Minguet, Susana, Professor Dr. rer. nat.

Institution	Department of Synthetic Immunology, Faculty of Biology, University of Freiburg, Signalling Research Centres BIOSS and CIBSS. Schänzlestr. 18, 79104 Freiburg
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Position	Head of the Department of Synthetic Immunology, University of Freiburg

University training and degree

1992 - 1997	Study of Chemistry (Biochemistry and Molecular Biology) in Madrid, Spain

Advanced academic qualifications

2018	Habilitation in Immunology; Albert-Ludwigs Universität Freiburg
2002	Doctorate: PhD Thesis in Molecular Biology, Universidad Autónoma de Madrid, Spain

Postgraduate professional career

2023	Head of the Department of Synthetic Immunology, University of Freiburg
2018 - 2023	Group Leader, Department of Immunology, University of Freiburg
2011 - 2017	Junior Group Leader, Department of Immunology, University of Freiburg
2009 - 2011	Senior Research Fellow at CNIC, Madrid, Spain (Ramón y Cajal fellow)
2008 - 2009	Postdoctorate, CNIC, Madrid, Spain
2002 - 2007	Postdoctorate, MPI of Immunobiology, Freiburg

Academic distinctions

2023	Apointed W3 Heisenberg Professor University of Freiburg.
2022	Granted Heisenberg program, DFG.
2021-2022	Call for W2/W3 professorships in Bonn, Frankfurt, Erlangen-Nürnberg
2021	Novartis Prize for Therapy-Relevant Immunological Research by the GermanSociety for Immunology and the Novartis Foundation.
Since 2018	Member in the Board of Directors of SFB1160
2016 - 2018	Selected Mentee of the EIRA Mentoring program and the Freiburg Initiative for Remarkable women (FIRE) at the Medical Center University of Freiburg
2016	Baden-Württemberg Stiftung Eliteprogramm
2012	VIII Prize of Health Sciences from Fundación Caja Rural de Granada to the best original investigation of 2012
2009	Award of a 5-year tenure track position, Ramón y Cajal International Program of the Spanish Ministry of Science and Innovation
2003	Prize to the best scientific publication of 2003 from Fundación Médica Mutua Madrileña
1997	PhD Fellowship from the Spanish Ministry of Science and Innovation

Engagement in the Research System

Organization of scientific meetings:

2023	German and French society of Immunology (SFI&DGFI), Strasbourg 26-29 September 2023. 1000 participants
2023	International Symposium on Structural Immunity, Freiburg, 28th of March 2023. 100 participants
2022	International Symposium -From Paradigms to Paradoxes in Immunity and Immunopathology (PPII). Freiburg, 6-8th October 2022. 300 participants.

Committees and faculty responsibilities:

Since 2023	Steering Board Member of the Center of Chronic Immunodeficiency (CCI)
2021-2022	Deputy Director of the Spemann Graduate School SGBM

Since 2022	Gender Equality Officer, Faculty of Biology
Since 2021	Member of the Board of Directors of the Spemann Graduate School SGBM
Since 2021	Mentor at the Postdoc career support Launchpad Programme CIBSS
Since 2020	Selected Mentor of the EIRA Mentoring program and the Freiburg Initiative for Remarkable women (FIRE) at the Medical Center University of Freiburg
Since 2019	Steering Board Member of CRC1479
Since 2019	Steering Board Member of Excellent cluster BIOSS
Since 2018	Steering Board Member of CRC1160
Since 2016	Member of the Center of Chronic Immunodeficiency (CCI), Freiburg
2016-2021	Deputy Radiation Officer, Faculty of Biology
2014-2015	Mentor at the mentoring program of the Faculty of Biology

Publications (selection)

1. **Minguet S**, Maus MV, Schamel WW. From TCR fundamental research to innovative chimeric antigen receptor design. *Nat Rev Immunol*. 2025 Mar;25(3):212-224. doi: 10.1038/s41577-024-01093-7
2. 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 λ light chain. *Elife. 2024* doi: 10.7554/eLife.83943.
3. Velasco Cárdenas RM, Brandl SM, Meléndez AV, Schlaak AE, Buschky A, Peters T, Beier F, Serrels B, Taromi S, Raute K, Hauri S, Gstaiger M, Lassmann S, Huppa JB, Boerries M, Andrieux G, Bengsch B, Schamel WW, **Minguet S**. Harnessing CD3 diversity to optimize CAR T cells. *Nat Immunol. 2023* doi: 10.1038/s41590-023-01658-z
4. Raute K, Strietz J, Parigiani MA, Andrieux G, Thomas OS, Kistner KM, Zintchenko M, Aichele P, Hofmann M, Zhou H, Weber W, Boerries M, Swamy M, Maurer J, **Minguet, S.** Breast Cancer Stem Cell-Derived Tumors Escape from γδ T-cell Immunosurveillance *In Vivo* by Modulating γδ T-cell Ligands. Cancer Immunol Res. 2023 doi: 10.1158/2326-6066.CIR-22-0296.
5. Novel lectin-based chimeric antigen receptors target Gb3-positive tumour cells. Meléndez AV, Velasco Cárdenas RM, Lagies S, Strietz J, Siukstaite L, Thomas OS, Tomisch J, Weber W, Kammerer B, Römer W§, **Minguet S**§. *Cell Mol Life Sci 2022* doi: 10.1007/s00018-022-04524-7. §Shared senior author.
6. Noncanonical binding of Lck to CD3ε promotes TCR signaling and CAR function. Hartl FA, Beck-Garcìa 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**§. *Nat Immunol 2020* doi: 10.1038/s41590-020-0732-3. Highlighted in the cover page of the issue. §Shared senior author.
7. **Minguet S**§, Kläsener K, Schaffer AM, Fiala GJ, Osteso-Ibánez T, Raute K, Navarro-Lérida I, Hartl FA, Seidl M, Reth M, Del Pozo MA. Caveolin-1-dependent nanoscale organization of the BCR regulates B cell tolerance. *Nat Immunol 2017* doi: 10.1038/ni.3813. §Corresponding author.
8. Schönle A, Hartl FA, Mentzel J, Rauch KS, Wohlfeil SA, Nöltner T, Hechinger AK, Melchinger W, Fehrenbach K, Guadamillas MC, Prestipino A, Follo M, Prinz G, Ruess AK, Pfeifer D, Pozo MA, Schmitt-Graeff A, Duyster J, Blazar BR, Schachtrup K, **Minguet S§** and Zeiser R§. Caveolin-1 regulates TCR signal strength and regulatory T cell differentiation into alloreactive T cells *Blood* 2016 doi: 10.1182/blood-2015-09-672428. §Shared corresponding author.
9. Goetz, J.G*., **S. Minguet***, I. Navarro-Lérida, J.J. Lazcano, R. Samaniego, E. Calvo, M. Tello, T. Osteso-Ibáñez, T. Pellinen, A. Echarri, A. Cerezo, A.J. P. Klein-Szanto, R. Garcia, P.J. Keely, P. Sánchez-Mateos, E. Cukierman, and M.A. Del Pozo. Biomechanical Remodeling of the Microenvironment by Stromal Caveolin-1 Favors Tumor Invasion and Metastasis. *Cell* 2011 doi: 10.1016/j.cell.2011.05.040. *Shared first authorship.
10. **Minguet, S.**, M. Swamy, B. Alarcón, I.F. Luescher, and W.W.A. Schamel. Full activation of the T cell receptor requires both clustering and conformational changes at CD3. *Immunity* 2007 doi: 10.1016/j.immuni.2006.10.019.

Complete list of publications: https://pubmed.ncbi.nlm.nih.gov/?term=MINGUET%2C+S&sort=date