Publication list

Peer-reviewed original publications

1. *Li F[#], Okreglicka KM[#], Piattini F, Pohlmeier LM,* ***Schneider C****, Kopf M.* Gene therapy of Csf2ra-deficiency in mouse fetal monocyte precursors restores alveolar macrophage development and function. **JCI Insight**. 2022 Apr 8. ([#] equal contribution)

2. *O'Leary CE, Sbierski-Kind J, Kotas ME, Wagner JC, Liang HE, Schroeder AW, de Tenorio JC, von Moltke J, Ricardo-Gonzalez RR, Eckalbar WL, Molofsky AB,* ***Schneider C****, Locksley RM*. Bile acid-sensitive tuft cells regulate biliary neutrophil influx. **Sci Immunol.** 2022 Mar 4.

3. *Ruiz-Serrano A, Monné Rodríguez JM, Günter J, Sherman SPM, Jucht AE, Flüchter P, Volkova YL, Pfundstein S, Pellegrini G, Wagner CA,* ***Schneider C****, Wenger RH, Scholz CC.* OTUB1 regulates lung development, adult lung tissue homeostasis and respiratory control. **FASEB J**. 2021 Nov 18.

4. *Gschwend J[#], Sherman SPM[#], Ridder F, Feng X, Liang HE, Locksley RM, Becher B,* ***Schneider C***. Alveolar macrophages rely on GM-CSF from alveolar epithelial type 2 cells before and after birth. **Journal of Experimental Medicine**. 2021 Oct 4. ([#] equal contribution)

5. *Kotas ME, Mroz NM, Koga S, Liang HE, Schroeder AW, Ricardo-Gonzales RR,* ***Schneider C****, Locksley RM*. CISH constrains the tuft–ILC2 circuit to set epithelial and immune tone. **Mucosal Immunol**. 2021 Jul 21.

6. *Piattini F, Matsushita M, Muri J, Bretscher P, Feng X, Freigang S, Dalli J,* ***Schneider C****, Kopf M*. Differential sensitivity of inflammatory macrophages and alternatively activated macrophages to ferroptosis. **European Journal of Immunology**. 2021 Jul 17

7. *Okreglicka KM, Irina I, Pohlmeier LM, Onder L, Feng Q, Kurrer M, Ludewig B, Nielsen P,* ***Schneider C****, Kopf M*. PPARγ is essential for the development of bone marrow erythroblastic island macrophages and splenic red pulp macrophages. **Journal of Experimental Medicine**. 2021 May 3.

8. *O'Leary CE[#], Feng X[#], Cortez VS, Locksley RM,* ***Schneider C***. Interrogating the small intestine tuft cell–ILC2 circuit using in vivo manipulations. **Curr Protoc Immunol**. 2021 Mar 19. ([#] equal contribution)

9. *Maric S, Flüchter P, Guglielmetti LC, Staerkle RF, Sasse T, Restin T,* ***Schneider C****, Holland-Cunz SG, Crenn P, Vuille-Dit-Bille RN*. Plasma citrulline correlates with basolateral amino acid transporter LAT4 expression in human small intestine. **Clin Nutr**. 2020 Oct 9.

10. *Ricardo-Gonzales RR[#],* ***Schneider C***[#]*, Liao C, Lee J, Liang HE, Locksley RM*. Tissue-specific pathways extrude activated ILC2s to disseminate type 2 immunity. **Journal of Experimental Medicine**. 2020 Apr 6. ([#] equal contribution)

11. *Li F, Okreglicka KM, Pohlmeier LM,* ***Schneider C****, Kopf M.* Fetal monocytes possess increased metabolic capacity and replace primitive macrophages in tissue macrophage development. **EMBO J**. 2020 Jan 2.

12. ***Schneider C***[#]*, Lee J[#], Koga S, Ricardo-Gonzales RR, Nussbaum JC, Liang HE, Smith LK, Villeda SA, Locksley RM.* Tissue-resident group 2 innate lymphoid cells differentiate by layered ontogeny and in situ perinatal priming. **Immunity**. 2019 Jun 18. ([#] equal contribution)

13. *Piattini F, Le Foll C, Kisielow J, Rosenwald E, Nielsen P, Lutz T,* ***Schneider C****, Kopf M.* A spontaneous leptin-receptor point mutation in obese mice differentially affects leptin signaling in hypothalamic nuclei and results in a metabolic dysfunction distinct from db/db mice. **Molecular Metabolism**. 2019 Apr 25.

14. *Ricardo-Gonzalez RR[#], Van Dyken SJ[#], **Schneider C**, Lee J, Nussbaum JC, Liang HE, Vaka D, Eckalbar WL, Molofsky AB, Erle DJ, Locksley RM.* Tissue signals imprint ILC2 identity with anticipatory function. **Nature Immunology**. 2018 Sep 10. ([#] equal contribution)

15. *Nadjsombati MS, McGinty JW, Lyons-Cohen MR, Jaffe JB, DiPeso L, **Schneider C**, Miller CN, Pollack JL, Nagana Gowda GA, Fontana MF, Erle DJ, Anderson MS, Locksley RM, Raftery D, von Moltke J.* Detection of succinate by intestinal tuft cells triggers a type 2 innate immune circuit. **Immunity**. 2018 Jul 17.

16. ***Schneider C**, O'Leary CE, von Moltke J, Liang HE, Ang QY, Turnbaugh PJ, Radhakrishnan S, Pellizzon M, Ma A, Locksley RM.* A metabolite-triggered tuft cell-ILC2 circuit drives small intestinal remodeling. **Cell**. 2018 Jul 12.

17. *Singh PB, Pua HH, Happ HC, **Schneider C**, von Moltke J, Locksley RM, Baumjohann D, Ansel KM.* MicroRNA regulation of type 2 innate lymphoid cell homeostasis and function in allergic inflammation. **Journal of Experimental Medicine**. 2017 Nov 9.

18. *Yakimovich A, Huttunen M, Zehnder B, Coulter LJ, Gould V, **Schneider C**, Kopf M, McInnes CJ, Greber UF, Mercer J.* Inhibition of Poxvirus Gene Expression and Genome Replication by Bisbenzimide Derivatives. **Journal of Virology**. 2017 Aug 24.

19. *Nobs SP, Natali S, Pohlmeier L, Okreglicka K, **Schneider C**, Kurrer M, Sallusto F, Kopf M.* PPARγ in dendritic cells and T cells drives pathogenic type-2 effector responses in lung inflammation. **Journal of Experimental Medicine**. 2017 Aug 10.

20. ***Schneider C**[#], Nobs SP[#], Heer AK, Hirsch E, Penninger J, Siggs OM, Kopf M.* Coincidental null mutation of *Csf2ra* in a colony of PI3Kγ$^{-/-}$ mice causes alveolar macrophage deficiency and fatal respiratory viral infection. **Journal of Leukocyte Biology**. 2016 Jul 28. ([#] equal contribution)

21. *Nobs SP, **Schneider C**, Heer AK, Huotari J, Helenius A, Kopf M.* PI3Kγ is critical for dendritic cell-mediated CD8+ T cell priming and viral clearance during influenza virus infection. **PLoS Pathogens**. 2016 Mar 31.

22. *Nobs SP, **Schneider C**, Dietrich MG, Brocker T, Rolink A, Hirsch E, Kopf M.* PI3-Kinase-γ has a distinct and essential role in lung-specific dendritic cell development. **Immunity**. 2015 Oct 6.

23. *Mohapatra A, Van Dyken SJ, **Schneider C**, Nussbaum JC, Liang HE, Locksley RM.* Group 2 innate lymphoid cells utilize the IRF4–IL-9 module to coordinate epithelial cell maintenance of lung homeostasis. **Mucosal Immunology**. 2015 Jul 1.

24. *Matsushita M, Freigang S, **Schneider C**, Conrad M, Bornkamm GM, Kopf M.* T cell lipid peroxidation induces ferroptosis and prevents immunity to infection. **Journal of Experimental Medicine**. 2015 Mar 30.

25. *Banerjee I, Miyake Y, Nobs SP, **Schneider C**, Horvath P, Kopf M, Matthias P, Helenius A, Yamauchi Y.* Influenza A virus uses the aggresome processing machinery for host cell entry. **Science**. 2014 Oct 24.

26. ***Schneider C**, Nobs SP, Kurrer M, Rehrauer H, Thiele C, Kopf M.* Induction of the nuclear receptor PPAR-γ by the cytokine GM-CSF is critical for the differentiation of fetal monocytes into alveolar macrophages. **Nature Immunology**. 2014 Sep 28.

27. ***Schneider C**, Nobs SP, Heer A, Kurrer M, Klinke G, van Rooijen N, Vogel J, Kopf M.* Alveolar macrophages are essential for protection from respiratory failure and associated morbidity following influenza virus infection. **PLoS Pathogens**. 2014 Apr 3.

28. *Kilcher S, Schmidt FI,* ***Schneider C****, Kopf M, Helenius A, Mercer J.* siRNA screen of early poxvirus genes identifies the AAA+ ATPase D5 as the virus genome-uncoating factor. **Cell Host & Microbe**. 2014 Jan 15.

29. *Weber B, Schuster S, Zysset D, Rihs S, Dickgreber N, Schuerch C, Riether C, Siegrist M,* ***Schneider C****, Pawelski H, Gurzeler U, Ziltener P, Genitsch V, Tacchini-Cottier F, Ochsenbein A, Hofstetter W, Kopf M, Kaufmann T, Oxenius A, Reith W, Saurer L, Mueller C*. TREM-1 deficiency can attenuate disease severity without affecting pathogen clearance. **PLoS Pathogens**. 2014 Jan 16

30. *Schmitz I,* ***Schneider C****, Fröhlich A, Frebel H, Christ D, Leonard WJ, Sparwasser T, Oxenius A, Freigang S, Kopf M.* IL-21 restricts virus-driven Treg cell expansion in chronic LCMV infection. **PLoS Pathogens**. 2013 May 16.

31. *Wolf MJ, Hoos A, Bauer J, Boettcher S, Knust M, Weber A, Simonavicius N,* ***Schneider C****, Lang M, Stürzl M, Croner RS, Konrad A, Manz MG, Moch H, Aguzzi A, van Loo G, Pasparakis M, Prinz M, Borsig L, Heikenwalder M.* Endothelial CCR2 signaling induced by colon carcinoma cells enables extravasation via the JAK2-Stat5 and p38MAPK pathway. **Cancer Cell**. 2012 Jul 10.

Reviews and viewpoints

32. ***Schneider C****.* Tuft cell integration of luminal states and interaction modules in tissues. **Pflügers Archiv - Eur J Physiol**. 2021 Oct 11.

33. ***Schneider C***$^{\#}$*, O'Leary CE*$^{\#}$*, Locksley RM.* Regulation of immune responses by tuft cells. **Nat. Rev. Immunol**. 2019 May 21. ($^{\#}$ equal contribution)

34. O'Leary CE$^{\#}$*,* ***Schneider C***$^{\#}$*, Locksley RM.* Tuft cells—systemically dispersed sensory epithelia integrating immune and neural circuitry. **Annu. Rev. Immunol**. 2018 Oct 31. ($^{\#}$ equal contribution)

35. ***Schneider C****, Kopf M.* tEMPting Fate MaYBe the Solution. *Preview.* **Immunity**. 2015 Apr 21.

36. Kopf M, ***Schneider C****, Nobs SP.* The development and function of lung-resident macrophages and dendritic cells. **Nature Immunology**. 2014 Dec 18.