



## Felix J. Hartmann

Postdoctoral Research Fellow, Pathology

### Bio

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#### BIO

Dr. Hartmann received a B.Sc. and M.Sc. in Molecular Biotechnology from the University of Heidelberg, Germany and his PhD from the University of Zurich, Switzerland for his research on T cell effector functions in human autoimmune diseases. In 2017, he joined Stanford University as a postdoctoral fellow to study cancer immunology using highly multiplexed tissue imaging technologies. His research combines novel single-cell and imaging proteomic technologies with novel biological assays to reveal interactions of immune cells with their local environment and how this impacts clinical outcome in human cancer. Most recently, he has developed a novel approach that enables analysis of cellular metabolism in individual cells and with spatial resolution.

Dr. Hartmann has been the recipient of a Van Riemsdijk PhD Fellowship, a Swiss National Science Foundation Postdoctoral Scholarship (2016), a Novartis Foundation for biomedical research Postdoctoral Fellowship and a European Molecular Biology Organization (EMBO) LongTerm Postdoctoral Fellowship. He has received numerous awards, including a Distinction Award for his Ph.D. Thesis (2016), the Pfizer Research Award (2016), and a Young Investigator Award from the American Association of Immunologists (2019). In 2020, he has received a Young Investigator Grant from the Helmholtz Association.

#### HONORS AND AWARDS

- AAI Young Investigator Award, American Association of Immunologists (2020)
- EMBO Longterm Fellowship, EMBO (2018-2020)
- Postdoctoral Fellowship, Novartis Foundation for bio-medical Research (2018-19)
- SNF Early.Postdoc Fellowship, Swiss National Science Foundation (2017-2018)
- Distinction Award for Doctoral Thesis, University of Zurich (2016)
- Pfizer Research Prize, Pfizer Foundation (2016)
- Van Riemsdijk PhD Fellowship, Van Riemsdijk Foundation (2012-2014)

#### PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Zurich (2016)
- Bachelor of Science, Ruprecht Karl Universitat Heidelberg (2009)
- Master of Science, Ruprecht Karl Universitat Heidelberg (2011)

#### STANFORD ADVISORS

- Sean Bendall, Postdoctoral Faculty Sponsor

#### LINKS

- Google Scholar Publications: <https://scholar.google.com/citations?user=ElszAVEAAAAJ>

- Twitter: <https://twitter.com/felixjhartmann>

## Research & Scholarship

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### LAB AFFILIATIONS

- Sean Bendall (2/1/2017)

## Publications

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### PUBLICATIONS

- **Single-cell metabolic profiling of human cytotoxic T cells.** *Nature biotechnology*  
Hartmann, F. J., Mrdjen, D. n., McCaffrey, E. n., Glass, D. R., Greenwald, N. F., Bharadwaj, A. n., Khair, Z. n., Verberk, S. G., Baranski, A. n., Baskar, R. n., Graf, W. n., Van Valen, D. n., Van den Bossche, et al  
2020
- **Immune monitoring using mass cytometry and related high-dimensional imaging approaches.** *Nature reviews. Rheumatology*  
Hartmann, F. J., Bendall, S. C.  
2019
- **GM-CSF and CXCR4 define a T helper cell signature in multiple sclerosis.** *Nature medicine*  
Galli, E., Hartmann, F. J., Schreiner, B., Ingelfinger, F., Arvaniti, E., Diebold, M., Mrdjen, D., van der Meer, F., Krieg, C., Nimer, F. A., Sanderson, N., Stadelmann, C., Khademi, et al  
2019
- **Comprehensive Immune Monitoring of Clinical Trials to Advance Human Immunotherapy.** *Cell reports*  
Hartmann, F. J., Babdor, J., Gherardini, P. F., Amir, E. D., Jones, K., Sahaf, B., Marquez, D. M., Krutzik, P., O'Donnell, E., Sigal, N., Maecker, H. T., Meyer, E., Spitzer, et al  
2019; 28 (3): 819
- **A Universal Live Cell Barcoding-Platform for Multiplexed Human Single Cell Analysis.** *Scientific reports*  
Hartmann, F. J., Simonds, E. F., Bendall, S. C.  
2018; 8 (1): 10770
- **High-dimensional single-cell analysis reveals the immune signature of narcolepsy.** *journal of experimental medicine*  
Hartmann, F. J., Bernard-Valnet, R., Quériault, C., Mrdjen, D., Weber, L. M., Galli, E., Krieg, C., Robinson, M. D., Nguyen, X., Dauvilliers, Y., Liblau, R. S., Becher, B.  
2016
- **Multiple sclerosis-associated IL2RA polymorphism controls GM-CSF production in human T-H cells** *NATURE COMMUNICATIONS*  
Hartmann, F. J., Khademi, M., Aram, J., Ammann, S., Kockum, I., Constantinescu, C., Gran, B., Piehl, F., Olsson, T., Codarri, L., Becher, B.  
2014; 5
- **Immune-stimulating antibody conjugates elicit robust myeloid activation and durable antitumor immunity** *NATURE CANCER*  
Ackerman, S. E., Pearson, C. I., Gregorio, J. D., Gonzalez, J. C., Kenkel, J. A., Hartmann, F. J., Luo, A., Ho, P. Y., LeBlanc, H., Blum, L. K., Kimmey, S. C., Luo, A., Nguyen, et al  
2021; 2 (1): 18+
- **An Integrated Multi-omic Single-Cell Atlas of Human B Cell Identity.** *Immunity*  
Glass, D. R., Tsai, A. G., Oliveria, J. P., Hartmann, F. J., Kimmey, S. C., Calderon, A. A., Borges, L. n., Glass, M. C., Wagar, L. E., Davis, M. M., Bendall, S. C.  
2020; 53 (1): 217–32.e5
- **Multiplexed single-cell morphometry for hematopathology diagnostics.** *Nature medicine*  
Tsai, A. G., Glass, D. R., Juntilla, M. n., Hartmann, F. J., Oak, J. S., Fernandez-Pol, S. n., Ohgami, R. S., Bendall, S. C.  
2020; 26 (3): 408–17
- **Scalable Conjugation and Characterization of Immunoglobulins with Stable Mass Isotope Reporters for Single-Cell Mass Cytometry Analysis.** *Methods in molecular biology (Clifton, N.J.)*  
Hartmann, F. J., Simonds, E. F., Vivanco, N. n., Bruce, T. n., Borges, L. n., Nolan, G. P., Spitzer, M. H., Bendall, S. C.

2019; 1989: 55–81

- **High-dimensional single-cell analysis predicts response to anti-PD-1 immunotherapy.** *Nature medicine*  
Krieg, C. n., Nowicka, M. n., Guglietta, S. n., Schindler, S. n., Hartmann, F. J., Weber, L. M., Dummer, R. n., Robinson, M. D., Levesque, M. P., Becher, B. n.  
2018
- **High-Dimensional Single-Cell Mapping of Central Nervous System Immune Cells Reveals Distinct Myeloid Subsets in Health, Aging, and Disease.** *Immunity*  
Mrdjen, D. n., Pavlovic, A. n., Hartmann, F. J., Schreiner, B. n., Utz, S. G., Leung, B. P., Lelios, I. n., Heppner, F. L., Kipnis, J. n., Merkler, D. n., Greter, M. n., Becher, B. n.  
2018; 48 (2): 380–95.e6
- **High Dimensional Cytometry of Central Nervous System Leukocytes During Neuroinflammation.** *Methods in molecular biology (Clifton, N.J.)*  
Mrdjen, D. n., Hartmann, F. J., Becher, B. n.  
2017; 1559: 321–32
- **CyTOF workflow: differential discovery in high-throughput high-dimensional cytometry datasets.** *F1000Research*  
Nowicka, M. n., Krieg, C. n., Weber, L. M., Hartmann, F. J., Guglietta, S. n., Becher, B. n., Levesque, M. P., Robinson, M. D.  
2017; 6: 748
- **The end of gating? An introduction to automated analysis of high dimensional cytometry data** *EUROPEAN JOURNAL OF IMMUNOLOGY*  
Mair, F., Hartmann, F. J., Mrdjen, D., Tosevski, V., Krieg, C., Becher, B.  
2016; 46 (1): 34-43
- **The Cytokine GM-CSF Drives the Inflammatory Signature of CCR2(+) Monocytes and Licenses Autoimmunity** *IMMUNITY*  
Croxford, A. L., Lanzinger, M., Hartmann, F. J., Schreiner, B., Mair, F., Pelczar, P., Clausen, B. E., Jung, S., Greter, M., Becher, B.  
2015; 43 (3): 502-514
- **HLA Class II tetramers reveal tissue-specific regulatory T cells that suppress T-cell responses in breast carcinoma patients.** *Oncoimmunology*  
Schmidt, H. H., Ge, Y. n., Hartmann, F. J., Conrad, H. n., Klug, F. n., Nittel, S. n., Bernhard, H. n., Domschke, C. n., Schuetz, F. n., Sohn, C. n., Beckhove, P. n.  
2013; 2 (6): e24962
- **In vitro evaluation of liposomes containing bio-enhancers for the oral delivery of macromolecules** *EUROPEAN JOURNAL OF PHARMACEUTICS AND BIOPHARMACEUTICS*  
Parmentier, J., Hartmann, F. J., Fricker, G.  
2010; 76 (3): 394-403