

LIST OF PUBLICATIONS

1. Alexandra Wallimann, **Mirjam Schenk**. IL-32 as a potential biomarker and therapeutic target in skin inflammation. *Front Immunol*. Volume 14, Sept 01 (2023).
2. Sider Aydin, Javier Pareja, Vivianne M. Schallenberg, Armelle Klopstein, Thomas Gruber, Nicolas Page, Elisa Bouillet, Nicolas Blanchard, Roland Liblau, Jakob Körbelin, Markus Schwaninger, Aaron J. Johnson, **Mirjam Schenk**, Urban Deutsch, Doron Merkler & Britta Engelhardt. Antigen recognition detains CD8+ T cells at the blood-brain barrier and contributes to its breakdown. *Nat Commun*. May 14, 3106; (2023).
3. Diego von Werdt, Bilgi Gungor, Juliana Barreto de Albuquerque, Thomas Gruber, Daniel Zysset, Cheong K C Kwong Chung, Antonia Corrêa-Ferreira, Regina Berchtold, Nicolas Page, **Mirjam Schenk**, John H Kehrl, Doron Merkler, Beat A Imhof, Jens V Stein, Jun Abe, Gleb Turchinovich, Daniela Finke, Adrian C Hayday, Nadia Corazza, Christoph Mueller. Regulator of G-protein signaling 1 critically supports CD8+ TRM cell-mediated intestinal immunity. *Front Immunol*. Apr 20;14:1085895; (2023).
4. Ivanina Mutisheva, Steve Robatel, Lukas Bäriswyl, **Mirjam Schenk**. An Innovative Approach to Tissue Processing and Cell Sorting of Fixed Cells for Subsequent Single-Cell RNA Sequencing. *Int J Mol Sci*. Sep 6;23(18):10233 (2022).
5. Mirela Kremenovic, Alfred A. Chan, Bing Feng, Lukas Bäriswyl, Steve Robatel, Thomas Gruber, Li Tang, Delphine J. Lee, **Mirjam Schenk**. BCG hydrogel promotes CTSS-mediated antigen processing and presentation, thereby suppressing metastasis and prolonging survival in melanoma. *The Journal for ImmunoTherapy of Cancer (JITC)*. Jun;10(6):e004133 (2022).
6. Steve Robatel and **Mirjam Schenk**. Current Limitations and Novel Perspectives in Pancreatic Cancer Treatment. *Cancers*. Feb 16; 4(4):985 (2022)
7. Gruber T, Bäriswyl L, Gertsch J, **Schenk M**. Cannabinoid receptor type-2 in B cells is associated with tumor immunity in melanoma. *Cancers*. Apr 16; 13(8):1934 (2021).
8. Sadozai H, Acharjee A, Eppenberger-Castori S, Gloor B, Gruber T, **Schenk, M** and Eva Karamitopoulou. Distinct Stromal and Immune Features Collectively Contribute to Long-Term Survival in Pancreatic Cancer. *Front. Immunol*. doi: 10.3389/fimmu.2021.643529, Feb 19 (2021).
9. T. Gruber, H. Sadozai, M. Kremenovic, N. Rombini, L. Baeriswyl, F. Maibach, R. L. Modlin, M. Gilliet, D. von Werdt, R. E. Hunger, G. Parisi, G. Abril-Rodriguez, A. Ribas, **M. Schenk**. IL-32 γ potentiates tumor immunity in melanoma. *JCI Insight*. Sep 17;5(18):e138772 (2020).
10. Fabienne F. Maibach, Hassan Sadozai, Morteza S. Jafari, Robert E. Hunger, **Mirjam Schenk**. Tumor-infiltrating lymphocytes and their prognostic value in cutaneous melanoma. *Front. Immunol*. Sep 10;11:2105 (2020).
11. Kremenovic M, Rombini N, Chan AA, Gruber T, Bäriswyl L, Lee DJ, **Schenk M**. Characterization of a Myeloid Activation Signature that Correlates with Survival in Melanoma Patients. *Cancers*. May 31;12(6):E1431 (2020).
12. Bockstahler M, Fischer A, Goetzke CC, Neumaier HL, Sauter M, Kesphol M, Müller AM, Meckes C, Salbach C, **Schenk M**, Heuser A, Landmesser U, Weiner J, Meder B, Lehmann L, Kratzer A, Klingel K, Katus HA, Kaya Z, Beling A. Heart-Specific Immune Responses in an Animal Model of Autoimmune-Related Myocarditis Mitigated by an Immunoproteasome Inhibitor and Genetic Ablation. *Circulation*. Jun 9;141(23):1885-1902 (2020).
13. Mirela Kremenovic, **Mirjam Schenk**, Delphine J. Lee. Clinical and Molecular Insights into BCG Immunotherapy for Melanoma. *JIM*. Mar 4. (2020).
14. Keegan, C., Krutzik, S., **Schenk, M.**, Scumpia, P.O., Lu, J., Pang, Y.L.J., Russell, B.S., Lim, K.S., Shell, S., Prestwich, E., Su, D., Elashoff, D., Hershberg, R.M., Bloom, B.R., Belisle, J.T., Fortune, S., Dedon, P.C., Pellegrini, M., Modlin, R.L., *Mycobacterium tuberculosis* Transfer RNA Induces IL-12p70 via Synergistic Activation of Pattern Recognition Receptors within a Cell Network. *J. Immunol.* 200, 3244–3258 (2018).
15. Sadozai, H., Gruber, T., Hunger, R. E. & **Schenk, M.** Recent Successes and Future Directions in Immunotherapy of Cutaneous Melanoma. *Front. Immunol*. 8, 1617 (2017).
16. Hassan Sadozai, Thomas Gruber, **Mirjam Schenk**. Induction of effective anti-tumor immunity by targeting dendritic cells *in vivo*. Editorial Article. *Madridge Journal of Vaccines*. 1 e1-e4 (2017).
17. **Mirjam Schenk**, Sebabrata Mahapatra, Phuonganh Le, Hee Jin Kim, Aaron W. Choi, Patrick J. Brennan, John T. Belisle

- and Robert L. Human NOD2 Recognizes Structurally Unique Muramyl Dipeptides from Mycobacterium leprae. *Infect Immun.* Aug 19;84(9):2429-38 (2016).
18. Susan Realegeno, Kindra Kelly-Scumpia, Angeline Tilly Dang, Jing Lu, Rosane Teles, **Mirjam Schenk**, Phillip T. Liu, Euzenir N. Sarno, Thomas H. Rea, Maria T. Ochoa, Matteo Pellegrini, Robert L. Modlin. S100A12 is part of the antimicrobial network against Mycobacterium leprae in human macrophages. *PLOS Pathogens*. Jun 29;12(6) (2016).
 19. Cappuccio A, Zollinger R, **Schenk M**, Walczak A, Servant N, Barillot E, Hupé P, Modlin RL, Soumelis V. Combinatorial code governing cellular responses to complex stimuli. *Nat Commun.* Apr 21;6:6847 (2015).
 20. Montoya D, Inkeles MS, Liu PT, Realegeno S, Teles RM, Vaidya P, Munoz MA, **Schenk M**, Swindell WR, Chun R, Zavala K, Hewison M, Adams JS, Horvath S, Pellegrini M, Bloom BR. IL-32 is a molecular marker of a host defense network in human tuberculosis. *Sci Transl Med.* Aug 20;6(250) (2014).
 21. **Mirjam Schenk**, Mario Fabri, Stephan R. Krutzik, Delphine J. Lee, David M. Vu, Peter A. Sieling, Dennis Montoya, Philip T. Liu, Robert L. Modlin. IL-1 β triggers the differentiation of macrophages with enhanced capacity to present mycobacterial antigen to T cells. *Immunology*. Sep 3 (2013).
 22. Teles RM, Graeber TG, Krutzik SR, Montoya D, **Schenk M**, Lee DJ, Komisopoulou E, Kelly-Scumpia K, Chun R, Iyer SS, Sarno EN, Rea TH, Hewison M, Adams JS, Popper SJ, Relman DA, Stenger S, Bloom BR, Cheng G, Modlin RL. Type I interferon suppresses type II interferon-triggered human anti-mycobacterial responses. *Science*. Mar 22;339(6126):1448-53. (2013).
 23. Chung AW, Sieling PA, **Schenk M**, Teles RM, Krutzik SR, Hsu DK, Liu FT, Sarno EN, Rea TH, Stenger S, Modlin RL, Lee DJ. Galectin-3 regulates the innate immune response of human monocytes. *J Infect Dis.* Mar 15;207(6):947-56 (2013).
 24. Parvatiyar K, Zhang Z, Teles RM, Ouyang S, Jiang Y, Iyer SS, Zaver SA, **Schenk M**, Zeng S, Zhong W, Liu ZJ, Modlin RL, Liu YJ, Cheng G. The helicase DDX41 recognizes the bacterial secondary messengers cyclic di-GMP and cyclic di-AMP to activate a type I interferon immune response. *Nat Immunol.* Dec;13(12):1155-61 (2012).
 25. **Schenk M**, Krutzik SR, Sieling PA, Lee DJ, Teles RM, Ochoa MT, Komisopoulou E, Sarno EN, Rea TH, Graeber TG, Kim S, Cheng G, Modlin RL. NOD2 triggers an IL-32 dependent human dendritic cell program in leprosy. *Nature Med.* Mar 25; 18(4):555-63 (2012).
 26. Fabri, M., Stenger, S., Shin, D.-M., Yuk, J.-M., Liu, P.T., Realegeno, S., Lee, H.-M., Krutzik, S.R., **Schenk, M.**, Sieling, P.A., Teles, R., Montoya, D., Iyer, S.S., Bruns, H., Lewinsohn, D.M., Hollis, B.W., Hewison, M., Adams, J.S., Steinmeyer, A., Zuegel, U., Cheng, G., Jo, E.-K., Bloom, B.R., Modlin, R.L., Vitamin D Is Required for IFN-gamma-Mediated Antimicrobial Activity of Human Macrophages. *Sci Transl Med.* 3 (2011).
 27. Weber, B., Saurer, L., **Schenk, M.**, Dickgreber, N., Mueller, C., CX3CR1 defines functionally distinct intestinal mononuclear phagocyte subsets which maintain their respective functions during homeostatic and inflammatory conditions. *Eur. J. Immunol.* 41, 773–779 (2011).
 28. Mudter, J., Yu, J., Zufferey, C., Bruestle, A., Wirtz, S., Weigmann, B., Hoffman, A., **Schenk, M.**, Galle, P.R., Lehr, H.A., Mueller, C., Lohhoff, M., Neurath, M.F., IRF4 Regulates IL-17A Promoter Activity and Controls ROR gamma t-dependent Th17 Colitis In Vivo. *Inflamm. Bowel Dis.* 17, 1343–1358 (2011).
 29. Edfeldt, K., Liu, P.T., Chun, R., Fabri, M., **Schenk, M.**, Wheelwright, M., Keegan, C., Krutzik, S.R., Adams, J.S., Hewison, M., Modlin, R.L., T-cell cytokines differentially control human monocyte antimicrobial responses by regulating vitamin D metabolism. *Proc. Natl. Acad. Sci. U.S.A.* 107, 22593–22598 (2010).
 30. Montoya, D., Cruz, D., Teles, R.M.B., Lee, D.J., Ochoa, M.T., Krutzik, S.R., Chun, R., **Schenk, M.**, Zhang, X., Ferguson, B.G., Burdick, A.E., Sarno, E.N., Rea, T.H., Hewison, M., Adams, J.S., Cheng, G., Modlin, R.L., Divergence of Macrophage Phagocytic and Antimicrobial Programs in Leprosy. *Cell Host Microbe* 6, 343–353 (2009).
 31. Liu, P.T., **Schenk, M.**, Walker, V.P., Dempsey, P.W., Kanchanapoomi, M., Wheelwright, M., Vazirnia, A., Zhang, X., Steinmeyer, A., Zuegel, U., Hollis, B.W., Cheng, G., Modlin, R.L., Convergence of IL-1 beta and VDR Activation Pathways in Human TLR2/1-Induced Antimicrobial Responses. *PLoS One* 4 (2009).
 32. **Schenk, M.**, Belisle, J. T. & Modlin, R. L. TLR2 Looks at Lipoproteins. *Immunity* 31, 847–849. (2009).
 33. Binda, E., Erhart, D., **Schenk, M.**, Zufferey, C., Renzulli, P., Mueller, C., Quantitative isolation of mouse and human intestinal intraepithelial lymphocytes by elutriation centrifugation. *J. Immunol. Methods* 344, 26–34 (2009).
 34. Pittet, V., Juillerat, P., Mottet, C., Felley, C., Ballabeni, P., Burnand, B., Michetti, P., Vader, J.-P., Cohort profile: the Swiss Inflammatory Bowel Disease Cohort Study (SIBDCS). *Int. J. Epidemiol.* 38, 922–931 (2009).
 35. **Schenk, M.** & Mueller, C. The mucosal immune system at the gastrointestinal barrier. *BEST Pract. Res. Clin.*

Gastroenterol. 22, 391–409. (2008).

36. Mudter, J., Amoussina, L., **Schenk, M.**, Yu, J., Bruestle, A., Weigmann, B., Atreya, R., Wirtz, S., Becker, C., Hoffman, A., Atreya, I., Biesterfeld, S., Galle, P.R., Lehr, H.A., Rose-John, S., Mueller, C., Lohoff, M., Neurath, M.F., The transcription factor IFN regulatory factor-4 controls experimental colitis in mice via T cell-derived IL-6. *J. Clin. Invest.* 118, 2415–2426 (2008).
37. **Schenk, M.** & Mueller, C. Adaptations of intestinal macrophages to an antigen-rich environment. *Semin. Immunol.* 19, 84–93. (2007).
38. **Schenk, M.**, Bouchon, A., Seibold, F., Mueller, C., TREM-1-expressing intestinal macrophages crucially amplify chronic inflammation in experimental colitis and inflammatory bowel diseases. *J. Clin. Invest.* 117, 3097–3106 (2007).
39. **Schenk, M.**, Bouchon, A., Birrer, S., Colonna, M., Mueller, C., Macrophages expressing triggering receptor expressed on myeloid cells-1 are underrepresented in the human intestine. *J. Immunol.* 174, 517–524 (2005).