

Dr. Andreas Schlitzer, PhD

Life and Medical Sciences Institute (LIMES)



new Member since 2015

Rheinische Friedrich-Wilhelms-Universität Bonn, Life and Medical Sciences Institute (LIMES)

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Research Expertise

The aim of our research is to understand the complexity and function of dendritic cells and monocytes during health and disease. A major focus lies on the developmental processes leading to the functional specialization of dendritic cell subsets and monocytes. To analyse these highly heterogeneous compartments we use state of the art technologies such as single cell mRNA sequencing, multi-colour fish and advanced flow cytometry. Taken together we are investigating how the development of dendritic cells and monocytes shapes their functional specialization during homeostasis and disease.

Education / Training

Technical University of Munich, Germany, Immunology, PhD, 2012
University of Manchester, UK, Immunology, Master of Science, 2008
University of Marburg, Germany, Molecular Biology, Bachelor of Science, 2007

Appointments / Positions Held

2015 - present
Emmy Noether research group leader, Myeloid cell biology, University of Bonn, Germany
2012 - 2015
Postdoctoral Fellow, Singapore Immunology Network, Singapore

Honors / Awards

2015
Bright Sparks award of the German Immunologists association
2013 - 2016
Junior Investigator fellowship, Biomedical research council, Singapore

10 Most Relevant Publications for Dr. Andreas Schlitzer

1. Paul, F., Arkin, Y., Giladi, A., Jaitin, D. A., Kenigsberg, E., Keren-Shaul, H., ..., **Schlitzer, A.**, et al. (2015). Transcriptional Heterogeneity and Lineage Commitment in Myeloid Progenitors. *Cell*, 1–16.
2. **Schlitzer, A.**, Sivakamasundari, V., Chen, J., Bin Sumatoh, H. R., Schreuder, J., Lum, J., et al. (2015). Identification of cDC1- and cDC2-committed DC progenitors reveals early lineage priming at the common DC progenitor stage in the bone marrow. *Nat Immunol*, 1–13. <http://doi.org/10.1038/ni.3200>
3. **Schlitzer, A.**, McGovern, N., & Ginhoux, F. (2015). Dendritic cells and monocyte-derived cells: Two complementary and integrated functional systems. *Seminars in Cell & Developmental Biology*. <http://doi.org/10.1016/j.semcdb.2015.03.011>
4. Becher, B.* , **Schlitzer, A.***, Chen, J., Mair, F., Sumatoh, H. R., Teng, K. W. W., et al. (2014). High-dimensional analysis of the murine myeloid cell system. *Nat Immunol*, 15(12), 1181–1189. doi:10.1038/ni.3006. Co-first author
5. McGovern*, **Schlitzer, A.***, N., Gunawan, M., Jardine, L., Shin, A., Poyner, E., et al. (2014). Human dermal CD14+ cells are a transient population of monocyte-derived macrophages. *Immunity*, 41(3), 465–477. doi:10.1016/j.immuni.2014.08.006. Co-first author
6. **Schlitzer, A.**, & Ginhoux, F. (2014). Organization of the mouse and human DC network. *Current Opinion in Immunology*, 26, 90–99. doi:10.1016/j.coi.2013.11.002
7. Jakubzick, C., Gautier, E. L., Gibbings, S. L., Sojka, D. K., **Schlitzer, A.**, Johnson, T. E., et al. (2013). Minimal differentiation of classical monocytes as they survey steady-state tissues and transport antigen to lymph nodes. *Immunity*, 39(3), 599–610. doi:10.1016/j.immuni.2013.08.007
8. **Schlitzer, A.**, McGovern, N., Teo, P., Zelante, T., Atarashi, K., Low, D., et al. (2013). IRF4 transcription factor-dependent CD11b+ dendritic cells in human and mouse control mucosal IL-17 cytokine responses. *Immunity*, 38(5), 970–983. doi:10.1016/j.immuni.2013.04.011
9. **Schlitzer, A.**, Heiseke, A. F., Einwächter, H., Reindl, W., Schiemann, M., Manta, C.-P., et al. (2012). Tissue-specific differentiation of a circulating CCR9- pDC-like common dendritic cell precursor. *Blood*, 119(25), 6063–6071. doi:10.1182/blood-2012-03-418400
10. **Schlitzer, A.**, Loschko, J., Mair, K., Vogelmann, R., Henkel, L., Einwächter, H., et al. (2011). Identification of CCR9- murine plasmacytoid DC precursors with plasticity to differentiate into conventional DCs. *Blood*, 117(24), 6562–6570. doi:10.1182/blood-2010-12-326678