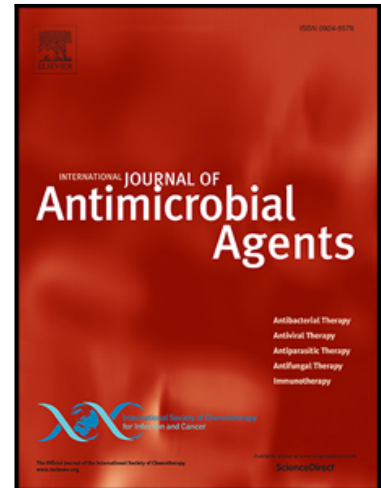


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Can resveratrol, a quorum sensing inhibitor, function as an aminoglycoside antibiotic-accelerant against *Pseudomonas aeruginosa*?

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Highlights

- Resveratrol and aminoglycoside antibiotics (tobramycin, gentamycin, amikacin, and netilmicin) showed enhanced interactions against *Pseudomonas aeruginosa* PAO1.
- Resveratrol partially inhibits *P. aeruginosa* PAO1 biofilm formation, resulting in increased susceptibility to aminoglycoside antibiotics.
- Resveratrol inhibits the expressions of *lasI* and *rhlI*, which encode enzymes that synthesize signal molecules in QS systems, in *P. aeruginosa* PAO1 biofilms.
- Resveratrol significantly enhances the effects of tobramycin, gentamycin, amikacin, and netilmicin on *P. aeruginosa* PAO1 biofilms.
- Resveratrol is a potential aminoglycoside antibiotic-accelerant to enhance efficacy in the treatment of *P. aeruginosa* biofilms.

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