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Genomics-Driven Discovery of Secondary Metabolites from *Burkholderia* spp. that Interact with Fungi

Mushrooms such as the white button mushroom *Agaricus bisporus* are an important food source due to high protein and mineral contents. However, mushroom infections caused by microbes can lead to huge economic losses. To prevent the infection, the structure and biological function of virulence factors need to be identified. The aim of this project is to gain insight into the metabolic potential of various mushroom-pathogenic bacteria, for example *Burkholderia gladioli* pv. *agaricicola*, which causes cavity disease in *A. bisporus*, by a combination of genome mining and chemical analysis.

Publications

Sundaram S, Kim HJ, Bauer R, Thongkongkaew T, Heine D, Hertweck C (2018) On-line Polyketide Cyclization into Diverse Medium-Sized Lactones by a Specialized Ketosynthase Domain. *Angew Chem Int Ed Engl* 57(35), 11223-11227. [Details PubMed](#)

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Zhang Y, Scherlach K, Müller R, Hertweck C (2018) Two Types of Threonine-Tagged Lipopeptides Synergize in Host Colonization by Pathogenic Burkholderia Species. *ACS Chem Biol* 13(5), 1370-1379.
[Details](#) [PubMed](#)

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Start of PhD

October 1, 2014

Doctoral Disputation

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