

## **Gina J. Fiala, Dr. rer. nat.**

**Institution:** Department of Immunology, Biology III, Faculty of Biology, University of Freiburg  
**Contact:** Email: gina.fiala@biologie.uni-freiburg.de  
**Position:** Group Leader

### **Academic education including academic degrees**

2001 – 2008 Diploma Studies in Biology (Molecular Immunology, Molecular Biology & Genetics, Microbiology, Gender Studies), University of Freiburg, Germany

### **Scientific graduation**

2009 – 2015 PhD Thesis in Molecular Immunology, Max Planck Institute of Immunology & Epigenetics and University of Freiburg, Germany  
(Supervisor: Prof. Wolfgang Schamel)

### **Employment**

Since 2024 Group Leader, Department of Immunology, University of Freiburg  
2023 – 2024 Post-doctoral Fellow, Laboratory of Lymphocyte Activation, Center for Biological Signalling Studies BIOSS, University of Freiburg, Germany; PI: Prof. Susana Minguet  
2021 – 2023 Science Manager for Natural and Life Sciences, Freiburg Institute for Advanced Studies, University of Freiburg, Germany  
2020 – 2021 Post-doctoral Fellow Come & STAY, Laboratory of Lymphocyte Activation, Center for Biological Signalling Studies BIOSS, University of Freiburg, Germany; PI: Dr. Susana Minguet  
2018 – 2020 Post-doctoral EMBO and Marie Curie Fellow, T Cell Differentiation & Tumour Targeting group, Instituto de Medicina Molecular, Universidade de Lisboa, Portugal; PI: Prof. Bruno Silva-Santos  
2015 – 2017 Post-doctoral Fellow, Laboratory of Lymphocyte Activation, Center for Biological Signalling Studies BIOSS, University of Freiburg, Germany, PIs: Dr Susana Minguet and Prof. Wolfgang Schamel

### **Other activities, awards and honours**

2024 CORA (Coaching Women for Research and Academia) Fellow, University of Freiburg, Germany  
2020 Come & STAY! Fellowship, University of Freiburg, Germany  
2017 EMBO post-doctoral Long-Term Fellowship  
2017 Marie Skłodowska-Curie European Fellowship, European Commission  
2016 Prize for the best PhD Thesis in Immunology, Faculty of Biology, University of Freiburg, Society for the Promotion of Immunology in Freiburg and in Memory of Georges Köhler e.V. (GEFI)  
2009 Spemann Graduate School for Biology and Medicine Fellow, University of Freiburg (2009-2015)

## Ten most important publications

1. Sumaria N\*, **Fiala GJ**<sup>#</sup>, Inácio D, Curado-Avelar M, Cachucho A, Pinheiro R, Wiesheu R, Kimura S, Courtois L, Blankenhaus B, Darrigues J, Suske T, Almeida ARM, Minguet S, Asnafi V, Lhermitte L, Mullighan CG, Coffelt SB, Moriggl R, Barata JT, Pennington DJ<sup>#</sup>, Silva-Santos B. *Perinatal thymic-derived CD8ab-expressing  $\gamma\delta$  T cells are innate IFN- $\gamma$  producers that expand in IL-7R/STAT5B-driven neoplasms*. **Nat Immunol.** **2024** May 27. doi: 10.1038/s41590-024-01855-4.
2. Herr LA, **Fiala GJ**, Sagar, Schaffer AM, Hummel JF, Zintchenko M, Raute K, Velasco Cárdenas RMH, Heizmann B, Ebert K, Fehrenbach K, Janowska I, Chan S, Tanriver J, Minguet S, Schamel WW. *Kidins220 and Aiolos promote thymic iNKT cell development by reducing TCR signals*. **Sci Adv.** **2024** Mar 15;10(11):eadj2802. doi: 10.1126/sciadv.adj2802.
3. Schaffer AM, **Fiala GJ**, Hils M, Natali E, Babrak L, Herr LA, Romero-Mulero MC, Cabezas-Wallscheid N, Rizzi M, Miho E, Schamel WWA, Minguet S. *Kidins220 regulates the development of B cells bearing the  $\lambda$  light chain*. **Elife.** **2024** Jan 25;13:e83943. doi:10.7554/eLife.83943.
4. Papatto PH, Yilmaz B, Pimenta G, Mensurado S, Cunha C, **Fiala GJ**, Gomes da Costa D, Gonçalves-Sousa N, Chan BHK, Blankenhaus B, Domingues RG, Carvalho T, Hepworth MR, Macpherson AJ, Allen JE, Silva-Santos B. *Maternal  $\gamma\delta$  T cells shape offspring pulmonary type 2 immunity in a microbiota-dependent manner*. **Cell Rep.** **2023** Feb 28;42(2):112074. doi: 10.1016/j.celrep.2023.112074.
5. Lopes N, McIntyre C, Martin S, Raverdeau M, Sumaria N, Kohlgruber AC, **Fiala GJ**, Agudelo LZ, Dyck L, Kane H, Douglas A, Cunningham S, Prendeville H, Loftus R, Carmody C, Pierre P, Kellis M, Brenner M, Argüello RJ, Silva-Santos B, Pennington DJ, Lynch L. *Distinct metabolic programs established in the thymus control effector functions of  $\gamma\delta$  T cell subsets in tumor microenvironments*. **Nat Immunol.** **2021** Feb;22(2):179-192. doi: 10.1038/s41590-020-00848-3.
6. Hartl FA, Beck-Garcia E, Woessner NM, Flachsmann LJ, Cárdenas RMV, Brandl SM, Taromi S, **Fiala GJ**, Morath A, Mishra P, Yousefi OS, Zimmermann J, Hoefflin N, Köhn M, Wöhrl BM, Zeiser R, Schweimer K, Günther S, Schamel WW, Minguet S. *Noncanonical binding of Lck to CD3 $\epsilon$  promotes TCR signaling and CAR function*. **Nat Immunol.** **2020** Aug;21(8):902-913. doi: 10.1038/s41590-020-0732-3.
7. **Fiala GJ**<sup>#</sup>, Schaffer AM, Merches K, Morath A, Swann J, Herr L, Hils M, Esser C, Minguet S, Schamel WWA. *Proximal Lck Promoter-Driven Cre Function is Limited in Neonatal and Inefficient in Adult gd T Cell Development*. **J Immunol.** **2019** Jul 15;203(2):569-579. doi: 10.4049/jimmunol.1701521.
8. **Fiala GJ**, Prutek F, Janowska I, Plum T, Sprenger A, Hobeika E, Cesca F, Reth M, Dengjel J, Brummer T, Minguet S, Schamel WWA. *Kidins220/ARMS binds to the B cell antigen receptor and regulates B cell development and activation*. **J Exp Med.** **2015** Sep 21;212(10):1693-708. doi: 10.1084/jem.20141271.
9. **Fiala GJ**<sup>#</sup>, Lücke J<sup>#</sup>, Huber S. Pro- and antitumorogenic functions of  $\gamma\delta$  T cells. **Eur J Immunol.** **2024** May 27:e2451070. doi: 10.1002/eji.202451070.
10. **Fiala GJ**<sup>\*</sup>, Gomes AQ<sup>\*</sup>, Silva-Santos B. From thymus to periphery: Molecular basis of effector  $\gamma\delta$ -T cell differentiation. **Immunol Rev.** **2020** Nov;298(1):47-60. doi: 10.1111/imr.12918.

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