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Vasiliki A. Blana, Alexandra Lianou, George-John E. Nychas

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# Assessment of the effect of a *Salmonella enterica* ser. Typhimurium culture supernatant on the single-cell lag time of foodborne pathogens

Vasiliki A. Blana[1], Alexandra Lianou[1]*, George-John E. Nychas

Laboratory of Microbiology and Biotechnology of Foods, Department of Food Science and Human Nutrition, School of Food, Biotechnology and Development, Agricultural University of Athens, Athens 11855, Greece

[1]; These authors contributed equally to this study.

*; Corresponding author at: Department of Food Science & Human Nutrition, Laboratory of Microbiology and Biotechnology of Foods, Agricultural University of Athens, Iera Odos 75, Athens, 11855, Greece. Tel.: +30 210 529 4939.

E-mail address: alianou@aua.gr (Alexandra Lianou) or gjn@aua.gr

**Abstract**

The objective of this study was the *in vitro* evaluation of the effect of a cell-free microbial supernatant, produced by a *luxS*-positive *Salmonella enterica* ser. Typhimurium strain, on the single-cell growth kinetic behavior of two strains of *S. enterica* (serotypes Enteritidis and Typhimurium) and a methicillin-resistant *Staphylococcus aureus* strain. The single-cell lag time ($\lambda$) of the pathogens was estimated in the absence and presence (20% v/v) of microbial supernatant based on optical density measurements. As demonstrated by the obtained results,