

# Publications

Nychas E<sup>\*</sup>, Marfil-Sánchez A<sup>\*</sup>, Chen X, Mirhakkak M, Li H, Jia Q, Xu A, Nielsen HB, Niedorp M, Loomba R, Ni Y<sup>#</sup>, Panagiotou G<sup>#</sup> (2025) Discovery of robust and highly specific microbiome signatures of non-alcoholic fatty liver disease. *Microbiome* 13(1), 10.

Hedin KA, Mirhakkak MH, Vaaben TH, Sands C, Pedersen M, Baker A, Vazquez-Uribé R, Schäuble S, Panagiotou G<sup>#</sup>, Wellejus A<sup>#</sup>, Sommer MOA<sup>#</sup> (2024) *Saccharomyces boulardii* enhances anti-inflammatory effectors and AhR activation via metabolic interactions in probiotic communities. *ISME Journal* 18(1), wrae212.

Brandt P<sup>\*</sup>, Mirhakkak MH<sup>\*</sup>, Wagner L, Driesch D, Möslinger A, Fänder P, Schäuble S, Panagiotou G, Vylkova S<sup>#</sup> (2023) High-throughput profiling of *Candida auris* isolates reveals clade-specific metabolic differences. *Microbiol Spectr* 11(3), e0049823. (Review)

Mirhakkak MH<sup>\*</sup>, Chen X<sup>\*</sup>, Heinekamp T, Sae-Ong T, Xu LL, Ni Y, Kurzai O, Barber AE, Brakhage AA, Boutin S, Schäuble S<sup>#</sup>, Panagiotou G<sup>#</sup> (2023) Genome-scale Metabolic modeling of *Aspergillus fumigatus* strains reveals growth dependencies on the lung microbiome. *Nat Commun* 14(1), 4369.

Seelbinder B<sup>#</sup>, Lohinai Z<sup>\*</sup>, Vazquez-Uribé R, Brunke S, Chen X, Mirhakkak M, Lopez-Escalera S, Dome B, Megyesfalvi Z, Berta J, Galffy G, Dulka E, Wellejus A, Weiss GJ, Bauer M, Hube B, Sommer MOA, Panagiotou G (2023) *Candida* expansion in the gut of lung cancer patients associates with an ecological signature that supports growth under dysbiotic conditions. *Nat Commun* 14(1), 2673.

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.

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.

Marfil-Sánchez A<sup>\*</sup>, Zhang L<sup>\*</sup>, Alonso-Pernas P, Mirhakkak M, Mueller M, Seelbinder B, Ni Y, Santhanam R, Busch A, Beemelmanns C, Ermolaeva M, Bauer M<sup>#</sup>, Panagiotou G<sup>#</sup> (2021) An integrative understanding of the large metabolic shifts induced by antibiotics in critical illness. *Gut Microbes* 13(1), 1993598.

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<sup>#</sup> (2021) Metabolic modeling predicts specific gut bacteria as key determinants for *Candida albicans* colonization levels. *ISME J* 15(5), 1257-1270.

Dissanayake TK, Schäuble S, Mirhakkak MH, Wu WL, Ng CK, Yip C-Y, García-López A, Wolf T, Yeung ML, Chan KH, Yuen KY, Panagiotou G, To KK (2020) Comparative transcriptomic analysis of rhinovirus and influenza virus infection. *Front Microbiol* 11(1580), 1-13.

\*equal contribution #corresponding author