

Publications

Liang SH, Sircaik S, Dainis J, Kakade P, Penumutchu S, McDonough LD, Chen YH, Frazer C, Schille TB, Allert S, Elshafee O, Hänel M, Mogavero S, Vaishnav S, Cadwell K, Belenky P, Perez JC, Hube B, Ene IV, Bennett RJ (2024) The hyphal-specific toxin candidalysin promotes fungal gut commensalism. *Nature* 627(8004), 620-627.

Müller R, König A, Groth S, Zarnowski R, Visser C, Handrianz T, Maufrais C, Krüger T, Himmel M, Lee S, Priest EL, Yildirim D, Richardson JP, Blango MG, Bougnoux ME, Kniemeyer O, d'Enfert C, Brakhage AA, Andes DR, Trümper V, Nehls C, Kasper L, Mogavero S, Gutschmann T, Naglik JR, Allert S, Hube B (2024) Secretion of the fungal toxin candidalysin is dependent on conserved precursor peptide sequences. *Nat Microbiol* 9(3), 669-683.

Stanca SE, Mogavero S, Fritzsche W, Krafft C, Hube B, Popp J (2024) Isotope labeled 3D-Raman confocal imaging and atomic force microscopy study on epithelial cells interacting with the fungus *Candida albicans*. *Nanomedicine* 59, 102750.

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.

Sala A, Ardizzoni A, Spaggiari L, Vaidya N, van der Schaaf J, Rizzato C, Cermelli C, Mogavero S, Krüger T, Himmel M, Kniemeyer O, Brakhage AA, King BL, Lupetti A, Comar M, de Seta F, Tavanti A, Blasi E, Wheeler RT, Pericolini E (2023) A new phenotype in *Candida*-epithelial cell interaction distinguishes colonization-versus vulvovaginal candidiasis-associated strains. *mBio* 14(2), e0010723.

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.

Mogavero S, Höfs S, Lauer AN, Müller R, Brunke S, Allert S, Gerwien F, Groth S, Dolk E, Wilson D, Gutschmann T, Hube B (2022) Candidalysin is the hemolytic factor of *Candida albicans*. *Toxins (Basel)* 14(12), 874.

Richardson JP, Brown R, Kichik N, Lee S, Priest E, Mogavero S, Maufrais C, Wickramasinghe DN, Tsavou A, Kotowicz NK, Hepworth OW, Gallego-Cortés A, Ponde NO, Ho J, Moyes DL, Wilson D, D'Enfert C, Hube B, Naglik JR (2022) Candidalysins are a new family of cytolytic fungal peptide toxins. *mBio* 13(1), e0351021.

Yao X, Höppener C, Schneidewind H, Hoepfener S, Tang Z, Buchholz A, König A, Mogavero S, Diegel M, Dellith J, Turchanin A, Plass W, Hube B, Deckert V (2022) Targeted suppression of peptide degradation in Ag-based surface-enhanced Raman spectra by depletion of hot carriers. *Small* 18(52), e2205080.

Mogavero S, Hube B (2021) *Candida albicans* Interaction with oral epithelial cells: Adhesion, invasion and damage assays. *Methods Mol Biol* 2260, 133-143. (Review)

Mogavero S, Sauer FM, Brunke S, Allert S, Schulz D, Wisgott S, Jablonowski N, Elshafee O, Krüger T, Kniemeyer O, Brakhage AA, Naglik JR, Dolk E, Hube B (2021) Candidalysin delivery to the invasion pocket is critical for host epithelial damage induced by *Candida albicans*. *Cell Microbiol* 23(10), e13378.

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, Hovhannisyanyan 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.

Zhang S, Edwards TN, Mogavero S, Mathers AR, Hube B, Berman J, Bougnoux ME, D'Enfert C, Kaplan DH (2021) Adenosine triphosphate released by *Candida albicans* is associated with reduced skin infectivity. *J Invest Dermatol* 141(9), 2306-2310.

König A, Müller R, Mogavero S, Hube B (2020) Fungal factors involved in host immune evasion, modulation and exploitation during infection. *Cell Microbiol* 23(1), e13272. (Review)

Ruben S, Garbe E, Mogavero S, Albrecht-Eckardt D, Hellwig D, Häder A, Krüger T, Gerth K, Jacobsen ID, Elshafee O, Brunke S, Hünninger 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.

Chu H, Duan Y, Lang S, Jiang L, Wang Y, Llorente C, Liu J, Mogavero S, Bosques-Padilla F, Abalde JG, Vargas V, Tu XM, Yang L, Hou X, Hube B, Stärkel P, Schnabl B (2019) The *Candida albicans* exotoxin Candidalysin promotes alcohol-associated liver disease. *J Hepatol* 72(3), 391-400.

Pekmezovic M, Mogavero S, Naglik JR, Hube B (2019) Host-pathogen interactions during female genital tract infections. *Trends Microbiol* 27(12), 982-996. (Review)

Allert S*, Förster TM*, Svensson C-M, Richardson JP, Pawlik T, Hebecker B, Rudolphi S, Juraschitz M, Schaller M, Blagojevic M, Morschhäuser J, Figge MT, Jacobsen ID, Naglik JR, Kasper L, Mogavero S, Hube B; *authors contributed equally (2018) *Candida albicans*-induced epithelial damage mediates translocation through intestinal barriers. *mBio* 9(3), e00915.

Lazić J, Ajdačić V, Vojnovic S, Zlatović M, Pekmezovic M, Mogavero S, Opsenica I, Nikodinovic-Runic J (2018) Bis-guanylhydrazones as efficient anti-*Candida* compounds through DNA interaction. *Appl Microbiol Biotechnol* 102(4), 1889-1901.

Richardson JP, Mogavero S, Moyes DL, Blagojevic M, Krüger T, Verma AH, Coleman BM, De La Cruz Diaz J, Schulz D, Ponde NO, Carrano G, Kniemeyer O, Wilson D, Bader O, Enoiu SI, Ho J, Kichik N, Gaffen SL, Hube B, Naglik JR (2018) Processing of *Candida albicans* Ece1p is critical for Candidalysin maturation and fungal virulence. *mBio* 9(1), e02178-17.

Westman J, Moran G, Mogavero S, Hube B, Grinstein S (2018) *Candida albicans* hyphal expansion causes phagosomal membrane damage and luminal alkalization. *mBio* 9(5), e01226-18.

Brunke S, Mogavero S, Kasper L, Hube B (2016) Virulence factors in fungal pathogens of man. *Curr Opin Microbiol* 32, 89-95. (Review)

Fogli S, Mogavero S, Egan CG, Del Re M, Danesi R (2016) Pathophysiology and pharmacological targets of VEGF in diabetic macular edema. *Pharmacol Res* 103, 149-157.

Förster TM, Mogavero S, Dräger A, Graf K, Polke M, Jacobsen ID, Hube B (2016) Enemies and brothers in arms: *Candida albicans* and gram-positive bacteria. *Cell Microbiol* 18(12), 1709-1715. (Review)

Höfs S, Mogavero S, Hube B (2016) Interaction of *Candida albicans* with host cells: virulence factors, host defense, escape strategies, and the microbiota. *J Microbiol* 54(3), 149-169. (Review)

Moyes DL*, Wilson D*, Richardson JP*, Mogavero S*, Tang SX, Wernecke J, Höfs S, Gratacap RL, Robbins J, Runglall M, Murciano C, Blagojevic M, Thavaraj S, Förster TM, Hebecker B, Kasper L, Vizcay G, Iancu SI, Kichik N, Häder A, Kurzai O, Luo T, Krüger T, Kniemeyer O, Cota E, Bader O, Wheeler RT, Gutschmann T, Hube B, Naglik JR (2016) Candidalysin is a fungal peptide toxin critical for mucosal infection. *Nature* 532(7597), 64-68.

Antonuzzo L, Giommoni E, Pastorelli D, Latiano T, Pavese I, Azzarello D, Aieta M, Pastina I, Di Fabio F, Bertolini A, Corsi DC, Mogavero S, Angelini V, Pazzagli M, Di Costanzo F (2015) Bevacizumab plus XELOX as first-line treatment of metastatic colorectal cancer: The OBELIX study. *World J Gastroenterol* 21(23), 7281-7288.

Lavorini F, Chellini E, Innocenti M, Campi G, Egan CG, Mogavero S, Fontana GA (2014) A crossover randomized comparative study of zofenopril and ramipril on cough reflex and airway inflammation in healthy volunteers. *Cough* 10(1), 7.

Ramírez-Zavala B, Mogavero S, Schöller E, Sasse C, Rogers PD, Morschhäuser J (2014) SAGA/ADA complex subunit Ada2 is required for Cap1- but not Mrr1-mediated upregulation of the *Candida albicans* multidrug efflux pump MDR1. *Antimicrob Agents Chemother* 58(9), 5102-5110.

Savi L, Mogavero S, Egan CG (2014) Efficacy and pharmacokinetic activity of frovatriptan compared to rizatriptan in patients with moderate-to-severe migraine. *Drug Des Devel Ther* 8, 983-992.

Coppola A, Santoro C, Franchini M, Mannucci C, Mogavero S, Molinari AC, Schinco P, Tagliaferri A, Santoro RC (2013) Emerging issues on comprehensive hemophilia care: preventing, identifying, and monitoring age-related comorbidities. *Semin Thromb Hemost* 39(7), 794-802.

Mogavero S, Tavanti A, Senesi S, Rogers PD, Morschhäuser J (2011) Differential requirement of the transcription factor Mcm1 for activation of the *Candida albicans* multidrug efflux pump MDR1 by its regulators Mrr1 and Cap1. *Antimicrob Agents Chemother* 55(5), 2061-2066.

Sasse C, Schillig R, Dierolf F, Weyler M, Schneider S, Mogavero S, Rogers PD, Morschhäuser J (2011) The transcription factor Ndt80 does not contribute to Mrr1-, Tac1-, and Upc2-mediated fluconazole resistance in *Candida albicans*. *PLOS One* 6(9), e25623.

Tavanti A, Hensgens LA, Mogavero S, Majoros L, Senesi S, Campa M (2010) Genotypic and phenotypic properties of *Candida parapsilosis* sensu strictu strains isolated from different geographic regions and body sites. *BMC Microbiol* 10, 203.

Hensgens LA, Tavanti A, Mogavero S, Ghelardi E, Senesi S (2009) AFLP genotyping of *Candida metapsilosis* clinical isolates: evidence for recombination. *Fungal Genet Biol* 46(10), 750-758.

Campa D, Tavanti A, Gemignani F, Mogavero CS, Bellini I, Bottari F, Barale R, Landi S, Senesi S (2008) DNA microarray based on arrayed-primer extension technique for identification of pathogenic fungi responsible for invasive and superficial mycoses. *J Clin Microbiol* 46(3), 909-915.

*equal contribution #corresponding author