



Molecular responses in root-associative rhizospheric bacteria to variations in plant exudates

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Plant exudates are a major factor in the interface of plant-soil-microbe interactions and it is well documented that the microbial community structure in the rhizosphere is largely influenced by the particular exudates excreted by various plants. *Azospirillum brasilense* is a plant growth promoting rhizobacterium that is known to interact with a large number of plants, including important food crops. The regulatory gene *flcA* has an important role in this interaction as it controls morphological differentiation of the bacterium that is essential for attachment to root surfaces. Being a response regulatory gene, *flcA* mediates the response of the bacterial cell to signals from the surrounding rhizosphere. This makes this regulatory gene a good candidate for analysis of the response of bacteria to rhizospheric alterations, in this case, variations in root exudates. We will report on our studies on the response of *Azospirillum*, an ecologically, scientifically and agriculturally important bacterial genus, to variations in the rhizosphere.