

Publications

Brandt P^{*}, Mirhakkak MH^{*}, Wagner L, Driesch D, Möslinger A, Fänder P, Schäuble S, Panagiotou G, Vylkova S[#] (2023) High-throughput profiling of *Candida auris* isolates reveals clade-specific metabolic differences. *Microbiol Spectr* 11(3), e0049823.

Garbe E, Thielemann N, Hohner S, Kumar A, Vylkova S, Kurzai O, Martin R (2023) Functional analysis of the *Candida albicans* ECE1 Promoter. *Microbiol Spectr* 11(2), e0025323.

Häder A[#], Schäuble S[#], Gehlen J, Thielemann N, Buerfent BC, Schüller V, Hess T, Wolf T, Schröder J, Weber M, Hünniger K, Löffler J, Vylkova S, Panagiotou G, Schumacher J, Kurzai O (2023) Pathogen-specific innate immune response patterns are distinctly affected by genetic diversity. *Nat Commun* 14(1), 3239.

Rebai Y, Wagner L, Gnaien M, Hammer ML, Kapitan M, Niemic MJ, Mami W, Mosbah A, Messadi E, Mardassi H, Vylkova S, Jacobsen ID, Znaidi S[#] (2023) *Escherichia coli* nissle 1917 antagonizes *Candida albicans* growth and protects intestinal cells from *C. albicans*-mediated damage. *Microorganisms* 11(8), 1929.

Alonso-Roman R, Last A, Mirhakkak MH, Sprague JL, Möller L, Großmann P, Graf K, Gratz R, Mogavero S, Vylkova S, Panagiotou G, Schäuble S, Hube B, Gresnigt MS (2022) *Lactobacillus rhamnosus* colonisation antagonizes *Candida albicans* by forcing metabolic adaptations that compromise pathogenicity. *Nat Commun* 13(1), 3192.

Böttcher B, Driesch D, Krüger T, Garbe E, Gerwien F, Kniemeyer O, Brakhage AA, Vylkova S (2022) Impaired amino acid uptake leads to global metabolic imbalance of *Candida albicans* biofilms. *NPJ Biofilms Microbiomes* 8(1), 78.

Brandt P, Gerwien F, Wagner L, Krüger T, Ramírez-Zavala B, Mirhakkak MH, Schäuble S, Kniemeyer O, Panagiotou G, Brakhage AA, Morschhäuser J, Vylkova S (2022) *Candida albicans* SR-like protein kinases regulate different cellular processes: Sky1 is involved in control of ion homeostasis, while Sky2 is important for dipeptide utilization. *Front Cell Infect Microbiol* 12, 850531.

Garbe E, Gerwien F, Driesch D, Müller T, Böttcher B, Gräler M, Vylkova S (2022) Systematic metabolic profiling identifies *de novo* sphingolipid synthesis as hypha associated and essential for *Candida albicans* filamentation. *mSystems* 7(6), e0053922.

Garbe E, Miramón P, Gerwien F, Ueberschaar N, Hansske-Braun L, Brandt P, Böttcher B, Lorenz M, Vylkova S (2022) GNP2 encodes a high-specificity proline permease in *Candida albicans*. *mBio* 13(1), e0314221.

Mirhakkak M, Schäuble S, Klassert T, Brunke S, Brandt P, Loos D, Uribe R, de Oliveira Lino FS, Ni Y, Vylkova S, Slevogt H, Hube B, Weiss G, Sommer M, Panagiotou G[#] (2021) Metabolic modeling predicts specific gut bacteria as key determinants for *Candida albicans* colonization levels. *ISME J* 15(5), 1257-1270.

Böttcher B, Hoffmann B, Garbe E, Weise T, Cseresnyés Z, Brandt P, Dietrich S, Driesch D, Figge MT, Vylkova S (2020) The transcription factor Stp2 is important for *Candida albicans* biofilm establishment and sustainability. *Front Microbiol* 11, 794.

Brandt P, Garbe E, Vylkova S (2020) Catch the wave: Metabolomic analyses in human pathogenic fungi. *PLOS Pathog* 16(8), e1008757. (Review)

Gerwien F, Dunker C, Brandt P, Garbe E, Jacobsen ID, Vylkova S (2020) Clinical *Candida albicans* vaginal isolates and a laboratory strain show divergent behaviors during macrophage interactions. *mSphere* 5(4), e00393-20.

Ruben S, Garbe E, Mogavero S, Albrecht-Eckardt D, Hellwig D, Häder A, Krüger T, Gerth K, Jacobsen ID, Elshafee O, Brunke S, Hünniger K, Kniemeyer O, Brakhage AA, Morschhäuser J, Hube B, Vylkova S, Kurzai O, Martin R (2020) Ahr1 and Tup1 contribute to the transcriptional control of virulence-associated genes in *Candida albicans*. *mBio* 11(2), e00206-20.

von Müller C, Bulman F, Wagner L, Rosenberger D, Marolda A, Kurzai O, Eißmann P, Jacobsen ID, Perner B, Hemmerich P, Vylkova S (2020) Active neutrophil responses counteract *Candida albicans* burn wound infection of *ex vivo* human skin explants. *Sci Rep* 10(1), 21818.

Wagner L, Bloos F, Vylkova S (2020) Bloodstream infection due to *Enterobacter ludwigii*, correlating with massive aggregation on the surface of a central venous catheter. *Infection* 48(6), 955-958.

Weise T, Böttcher B, Vylkova S (2020) Bioflux analysis. *Protocols*,

Garbe E, Vylkova S (2019) Role of amino acid metabolism in the virulence of human pathogenic fungi. *Curr Clin Micro Rpt* 6(9), 108-119. (Review)

Vylkova S (2017) Environmental pH modulation by pathogenic fungi as a strategy to conquer the host. *PLOS Pathog* 13(2), e1006149.

Vylkova S, Lorenz MC (2014) Modulation of phagosomal pH by *Candida albicans* promotes hyphal morphogenesis and requires Stp2p, a regulator of amino acid transport. *PLOS Pathog* 10(3), e1003995.

*equal contribution #corresponding author