

Curriculum Vitae

Susana Minguet

Personal Data

Title	Prof. Dr.
First name	Susana
Name	Minguet
Current position	Heisenberg Professor (W3)
Current institution(s)/site(s), country	Department of Synthetic Immunology, Institute of Biology III, University of Freiburg, Germany
Identifiers/ORCID	0000-0001-8211-5538

Qualifications and Career

Stages	Periods and Details
Degree programme	1992-1997, Master Degree in Chemical Sciences, Biochemistry and Molecular Biology), Universidad Autónoma de Madrid (UAM), Madrid, Spain
Doctorate	2002, MAR Marcos, Dr. rer. nat., Immunology, Centro de Biología Molecular Severo Ochoa (CBM-SO) and Universidad Autónoma de Madrid (UAM), Madrid, Spain
Stages of academic/professional career	2023: Appointed Heisenberg Professor for Synthetic Immunology, University of Freiburg 2018-2022: Group Leader (Tenured), Department of Immunology, University of Freiburg 2018: Habilitation in Immunology, University of Freiburg 2011-2017: Junior Group Leader, Department of Immunology, University of Freiburg 2008-2011: Senior Researcher (Ramón & Cajal Fellow), CNIC, Madrid, Spain 2003-2007: Postdoc position at Max Planck Institute of Immunobiology, Freiburg

Supplementary Career Information

3 children; born 2008, 2010, 2012; parental leave: 5/2008-10/2008, 5/2010-10/2010, 4/2012-11/2012

Activities in the Research System

Organization of scientific meetings:

- 2025 Immunoreceptor Signaling and Therapeutic Applications, AWAJI, JAPAN. November 2025, 11-14, Cold Spring Harbor Asia. 300 participants
- 2024 Lymphocyte Antigen Receptor Signaling, Siena 1-5 June 2024, 120 participants
- 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 2024 Steering Board Member of the Center for Cell and Gene Therapy
 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 BIOS
 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

Editorial Boards: Front Immunology

Reviewer activities: Immunity, Blood, PLOSone., Nat Immunol., Science a.o.

Teaching:

2019, 2020 Invited lecturer at the Bed and Bench Symposium Immunology – Freiburg, Strasburg, Basel
 Since 2019 Co-organization and Lecturer of the “Master of Education Biology, Schwerpunkt Biotechnologie”
 Since 2012 Lecturer within the “Vertiefungsmodul Immunologie I”, Bachelor of Biology, University of Freiburg
 Since 2014 Organization and Lecturer of the “Orientierungsmodul Immunology“, Master of Immunobiology, University of Freiburg
 2015 Didactics course “Fit für die Lehre: Hochschuldidaktische Grundlage I und II”. Module-I for the Baden-Württemberg certification in Hochschuldidaktische (HDZ)
 2012-2013 Co-organization and Lecturer of the “Orientierungsmodul Immunology & Microbiology“, Master of Biology, University of Freiburg
 2004, 2005 Co-organizer of the Advanced Immunology experimental courses, University of Freiburg

Supervision of Researchers in Early Career Phases

I am constantly supervising B.Sc., M.Sc., MD and PhD students during internships and their experimental thesis. Please find enclosed a list of researchers during early career stages (PhDs) I supervised, or I am currently supervising.

	Degree	Duration	Subsequent career path
Annabelle Buschky	PhD	2023-on going	
Marina Zintchenko	PhD	2021-on going	
Simon Brandl	PhD	2020-on going	
Nadine Wossner	PhD, Suma cum laude	2020-2024	Postdoctoral researcher in my lab
Misol Velasco	PhD, Magna cum laude	2018-2023	Researcher in BioNTech
Anna-Maria Schaffer	PhD, Magna cum laude	2016-2021	Postdoctoral researcher in my lab
Katrin Raute	PhD, Suma cum laude	2015-2020	Product Manager UP. SIGHT at CYTENA
Frederike Hartl	PhD, Magna cum laude	2012-2017	Senior Scientist / Project Lead BioCopy GmbH
Esmeralda Beck	PhD, Magna cum laude	2011-2014	Market Access Manager, Roche Pharma

I have supervised or I am currently supervising 25 M.Sc. students (including 4 awarded with the Alumni Price Faculty Biology) and 6 B.Sc. students

Scientific Results

Category A

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. [§]Shared senior author
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 $\gamma\delta$ T-cell Immunosurveillance *In Vivo* by Modulating $\gamma\delta$ 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 CD3 ϵ promotes TCR signaling and CAR function. 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, Wöhr 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-Ibáñez 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, Wohlfel 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>

Category B

Patent: "Chimeric Antigen Receptors, Vectors Coding for Such Receptors and Their Use in the Modification of T cells" (WO2020193506).

Academic Distinctions

2023	Appointed 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 German Society for Immunology and the Novartis Foundation.
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

Further achievements:

2023	W3 Professor for Molecular Immunology and Immunotherapy (Bonn) - declined
2023	W3 Heisenberg Professor for Tumorimmunology (Frankfurt) - declined
2021	W2 Professor for Integrated Immunology (Erlangen) - declined

Data protection and consent to the processing of optional data

If you provide voluntary information (marked as optional) in this CV, your consent is required. Please confirm your consent by checking the box below.

☒ I expressly consent to the processing of the voluntary (optional) information, including “special categories of personal data” in connection with the DFG’s review and decision-making process regarding my proposal. This also includes forwarding my data to the external reviewers, committee members and, where applicable, foreign partner organisations who are involved in the decision-making process. To the extent that these recipients are located in a third country (outside the European Economic Area), I additionally consent to them being granted access to my data for the above-mentioned purposes, even though a level of data protection comparable to EU law may not be guaranteed. For this reason, compliance with the data protection principles of EU law is not guaranteed in such cases. In this respect, there may be a violation of my fundamental rights and freedoms and resulting damages. This may make it more difficult for me to assert my rights under the General Data Protection Regulation (e.g. information, rectification, erasure, compensation) and, if necessary, to enforce these rights with the help of authorities or in court.

I may **revoke** my consent in whole or in part at any time – with effect for the future, freely and without giving reasons – vis-à-vis the DFG (postmaster@dfg.de). The lawfulness of the processing carried out up to that point remains unaffected. Insofar as I transmit “special categories of personal data” relating to third parties, I confirm that the necessary legitimation under data protection law exists (e.g. based on consent).

I have taken note of the DFG’s Data Protection Notice relating to research funding, which I can access at www.dfg.de/privacy_policy and I will forward it to such persons whose data the DFG processes as a result of being mentioned in this CV.