

BUNSE, THERESA, NEE SCHUMACHER, DR. RER. NAT.

GENERAL INFORMATION



Post Doc

Heidelberg University, Mannheim Medical Faculty
Department of Neurology, Theodor-Kutzer-Ufer 1-3,
68167 Mannheim, Germany

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ACADEMIC EDUCATION & QUALIFICATION

Year(s)	Education
2009	Master Thesis: Characterisation of hematopoietic progenitor kinase 1 (HPK1) as a negative regulator of inflammation and immune responses. PI: Prof. Friedemann Kiefer, PhD Max Planck Institute for Molecular Biomedicine, Münster, Germany
2007-2009	Master of Science in Molecular Biomedicine, University of Münster, Germany
2007	Bachelor Thesis: Chitosanase Activity of Human Chitotriosidase. PI: Prof. Bruno Moerschbacher, PhD University of Münster, Germany
2004-2007	Bachelor of Science in Biosciences, University of Münster, Germany

SCIENTIFIC EDUCATION & QUALIFICATION

Year(s)	Education
2014	Promotion: Brain Tumor Immunology. Thesis: A cancer immunotherapy approach targeting mutant isocitrate dehydrogenase 1. PI: Prof. Michael Platten, MD German Cancer Research Center and University of Heidelberg, Heidelberg, Germany

PROFESSIONAL EXPERIENCE

Year(s)	Experience
Since 2018	Team Leader Brain Tumor Immunotherapy Models, CCU Neuroimmunology and Brain Tumor Immunology, DKFZ
Since 2016	Postdoc, Neurology Clinic, University Hospital Mannheim
Since 2014	Postdoc, CCU Neuroimmunology and Brain Tumor Immunology, DKFZ

OTHER QUALIFICATIONS/ROLES/RESPONSIBILITIES

Year(s)	Qualifications/Roles/Responsibilities
2022	Vision Zero Innovation Award 2022, Awarded by Vision Zero e.V.
2019	Herbert-Fischer-Prize for Neuroimmunology 2019, Awarded by the German Society for Immunology
2016	Bayer Early Excellence in Science Award 2016, category medicine, awarded by the Bayer Foundation
2016	Presentation Prize of the 18 th NOA annual congress, awarded by the Neurooncology Working Group (NOA)
2015	Walther and Christine Richtzenhain Prize 2015, awarded by the Walther and Christine Richtzenhain Foundation
2014	Dr. Holger Müller Prize 2014 awarded by the Dr. Holger Müller and Care-for-Rare Foundations
2014	CIMT 2014 Poster Award, category new targets and new leads, awarded by the Association of Cancer Immunotherapy (CIMT)

SELECTED PUBLICATIONS

1. Turco V, Pfliederer K, Hunger J, Horvat NK, Karimian-Jazi K, Schregel K, Fischer M, Brugnara G, Jähne K, Sturm V, Streibel Y, Nguyen D, Altamura S, Agardy DA, Soni SS, Alsasa A, Bunse T, Schlesner M, Muckenthaler MU, Weissleder R, Wick W, Heiland S, Vollmuth P, Bendszus M, Rodell CB, Breckwoldt MO, Platten M. T cell-independent eradication of experimental glioma by intravenous TLR7/8-agonist-loaded nanoparticles. **Nat. Commun.** Feb;14(1):771. (2023). DOI: 10.1038/s41467-023-36321-6.
2. Friedrich M, Hahn M, Michel J, Sankowski R, Kilian M, Kehl N, Günter M, Bunse T, Pusch S, von Deimling A, Wick W, Autenrieth SE, Prinz M, Platten M, Bunse L. Dysfunctional dendritic cells limit antigen-specific T cell response in glioma. **Neuro. Oncol.** Feb;25(2):263-276. (2023). DOI: 10.1093/neuonc/noac138.
3. Friedrich M*, Sankowski R*, Bunse L*, Kilian M, Green E, Ramallo-Guevara C, Pusch S, Poschet G, Sanghvi K, Hahn M, Bunse T, Münch P, Sonner JK, von Landenberg A, Cichon F, Aslan K, Trobisch T, Schirmer L, Abu-Sammour D, Kessler T, Ratliff M, Schimpf D, Sahm F, Hopf C, Heiland DH, Schnell O, Beck J, Böttcher C, Fernandez-Zapata C, Priller J, Heiland S, Gutcher I, Quintana F, von Deimling A, Wick W, Prinz M* and Platten M*. Tryptophan metabolism drives dynamic immunosuppressive myeloid states in IDH-mutant gliomas. **Nat Cancer** 2021; 2:723–740. *equal contribution
4. Platten M, Bunse L, Wick A, Bunse T, Le Cornet L, Harting I, Sahm F, Sanghvi K, Tan CL, Poschke I, Green E, Justesen S, Behrens G, Breckwoldt M, Freitag A, Rother LM, Schmitt A, Schnell O, Hense J, Misch M, Krex D, Stevanovic S, Tabatabai G, Steinbach JP, Bendszus M, von Deimling A, Schmitt M, Wick W. A vaccine targeting mutant IDH1 in newly diagnosed glioma. **Nature** 2021; 592:463-468.
5. Bunse L*, Pusch S*, Bunse T*, Sahm F, Sanghvi K, Friedrich M, Alansary D, Sonner JK, Green E, Deumelandt K, Kilian M, Neftel C, Uhlig S, Kessler T, von Landenberg A, Berghoff AS, Marsh K, Steadman M, Zhu D, Nicolay B, Wiestler B, Breckwoldt MO, Al-Ali R, Karcher-Bausch S, Bozza M, Oezen I, Kramer M, Meyer J, Habel A, Poschet G, Weller M, Preusser M, Nadji-Ohl M, Thon N, Burger M, Harter P, Ratliff M, Harbottle R, Benner A, Schimpf D, Okun J, Herold-Mende CM, Turcan S, Kaulfuss S, Hess-Stumpp H, Bieback K, Cahill DP, Plate KH, Hänggi D, Dorsch M, Suva M, Niemeyer BA, von Deimling A, Wick W, Platten M. Suppression of antitumor T cell immunity by the oncometabolite R-2-hydroxyglutarate. **Nat Med** 2018; 24:1192-1203. *equal contribution
6. Ochs K*, Ott M*, Bunse T, Sahm F, Bunse L, Deumelandt K, Sonner JK, Keil M, von Deimling A, Wick W, Platten M. K27M-mutant histone-3 as a novel target for glioma immunotherapy. **Oncoimmunology**. 2017 May 12;6(7):e1328340. DOI: 10.1080/2162402X.2017.1328340. *Authors contributed equally.
7. Platten M, Bunse L, Wick W, Bunse T. Concepts in glioma immunotherapy. **Cancer Immunol Immunother.** 2016 Oct;65(10):1269-75.
8. Keil M, Sonner JK, Lanz TV, Oezen I, Bunse T, Bittner S, Meyer HV, Meuth SG, Wick W, Platten M. General control non-derepressible 2 (GCN2) in T cells controls disease progression of autoimmune neuroinflammation. **J Neuroimmunol.** 2016; 297, 117-26.
9. Schumacher T, Bunse L, Wick W, Platten M. Mutant IDH1: An immunotherapeutic target in tumors. **Oncoimmunology**. 2015; 3(12):e974392. eCollection 2014 Dec.
10. Bunse L*, Schumacher T*, Sahm F*, Pusch S, Oezen I, Rauschenbach K, Gonzalez M, Solecki G, Osswald M, Capper D, Wiestler B, Winkler F, Herold-Mende C, von Deimling A, Wick W, Platten M. Proximity ligation assay evaluates IDH1R132H presentation in gliomas. **J Clin Invest.** 2015; 125, 593-606. *Authors contributed equally.
11. Schumacher T*, Bunse L*, Pusch S, Sahm F, Wiestler B, Quandt J, Menn O, Osswald M, Oezen I, Ott M, Keil M, Balß J, Grabowska AK, Vogler I, Diekmann J, Trautwein N, Eichmüller SB, Okun J, Stevanović S, Riemer AB, Sahin U, Friese MA, Beckhove P, von Deimling A, Wick W, Platten M. A vaccine targeting mutant IDH1 induces antitumor immunity. **Nature.** 2014; 512(7514), 324-7. *Authors contributed equally.
12. Opitz CA*, Litzenburger UM*, Sahm F, Ott M, Tritschler I, Trump S, Schumacher T, Jestaedt L, Schrenk D, Weller M, Jugold M, Guillemin GJ, Miller CL, Lutz C, Radlwimmer B, Lehman I, von Deimling A, Wick W, Platten M. An endogenous ligand of the human aryl hydrocarbon receptor. **Nature.** 2011; 5;478(7368), 197-203.

Authors contributed equally.

PATENTS

- Means And Methods For Treating Or Diagnosing IDH1 R132H Mutant-Positive Cancers (PCT/EP2013/050048)
- Method For The Detection Of Antigen Presentation (EPA 14190538.0)
Histone Anti-Cancer Vaccines (EP15176879)