

Publications

Dewi IMW, Bruno M, Janssen NAF, Gresnigt MS, van Laarhoven A, van Crevel R, van de Veerdonk FL (2025) *Aspergillus fumigatus* and *Mycobacterium tuberculosis* synergistically induce TNF and IL-1 β via different pathways in human peripheral blood mononuclear cells. *Cytokine* 195, 157018.

Gonçalves SM, Leite L, de Vasconcelos P, Pereira I, Dewi IMW, Mercier T, Aerts R, Ligeiro D, Mendes F, Freitas F, Condeço J, Vieira J, Espada E, Lagrou K, Maertens JA, Gresnigt MS, Dinarello CA, Lacerda JF, Vaz CP, Cunha C, Carvalho A, van de Veerdonk FL (2025) A functional polymorphism in IL-36 β modulates macrophage antifungal effector functions and increases susceptibility to invasive pulmonary Aspergillosis. *J Infect Dis* 232(5), 1208-1219.

Hitzler SUJ, Fernández-Fernández C, Günther K, Dietschmann A, Hovhannisyan H, Möslinger A, Austermeier S, Cristóvão B, Vascelli G, Zelante T, Pekmezović M, Ramírez-Zavala B, Morschhäuser J, Werz O, Gabaldón T, Jordan PM, Vylkova S, Gresnigt MS (2025) Host albumin redirects *Candida albicans* metabolism to engage an alternative pathogenicity pathway. *Nat Commun* 16(1), 6447.

Kaden T, Alonso-Román R, Stallhofer J, Gresnigt MS, Hube B, Mosig AS (2025) Leveraging organ-on-chip models to investigate host-microbiota dynamics and targeted therapies for inflammatory bowel disease. *Adv Healthc Mater* 14(10), e2402756. (Review)

Koceva H, Amiratashani M, Akbarimoghaddam P, Hoffmann B, Zhurgenbayeva G, Gresnigt MS, Marcelino VR, Eggeling C, Figge MT, Amorim MJ, Mosig AS[#] (2025) Deciphering respiratory viral infections by harnessing organ-on-chip technology to explore the gut-lung axis. *Open Biol* 15(3), 240231.

Praetorius JP^{*}, Hitzler SUJ^{*}, Gresnigt MS[#], Figge MT[#] (2025) Image-based quantification of *Candida albicans* filamentation and hyphal length using the open-source visual programming language JIPipe. *FEMS Yeast Res* 25, foaf011.

Rosati D, Valentine M, Bruno M, Pradhan A, Dietschmann A, Jaeger M, Leaves I, van de Veerdonk FL, Joosten LAB, Roy S, Stappers MHT, Gow NAR, Hube B, Brown AJP, Gresnigt MS, Netea MG (2025) Lactic acid in the vaginal milieu modulates the *Candida*-host interaction. *Virulence* 16(1), 2451165.

Valentine M, Rosati D, Dietschmann A, Schille TB, Netea MG, Hube B, Gresnigt MS (2025) Probiotic *Lactobacillus* species modulate immune responses during vaginal epithelial cell colonization. *J Infect Dis* 232(3), e403-e415.

Valentine M, Wilson D, Gresnigt MS, Hube B (2025) Vaginal *Candida albicans* infections: host-pathogen-microbiome interactions. *FEMS Microbiol Rev* 49, fuaf013. (Review)

Wagener J, Wang X, Becker KL, Aimaniananda V, Valsecchi I, Gresnigt MS, Netea MG, Latge JP, Gow NAR, van de Veerdonk FL (2025) Immunomodulatory function of chitosan is dependent on complement receptor 3. *Cell Surf* 14, 100146.

Alonso-Roman R, Mosig AS, Figge MT, Papenfort K, Eggeling C, Schacher FH, Hube B[#], Gresnigt MS (2024) Organ-on-chip models for infectious disease research. *Nat Microbiol* 9(4), 891-904. (Review)

Cheng KO, Montaña DE, Zelante T, Dietschmann A, Gresnigt MS (2024) Inflammatory cytokine signalling in vulvovaginal candidiasis: a hot mess driving immunopathology. *Oxf Open Immunol* 5(1), iqa010. (Review)

Hitzler SUJ, Fernández C, Montaña DE, Dietschmann A, Gresnigt MS (2024) Microbial adaptive pathogenicity strategies to the host inflammatory environment. *FEMS Microbiol Rev* 49, fu032. (Review)

Jaeger M, Dietschmann A, Austermeier S, Dinçer S, Porschitz P, Vornholz L, Maas RJA, Sprengeler EGG, Ruland J, Wirtz S, Azam T, Joosten LAB, Hube B, Netea MG, Dinarello CA, Gresnigt MS (2024) Alpha1-antitrypsin impacts innate host-pathogen interactions with *Candida albicans* by stimulating fungal filamentation. *Virulence* 15(1), 2333367.

Kaden T^{*}, Alonso-Roman R^{*}, Akbarimoghaddam P^{*}, Mosig AS, Graf K, Raasch M, Hoffmann B, Figge MT[#], Hube B[#], Gresnigt MS[#] (2024) Modeling of intravenous caspofungin administration using an intestine-on-chip reveals altered *Candida albicans* microcolonies and pathogenicity. *Biomaterials* 307, 122525.

Pekmezović M, Hube B, Gresnigt MS (2024) Pathogenicity strategies of *Candida* species during interactions with epithelial cells. In: Brakhage AA, Kniemeyer O, Zipfel PF (eds.) *The Mycota - Human and Animal Relationships* 3. 6, pp. 35-49. Springer, Cham. ISBN: 978-3-031-64852. (Review)

Schaefer S, Vij R, Sprague JL, Austermeier S, Dinh H, Judzewitsch PR, Müller-Loennies S, Lopes Silva T, Seemann E, Qualmann B, Hertweck C, Scherlach K, Gutschmann T, Cain AK, Corrigan N, Gresnigt MS, Boyer C, Lenardon MD, Brunke S (2024) A synthetic peptide mimic kills *Candida albicans* and synergistically prevents infection. *Nat Commun* 15(1), 6818.

Schimanski J, Gresnigt MS, Brunner E, Werz O, Hube B, Garscha U (2024) Hyphal-associated protein expression is crucial for *Candida albicans*-induced eicosanoid biosynthesis in immune cells. *Eur J Immunol* 54(3), e2350743.

Valentine M^{*}, Rudolph P^{*}, Dietschmann A, Tsavou A, Mogavero S, Lee S, Priest EL, Zhurgenbayeva G, Jablonowski N, Timme S, Eggeling C, Allert S, Dolk E, Naglik JR, Figge MT, Gresnigt MS^{*#}, Hube B^{*#} (2024) Nanobody-mediated neutralization of candidalysin prevents epithelial damage and inflammatory responses that drive vulvovaginal candidiasis pathogenesis. *mBio* 15(3), e0340923.

Chao YY, Puhach A, Frieser D, Arunkumar M, Lehner L, Seeholzer T, Garcia-Lopez A, van der Wal M, Fibi-Smetana S, Dietschmann A, Sommermann T, Ćiković T, Taher L, Gresnigt MS, Vastert SJ, van Wijk F, Panagiotou G, Krappmann D, Groß O, Zielinski CE (2023) Human TH17 cells engage gasdermin E pores to release IL-1 α on NLRP3 inflammasome activation. *Nat Immunol* 24(2), 295-308.

Lange T, Kasper L, Gresnigt MS, Brunke S, Hube B (2023) "Under Pressure" - How fungi evade, exploit, and modulate cells of the innate immune system. *Semin Immunol* 66, 101738. (Review)

Westermann S, Schubart C, Dietschmann A, Castiglione K, Radtke D, Voehringer D (2023) Th2-dependent STAT6-regulated genes in intestinal epithelial cells mediate larval trapping during secondary *Heligmosomoides polygyrus bakeri* infection. *PLoS Pathog* 19(4), e1011296.

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.
- Matzaraki V, Beno A, Jaeger M, Gresnigt MS, Keur N, Boahen C, Cunha C, Gonçalves SM, Leite L, Lacerda JF, Campos A, van de Veerdonk FL, Joosten L, Netea MG, Carvalho A, Kumar V (2022) Genetic determinants of fungi-induced ROS production are associated with the risk of invasive pulmonary aspergillosis. *Redox Biol* 55, 102391.
- Pavic A, Stojanovic Z, Pekmezovic M, Veljović Đ, O'Connor K, Malagurski I, Nikodinovic-Runic J (2022) Polyenes in medium chain length polyhydroxyalkanoate (mcl-PHA) biopolymer microspheres with reduced toxicity and improved therapeutic effect against *Candida* infection in zebrafish model. *Pharmaceutics* 14(4), 696.
- Pekmezovic M, Dietschmann A, Gresnigt MS (2022) Type I interferons during host-fungus interactions: Is antifungal immunity going viral? *PLOS Pathog* 18(8), e1010740.
- Alonso-Monge R, Gresnigt MS, Román E, Hube B, Pla J (2021) *Candida albicans* colonization of the gastrointestinal tract: A double-edged sword. *PLOS Pathog* 17(7), e1009710.
- Austermeier S, Pekmezović M, Porschitz P, Lee S, Kichik N, Moyes DL, Ho J, Kotowicz NK, Naglik JR, Hube B, Gresnigt MS (2021) Albumin neutralizes hydrophobic toxins and modulates *Candida albicans* pathogenicity. *mBio* 12(3), e0053121.
- Bruno M, Dewi IMW, Matzaraki V, Ter Horst R, Pekmezovic M, Rösler B, Groh L, Röring RJ, Kumar V, Li Y, Carvalho A, Netea MG, Latgé JP, Gresnigt MS, van de Veerdonk FL (2021) Comparative host transcriptome in response to pathogenic fungi identifies common and species-specific transcriptional antifungal host response pathways. *Comput Struct Biotechnol J* 19, 647-663.
- Bruno M, Horst R, Pekmezovic M, Kumar V, Li Y, Netea MG, Latgé JP, Gresnigt MS, van de Veerdonk FL (2021) Data of common and species-specific transcriptional host responses to pathogenic fungi. *Data Brief* 35, 106928.
- d'Enfert C, Kaune AK, Alaban LR, Chakraborty S, Cole N, Delavy M, Kosmala D, Marsaux B, Fróis-Martins R, Morelli M, Rosati D, Valentine M, Xie Z, Emritloll Y, Warn PA, Bequet F, Bougnoux ME, Bornes S, Gresnigt MS, Hube B, Jacobsen ID, Legrand M, Leibundgut-Landmann S, Manichanh C, Munro CA, Netea MG, Queiroz K, Roget K, Thomas V, Thorat C, Van den Abbeele P, Walker AW, Brown AJP (2021) The impact of the fungus-host-microbiota interplay upon *Candida albicans* infections: current knowledge and new perspectives. *FEMS Microbiol Rev* 45(3), fuaa060. (Review)
- Fischer J, Gresnigt MS, Werz O, Hube B, Garscha U (2021) *Candida albicans*-induced leukotriene biosynthesis in neutrophils is restricted to the hyphal morphology. *FASEB J* 35(10), e21820.
- Last A, Maurer M, Mosig AS, Gresnigt MS, Hube B (2021) *In vitro* infection models to study fungal-host interactions. *FEMS Microbiol Rev* 45(5), fuab005. (Review)
- Pekmezovic M, Hovhannisyanyan H, Gresnigt MS, Iracane E, Oliveira-Pacheco J, Siscar-Lewin S, Seemann E, Qualmann B, Kalkreuter T, Müller S, Kamradt T, Mogavero S, Brunke S, Butler G, Gabaldón T, Hube B (2021) *Candida* pathogens induce protective mitochondria-associated type I

interferon signalling and a damage-driven response in vaginal epithelial cells. *Nat Microbiol* 6(5), 643-657.

Pekmezovic M, Kaune AK, Austermeier S, Hitzler SUJ, Mogavero S, Hovhannisyan H, Gabaldón T, Gresnigt MS, Hube B (2021) Human albumin enhances the pathogenic potential of *Candida glabrata* on vaginal epithelial cells. *PLOS Pathog* 17(10), e1010037.

Austermeier S, Kasper L, Westman J, Gresnigt MS (2020) I want to break free - macrophage strategies to recognize and kill *Candida albicans*, and fungal counter-strategies to escape. *Curr Opin Microbiol* 58, 15-23. (Review)

de Graaf DM, Maas RJA, Smeekens SP, Eisenmesser E, Redzic JS, Helsen MM, Powers NE, Li S, Kalabokis V, Gresnigt MS, Joosten LAB, Dinarello CA, van de Veerdonk FL (2020) Human recombinant interleukin-38 suppresses inflammation in mouse models of local and systemic disease. *Cytokine* 137, 155334.

Kumamoto CA, Gresnigt MS, Hube B (2020) The gut, the bad and the harmless: *Candida Albicans* as a commensal and opportunistic pathogen in the intestine. *Curr Opin Microbiol* 56, 7-15. (Review)

*equal contribution #corresponding author