Assessment of flhDC mRNA levels in Serratia liquefaciens swarm cells - DTU Orbit
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We reported previously that artificial overexpression of the flhDC operon in liquid-grown Serratia liquefaciens resulted in the formation of filamentous, multinucleated, and hyperflagellated cells that were indistinguishable from surface-induced swarm cells (L. Eberl, G. Christiansen, S. Molin, and M. Givskov, J. Bacteriol. 178:554-559, 1996). In the present report we show by means of reporter gene measurements, Northern analysis, and in situ reverse transcription-PCR that the amount of flhDC mRNA in surface-grown swarm cells does not exceed the maximum level found in nondifferentiated, vegetative cells. This suggests that surface-induced S. liquefaciens swarm cell differentiation, although dependent on flhDC gene expression, does not occur through elevated flhDC mRNA levels.

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