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Author	Jonas Söderberg	
Title (English)	Global regulation of bacterial growth	
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Abstract	<p>Bacteria growing in different media adjust to these in order to grow as fast as possible. This is regulated by a complex network of control systems. I have modelled the cell's response to amino acid deficiency in the medium. The response to amino acid starvation is called "the stringent response" and causes amino acid production to increase in the cell in order to cover for the starvation. The model started out from the fact that the level of ppGpp (guanosine tetraphosphate) in the cell increases drastically during the stringent response. A mathematical model for the role of ppGpp in the response was created. The results showed that the concentration of ppGpp indeed is a possible control mechanism for the stringent response to nutritional stress.</p>	
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Biology Education Centre Box 592 S-75124 Uppsala	Biomedical Center Tel +46 (0)18 4710000	Husargatan 3 Uppsala Fax +46 (0)18 555217