT, lasR-R: GCCGAGGCTTCCTCGAA, rpsL-F: GCAACTATCAACCAGCTGGTG, rpsL-R: GCTGTGCTCTTGCAGGTTGTG.

**Supplemental Figure. Heni S. et al.**

**Relative *lasR* transcription / Control**

 control control

 25% Royal Jelly 25% Royal Jelly

TUH-54

PAO1