

Publications

Nikitashina L, Chen X, Radosa L, Li K, Straßburger M, Seelbinder B, Böhnke W, Vielreicher S, Nietzsche S, Heinekamp T, Jacobsen ID, Panagiotou G, Brakhage AA (2025) The murine lung microbiome is disbalanced by the human-pathogenic fungus *Aspergillus fumigatus* resulting in enrichment of anaerobic bacteria. *Cell Rep* 44(3), 115442.

Jia LJ, Rafiq M, Radosa L, Hortschansky P, Cunha C, Cseresnyés Z, Krüger T, Schmidt F, Heinekamp T, Straßburger M, Loeffler B, Doenst T, Lacerda JF, Campos A, Figge MT, Carvalho A, Kniemeyer O, Brakhage AA[#] (2023) *Aspergillus fumigatus* hijacks human p11 to redirect fungal-containing phagosomes to non-degradative pathway. *Cell Host Microbe* 31(3), 373-388.e10.

Joch M, Wojtas KP, Torres-Gómez H, Li Y, Meyer F, Straßburger M, Kerndl V, Dahse HM, Hertweck C, Hoffmann H, Görls H, Walter K, Hölscher C, Kloss F (2023) Whole cell hydride Meisenheimer complex biotransformation guided optimization of antimycobacterial benzothiazinones. *Eur J Med Chem* 264, 116023.

Brantl V, Boysen JM, Yap A, Golubtsov E, Ruf D, Heinekamp T, Straßburger M, Dichtl K, Haas H, Hillmann F, Wagener J (2021) Peroxiredoxin Asp f3 is essential for *Aspergillus fumigatus* to overcome iron limitation during infection. *mBio* 12(4), e0097621.

Birštonas L, Dallemulle A, López-Berges MS, Jacobsen ID, Offterdinger M, Abt B, Straßburger M, Bauer I, Schmidt O, Sarg B, Lindner H, Haas H, Gsaller F (2020) Multiplex genetic engineering exploiting pyrimidine salvage pathway-based endogenous counterselectable markers. *mBio* 11(2), e00230-20.

Frawley D, Stroe MC, Oakley BR, Heinekamp T, Straßburger M, Fleming AB, Brakhage AA, Bayram Ö (2020) The pheromone module SteC-MkkB-MpkB-SteD-HamE regulates development, stress responses and secondary metabolism in *Aspergillus fumigatus*. *Front Microbiol* 11, 811.

Zukovskaja O, Ryabchykov O, Straßburger M, Heinekamp T, Brakhage AA, Hennings CJ, Hübner CA, Wegmann M, Cialla-May D, Bocklitz TW, Weber K, Popp J (2020) Towards Raman spectroscopy of urine as screening tool. *J Biophotonics* 13(1), e201900143.

König S, Pace S, Pein H, Heinekamp T, Kramer J, Romp E, Straßburger M, Troisi F, Proschak A, Dworschak J, Scherlach K, Rossi A, Sautebin L, Haeggström JZ, Hertweck C, Brakhage AA, Gerstmeier J, Proschak E, Werz O (2019) Gliotoxin from *Aspergillus fumigatus* abrogates leukotriene B4 formation through inhibition of leukotriene A4 hydrolase. *Cell Chem Biol* 26(4), 524-534.

Manfiolli AO, Siqueira FS, Dos Reis TF, Van Dijck P, Schrevens S, Hoefgen S, Föge M, Straßburger M, de Assis LJ, Heinekamp T, Rocha MC, Janevska S, Brakhage AA, Malavazi I, Goldman GH, Valiante V (2019) Mitogen-activated protein kinase cross-talk interaction modulates the production of melanins in *Aspergillus fumigatus*. *mBio* 10(2), e00215-19.

Long N, Orasch T, Zhang S, Gao L, Xu X, Hortschansky P, Ye J, Zhang F, Xu K, Gsaller F, Straßburger M, Binder U, Heinekamp T, Brakhage AA, Haas H, Lu L (2018) The Zn²⁺Cys⁶-type transcription factor LeuB cross-links regulation of leucine biosynthesis and iron acquisition in *Aspergillus fumigatus*. *PLOS Genet* 14(10), e1007762.

Voltersen V, Blango MG, Herrmann S, Schmidt F, Heinekamp T, Strassburger M, Krüger T,

Bacher P, Lothar J, Weiss E, Hünninger K, Liu H, Hortschansky P, Scheffold A, Loeffler J, Krappmann S, Nietzsche S, Kurzai O, Einsele H, Kniemeyer O, Filler S, Reichard U, Brakhage AA (2018) Proteome analysis reveals the conidial surface protein CcpA essential for virulence of the pathogenic fungus *Aspergillus fumigatus*. *mBio* 9(5), e01557-18.

Johns A†, Scharf DH†, Gsaller F, Schmidt H, Heinekamp T, Straßburger M, Oliver JD, Birch M, Beckmann N, Dobb KS, Gilsenan J, Rash B, Bignell E, Brakhage AA*, Bromley MJ† †shared first authors, * corresponding authors (2017) A nonredundant phosphopantetheinyl transferase, PptA, is a novel antifungal target that directs secondary metabolite, siderophore, and lysine biosynthesis in *Aspergillus fumigatus* and is critical for pathogenicity. *MBio* 8(4), e01504-e01516.

Svensson C-M*, Hoffmann B*, Irmeler I, Straßburger M, Figge MT**, Saluz HP** ; * authors contributed equally; ** corresponding authors, authors contributed equally (2017) Quantification of arthritic bone degradation by analysis of 3D micro-computed tomography data. *Sci Rep* 7, 44434.

Hillmann F, Bagramyan K, Straßburger M, Heinekamp T, Hong TB, Bzymek KP, Williams JC, Brakhage AA, Kalkum M (2016) The crystal structure of peroxiredoxin Asp f3 provides mechanistic insight into oxidative stress resistance and virulence of *Aspergillus fumigatus*. *Sci Rep* 6, 33396.

Kniemeyer O, Ebel F, Krüger T, Bacher P, Scheffold A, Luo T, Strassburger M, Brakhage AA (2016) Immunoproteomics of *Aspergillus* for the development of biomarkers and immunotherapies. *Proteomics Clin Appl* 10(9-10), 910-921. (Review)

Kroll K, Shekhova E, Mattern DJ, Thywissen A, Jacobsen ID, Strassburger M, Heinekamp T, Shelest E, Brakhage AA, Kniemeyer O (2016) The hypoxia-induced dehydrogenase HorA is required for coenzyme Q10 biosynthesis, azole sensitivity and virulence of *Aspergillus fumigatus* *Mol Microbiol* 101(1), 92-108.

Valiante V, Baldin C, Hortschansky P, Jain R, Thywißen A, Straßburger M, Shelest E, Heinekamp T, Brakhage AA (2016) The *Aspergillus fumigatus* conidial melanin production is regulated by the bifunctional bHLH DevR and MADS-box RlmA transcription factors. *Mol Microbiol* 102(2), 321-335.

Lin CJ, Sasse C, Gerke J, Valerius O, Irmer H, Frauendorf H, Heinekamp T, Straßburger M, Tran VT, Herzog B, Braus-Stromeyer SA, Braus GH (2015) Transcription Factor SomA Is Required for Adhesion, Development and Virulence of the Human Pathogen *Aspergillus fumigatus* *PLOS Pathogens* 11(11), e1005205.

Macheleidt J, Scherlach K, Neuwirth T, Schmidt-Heck W, Straßburger M, Spraker J, Baccile JA, Schroeder FC, Keller NP, Hertweck C, Heinekamp T, Brakhage AA (2015) Transcriptome analysis of cAMP-dependent protein kinase A regulated genes reveals the production of the novel natural compound fumipyrrole by *Aspergillus fumigatus* *Mol Microbiol* 96(1), 148-162.

Hillmann F, Linde J, Beckmann N, Cyrulies M, Strassburger M, Heinekamp T, Haas H, Guthke R, Kniemeyer O, Brakhage AA (2014) The novel globin protein fungogloblin is involved in low oxygen adaptation of *Aspergillus fumigatus*. *Mol Microbiol* 93(3), 539-553.

Lapp K, Vödisch M, Kroll K, Strassburger M, Kniemeyer O, Heinekamp T, Brakhage AA (2014) Characterisation of the *Aspergillus fumigatus* detoxification systems for reactive nitrogen intermediates and impact on virulence. *Frontiers in Microbiology* 5, 469.

*equal contribution #corresponding author