



## Dr. Vito Valiante

[Biobricks of Microbial Natural Product Syntheses · Head](#) +49 3641 532-1090  
[vito.valiante@leibniz-hki.de](mailto:vito.valiante@leibniz-hki.de)

### Publications

Jojić K\*, Gherlone F\*, Cseresnyés Z, Bissell AU, Hoefgen S, Hoffmann S, Huang Y, Janevska S, Figge MT, Valiante V (2024) The spatial organization of sphingofungin biosynthesis in *Aspergillus fumigatus* and its cross-interaction with sphingolipid metabolism. *mBio* 15(3), e0019524.

[Details](#)



Valiante V (2023) Advances in synthetic biology of fungi and contributions to the discovery of new molecules. *ChemBioChem* 24(11), e202300008. (Review)

[Details](#)



Bissell AU, Rautschek J, Hoefgen S, Raguž L, Mattern DJ, Saeed N, Janevska S, Jojić K, Huang Y, Kufs JE, Herboeck B, Guo H, Hillmann F, Beemelmans C, Valiante V (2022) Biosynthesis of the sphingolipid inhibitors sphingofungins in filamentous fungi requires aminomalonnate as a metabolic precursor. *ACS Chem Biol* 17(2), 386-394.

[Details](#)



Günther M<sup>\*</sup>, Reimer C<sup>\*</sup>, Herbst R<sup>\*</sup>, Kufs JE, Rautschek J, Ueberschaar N, Zhang S, Peschel G, Reimer L, Regestein L, Valiante V, Hillmann F<sup>#</sup>, Stallforth P<sup>#</sup> (2022) Yellow polyketide pigment suppresses premature hatching in social amoeba. *Proc Natl Acad Sci U S A* 119(43), e2116122119.

[Details](#)



Hoefgen S, Bissell AU, Huang Y, Gherlone F, Raguž L, Beemelmanns C, Valiante V (2022) Desaturation of the sphingofungin polyketide tail results in increased serine palmitoyltransferase inhibition. *Microbiol Spectr* 10(5), e0133122.

[Details](#)



Huang Y, Valiante V (2022) Chemical diversity and biosynthesis of drimane-type sesquiterpenes in the fungal kingdom. *ChemBioChem* 23(17), e202200173. (Review)

[Details](#)



Huang Y<sup>\*</sup>, Hoefgen S<sup>\*</sup>, Gherlone F, Valiante V (2022) Intrinsic ability of the  $\beta$ -oxidation pathway to produce bioactive styrylpyrones. *Angew Chem Int Ed* 61(34), e202206851.

## [Details](#)



Kufs JE, Reimer C, Steyer E, Valiante V, Hillmann F, Regestein L (2022) Scale-up of an amoeba-based process for the production of the cannabinoid precursor olivetolic acid. *Microb Cell Fact* 21(1), 217.

## [Details](#)



Maehler D, Hoefgen S, Münchberg U, Schmitz OJ, Rautschek J, Huang Y, Freier E, Valiante V (2022) Time-resolved multiparameter analytics on a cell-free production platform for acyl-CoA precursors. *Anal Sci Adv* 3, 289-296.

## [Details](#)



Reimer C<sup>\*</sup>, Kufs JE<sup>\*</sup>, Rautschek J, Regestein L, Valiante V<sup>#</sup>, Hillmann F<sup>#</sup> (2022) Engineering the amoeba *Dictyostelium discoideum* for biosynthesis of a cannabinoid precursor and other

polyketides. *Nat Biotechnol* 40(5), 751-758.

[Details](#)



Page 1 of 5

- **1**
- [2](#)
- [3](#)
- [4](#)
- [5](#)
- [Load more](#)
- [Last](#)

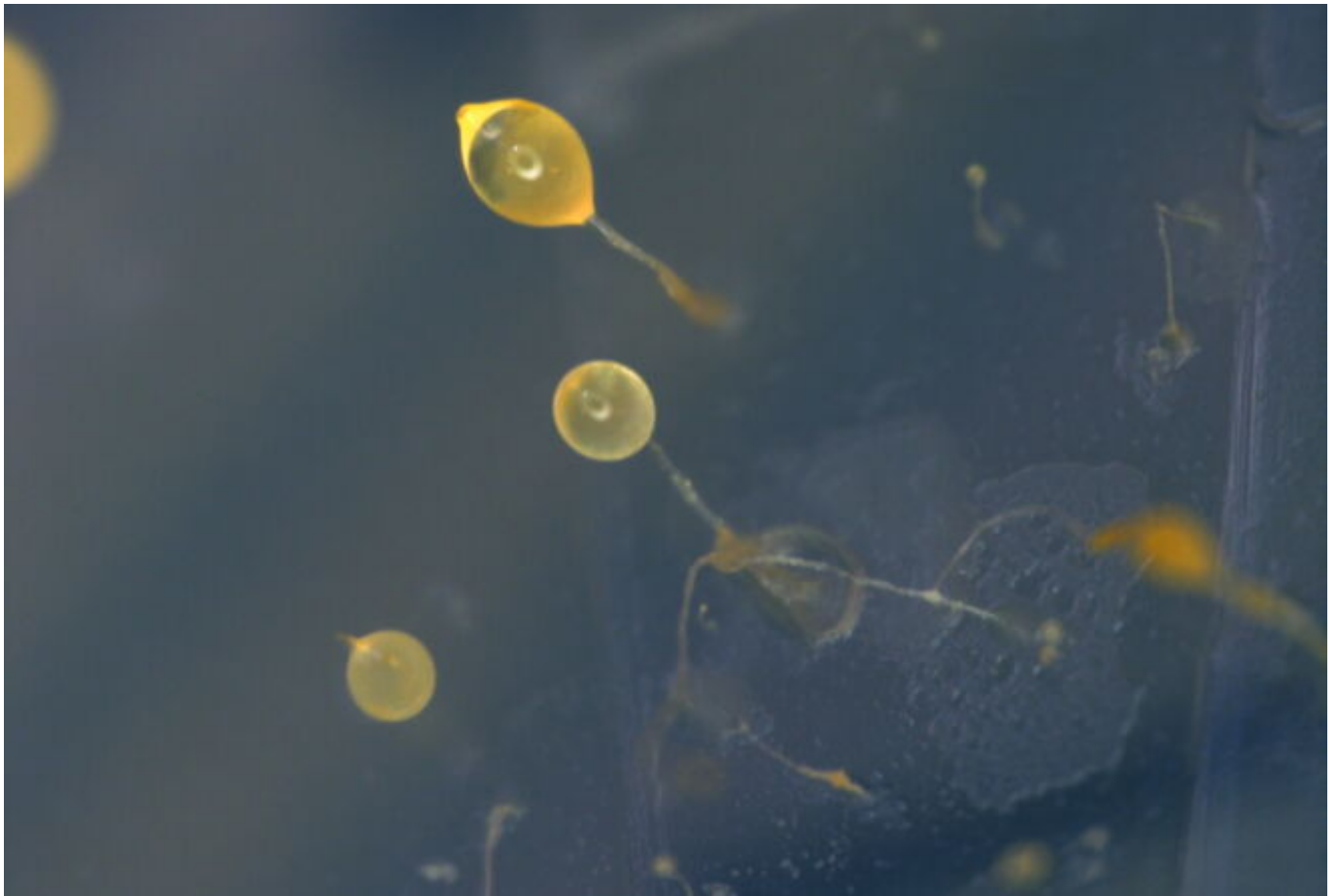
[Publication list as PDF](#)

## News

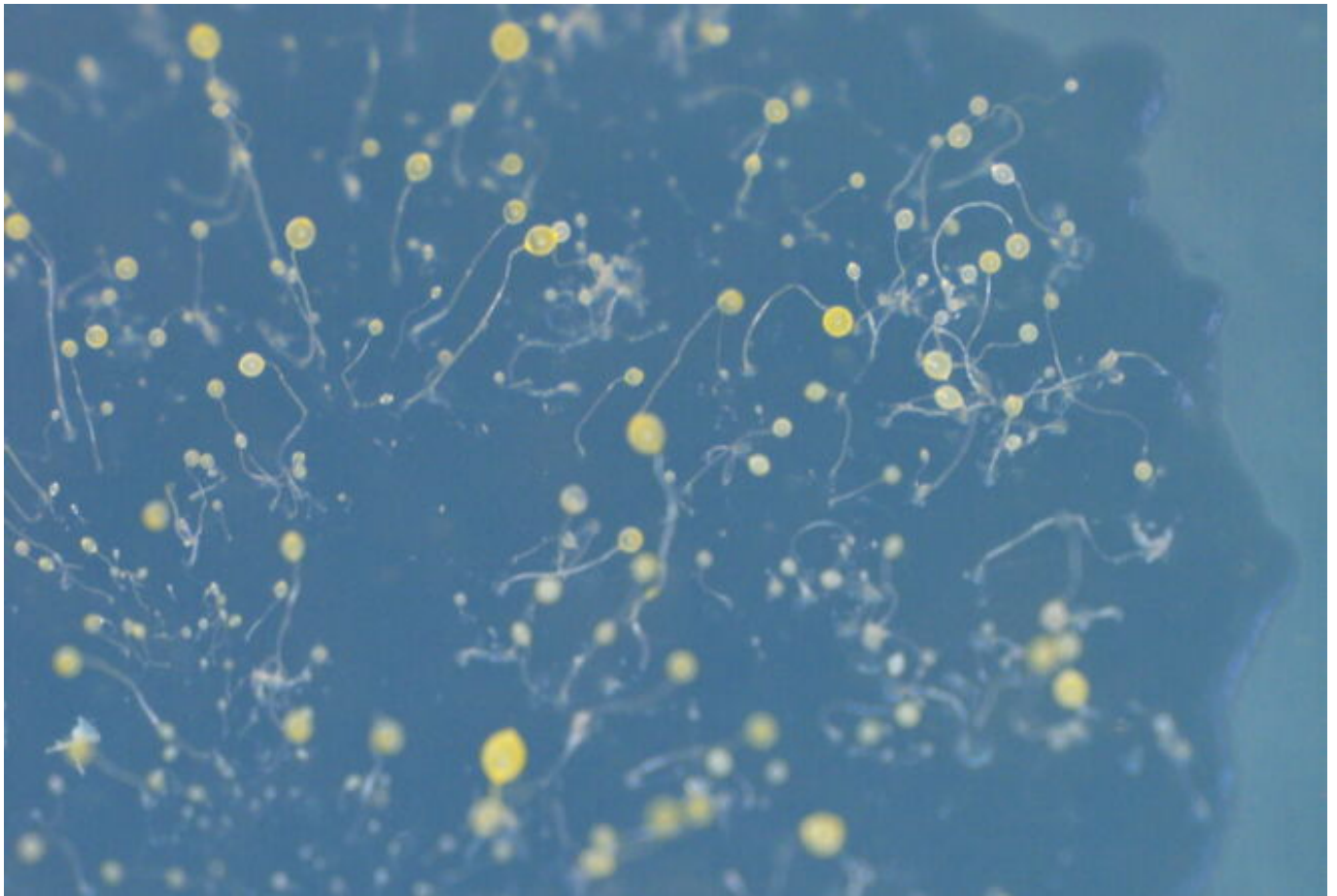
—



[medac Research Award 2022: Successful Collaboration](#) Four groundbreaking research projects at the Leibniz Institute for Natural Product Research and Infection Biology (Leibniz-HKI) were awarded the medac... 12/12/2022 Read more



[Innovationspreis Thüringen: Leibniz-HKI researchers nominated](#) [The Leibniz-HKI entry "Amoebae as biotechnological chassis for the production of pharmaceutical compounds" by researchers Christin Reimer, Joh...](#) 11/16/2022 [Read more](#)



[Yellow pigment keeps social amoebae together](#) The multicellular stage of the amoeba *Dictyostelium discoideum* is partially regulated by an intensely yellow natural product, as researchers of the Le... 10/19/2022 [Read more](#)



[New therapeutic approaches, microbe wars and new ways of producing active compounds The pharmaceutical company medac GmbH once again honors groundbreaking research work performed at the Leibniz-HKI. The award recognizes the successful... 01/18/2022 Read more](#)



[Cannabinoids from amoebae](#) A research team at the Leibniz-HKI has developed a new method to produce complex natural products in amoebae. These polyketides include various antibi...  
01/07/2022 [Read more](#)



[Fungal biosynthesis of sesquiterpene natural products Vito Valiante and his team gained insights into the biosynthesis of sesquiterpenes in \*Aspergillus calidoustus\*. 09/09/2021 Read more](#)

-