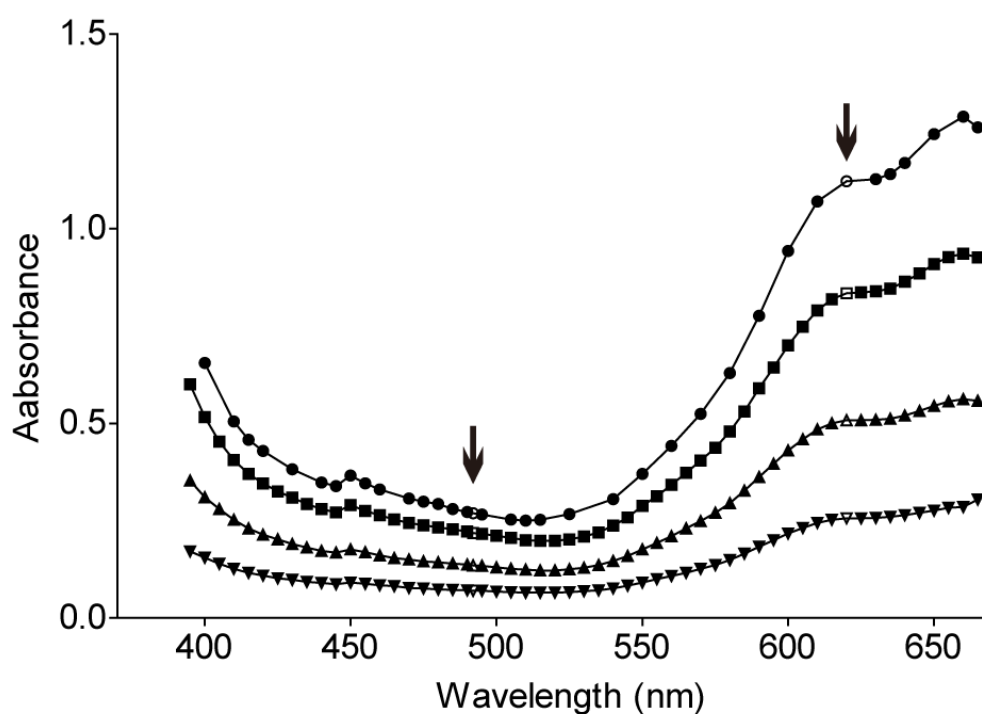
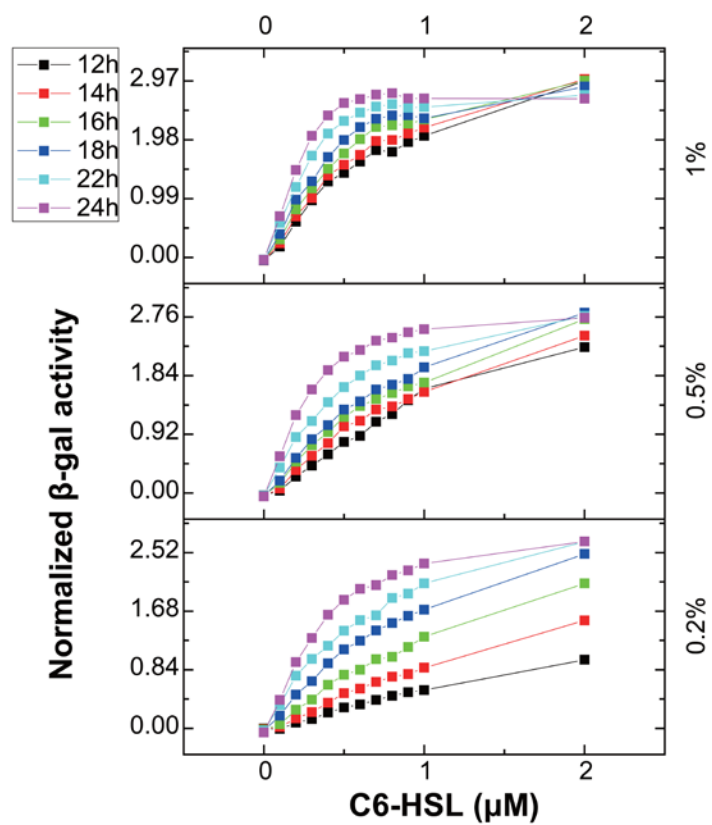


**Evaluation of a new high-throughput method for identifying quorum quenching
bacteria**

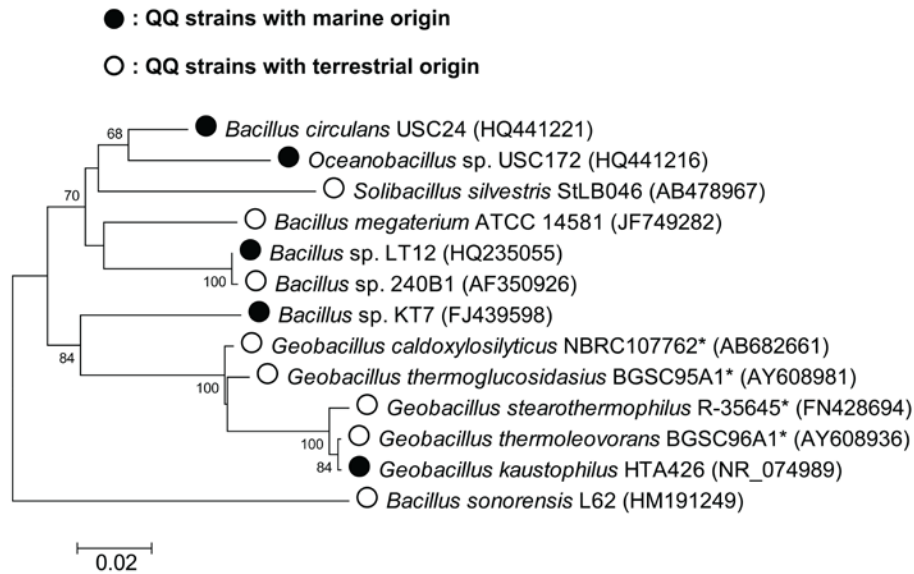
Kaihao Tang, Yunhui Zhang, Min Yu, Xiaochong Shi, Tom Coenye, Peter Bossier
and Xiao-Hua Zhang



Supplementary Figure S1. The absorbance spectra of indigo in AT minimal glucose medium between 380 and 660 nm. Four different concentrations of 5, 5'-dibromo-4, 4'-dichloro-indigo in AT minimal glucose medium were measured the absorbance at a wide range of wavelengths. Arrows showed relatively lower and higher absorbance at the wavelengths 492 nm and 630 nm respectively.

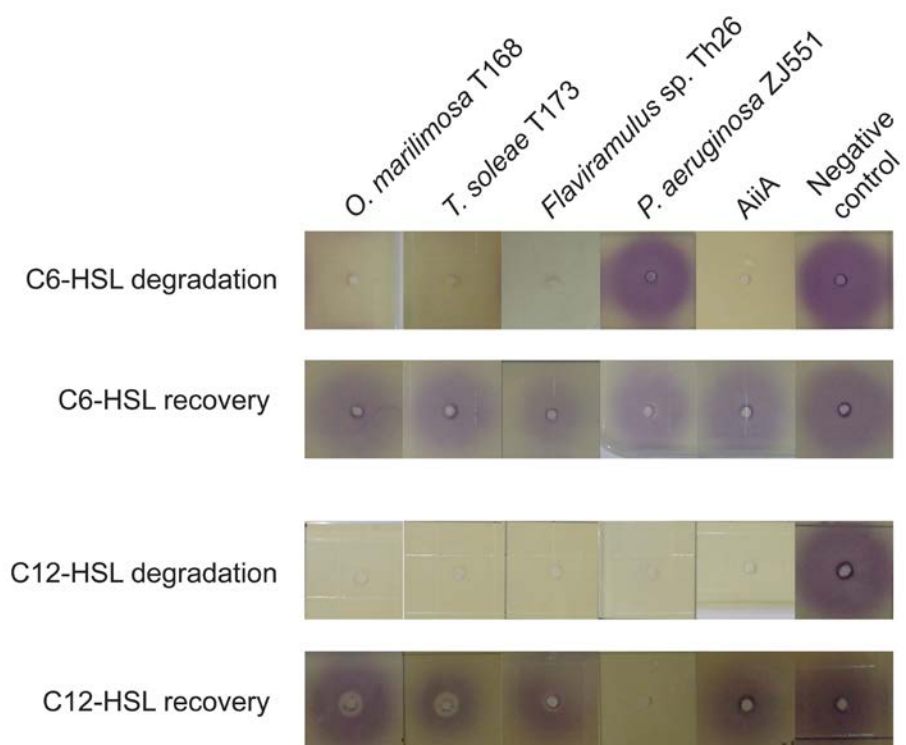


Supplementary Figure S2. The relationships among inoculation amount, assay time, the concentration of C6-HSL and the normalized β -galactosidase.

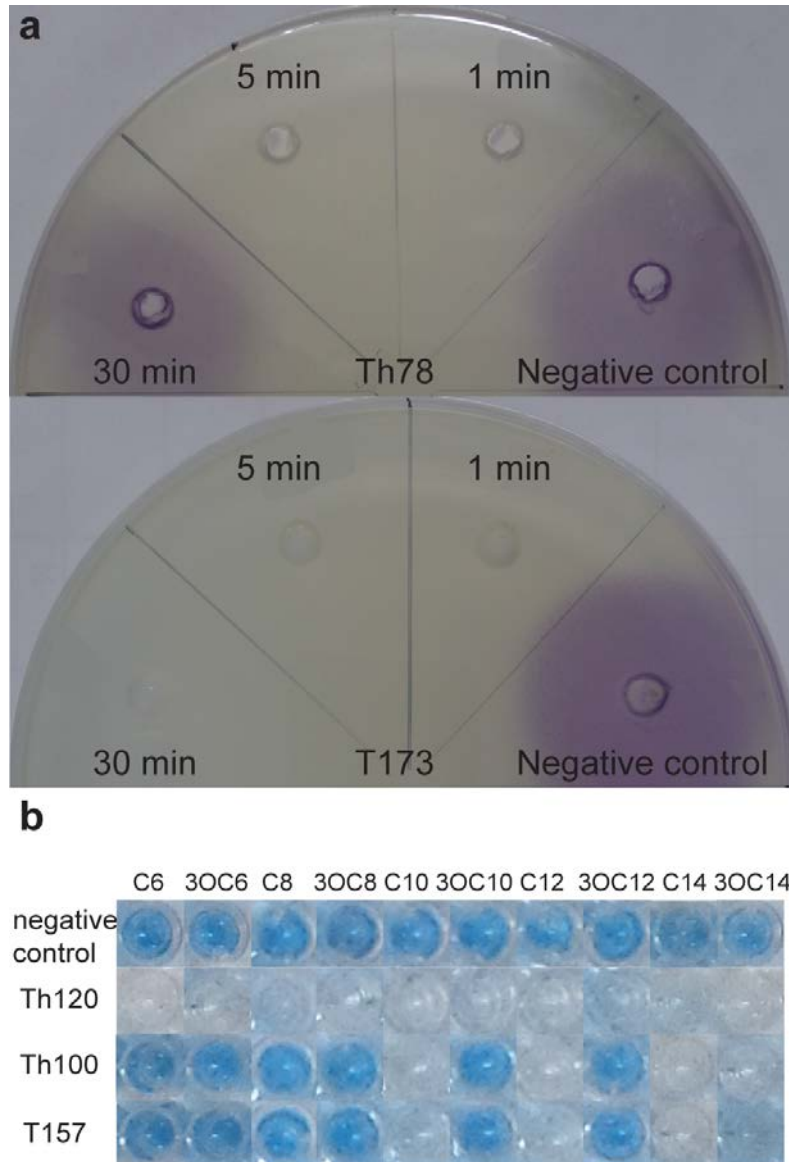


Supplementary Figure S3. The neighbour-joining tree of *Bacillaceae* branch. The number after each strain is the accession number in NCBI database. Bootstrap coefficients below 50% were not shown. Scale bar, 0.02 substitutions per nucleotide position.

*The sequences of 16S rRNA genes of *Geobacillus caldxylosilyticus* YS-8, *Geobacillus thermoglucosidasius* KCCM 41418, *Geobacillus stearothermophilus* YS-9 and *Geobacillus thermoleovorans* YS-1¹ were not available, therefore those of *G. caldxylosilyticus* NBRC1007762, *G. thermoglucosidasius* BGSC95A1, *G. stearothermophilus* R-35646 and *G. thermoleovorans* BGSC96A were used instead.



Supplementary Figure S4. C6-HSL and C12-HSL degradation and recovery by acidification. The recovery of AHLs was performed after C6-HSLs were co-incubated with bacterial cultures for 24 hours and 2 hours for C12-HSL.



Supplementary Figure S5. QQ activities of some representative bacterial strains.

a, The heat-resistance of C6-HSL degrading activities of strains Th78 and T173. The bacterial cultures were boiled for 1-30 min before reaction step and the remaining levels of C6-HSL were measured by the CV026 plate assay. **b**, The substrate specificity of four strains measured by the A136 liquid X-gal assay (Th100, 100% similarity to *Pseudoalteromonas paragorgicola* KMM 3548^T; T157, 100% similarity to *Zobellia russellii* KMM 3677^T).

Reference

1. Seo, M. J., Lee, B. S., Pyun, Y. R. & Park, H. Isolation and characterization of *N*-acylhomoserine lactonase from the thermophilic bacterium, *Geobacillus caldxylosilyticus* YS-8. *Biosci. Biotechnol. Biochem.* **75**, 1789-1795 (2011).