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Name: Miss Blue Vanilla

Class: Essencia Coli

Subclass: Control Bacteria

Special Power: Vanilla Production

Date of Birth: Summer 2009

Location: K.U.Leuven

My Mission

I belong to a class of odour producing bacteria: 'Essencia Coli'. My special asset is Vanilla. My designers equipped me with a control system that keeps the concentration of vanillin at a constant level. The novelty of this project is the feedback mechanism. Vanillin synthesis is initiated by irradiation with blue light. The preferred concentration can be modulated using the intensity of that light. At the same time I can measure the amount of vanillin outside the cell and control its production to maintain the set point. An additional advantage lies in the universal nature of my system. The concept can easily be applied to all members of the Essencia Coli class, but also to flavour producing bacteria: in short, any application that requires a constant concentration of a molecular substance.

You can study my anatomy and physiology at [the project page](#)

My Team

After the first –and succesful – participation last year, we want to continue with the same enthusiasm. This year, our team is expanded with biomedical students. Together with engineers, bio-engineers, scientists and all our instructors and advisors, we are the [iGEM 2009 K.U.Leuven Team!](#)



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