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### ACCEPTED MANUSCRIPT

## The Organophosphate Malathion Disturbs Gut Microbiome Development and the Quorum-Sensing System

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#### Highlights

- This study investigated the effects of an organophosphate malathion on gut microbiome development and quorum-sensing.
- Malathion perturbed gut microbiome development, quorum sensing and quorum-sensing related behaviors, such as motility, pathogenicity, *etc*.
- These findings may provide novel mechanistic understanding of the role of quorum-

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