Biosynthesis and function of gliotoxin in *Aspergillus fumigatus*.

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Abstract

Gliotoxin (GT) is the prototype of the epidithiodioxopiperazine (ETP)-type fungal toxins. GT plays a critical role in the pathobiology of Aspergillus fumigatus. It modulates the immune response and induces apoptosis in different cell types. The toxicity has been attributed to the unusual intramolecular disulfide bridge, which is the functional motif of all ETPs. Because of the extraordinary structure and activity of GT, this fungal metabolite has been the subject of many investigations. The biosynthesis of GT involves unprecedented reactions catalysed by recently discovered enzymes. Here, we summarize the recent progress in elucidating the GT biosynthetic pathway and its role in virulence.

Beteiligte Forschungseinheiten

Biomolekulare Chemie Christian Hertweck Mehr erfahren

Molekulare und Angewandte Mikrobiologie Axel Brakhage Mehr erfahren

Leibniz-HKI-Autor*innen



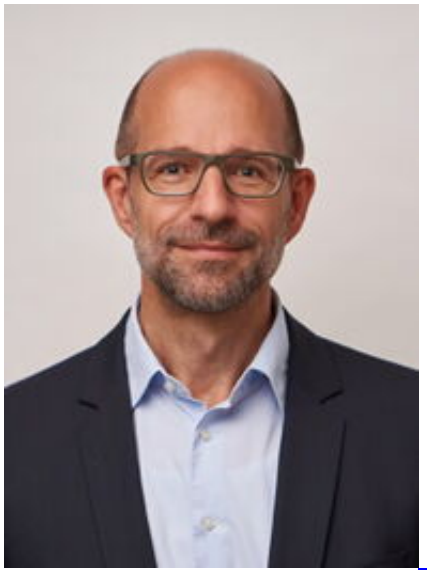
Axel A. Brakhage

Details



Thorsten Heinekamp

Details



Christian Hertweck

Details



Peter Hortschansky

Details



Daniel H. Scharf

Details

Identifier

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