

OPITZ, CHRISTIANE, PROF. DR. MED.

GENERAL INFORMATION



Division Head

German Cancer Research Center
Division of Metabolic Crosstalk in Cancer
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•DOB: 19.09.1979 •Sex: Fmale •Nationality: German

C04 / D03

ACADEMIC EDUCATION & QUALIFICATION

Year(s)	Education
2024	Appointment as W3 professor for metabolic crosstalk in cancer at the University of Heidelberg
2005	Approbation in human medicine (University of Heidelberg)
2004	Master in Molecular Cell Biology (University of Heidelberg)
2001-2004	Molecular Cell Biology (University of Heidelberg)
1998-2005	Medical School (University of Heidelberg)

SCIENTIFIC EDUCATION & QUALIFICATION

Year(s)	Education
2006	Medical thesis (PD. Dr. W. Linke, Institute of Physiology, University of Heidelberg)

PROFESSIONAL EXPERIENCE

Year(s)	Experience
Since 2022	Division head at the German Cancer Research Center, DKFZ
2013-2022	Junior group leader at the German Cancer Research Center, DKFZ
Since 2007	Resident in Neurooncology/Neurology (Prof. Dr. W. Wick) at the University Hospital Heidelberg
2007-2012	Postdoctoral researcher in the Experimental Neuroimmunology Unit (Prof. Dr. M. Platten) DKFZ
2006	Postdoctoral researcher at the Hertie Institute for Clinical Brain Research, Tübingen
2006	Resident in Neurology (Prof. Dr. M. Weller) at the University Hospital Tübingen

OTHER QUALIFICATIONS/ROLES/RESPONSIBILITIES

Year(s)	Qualifications/Roles/Responsibilities
2022	ERC consolidator grant
2018-2022	Clinical coordinator Horizon 2020 MESI-STRAT
2016-2021	Coordinator of the Transcan-2 JTC consortium PROMETOV
2015-2018	Coordinator of the BMBF e:Med Young investigator network GlioPATH
2014	Award of the Berlin-Brandenburg Academy of Sciences
2013	Bayer Early Excellence Award in Science
2012	Hella-Bühler-Award for Oncological Research
2012	Sibylle-Assmus-Foundation Award for Neurooncology
2010-2013	Postdoctoral Fellowship of the Medical Faculty, Heidelberg
1999-2005	Scholarship of the German National Academic Merit Foundation

SELECTED PUBLICATIONS

1. Sadik A, Somarribas Patterson LF, Öztürk S, Mohapatra SR, Panitz V, Secker PF, Pfänder P, Loth S, Salem H, Prentzell MT, Berdel B, Iskar M, Faessler E, Reuter F, Kirst I, Kalter V, Foerster KI, Jäger E, Guevara CR, Sobeh M, Hielscher T,

- Poschet G, Reinhardt A, Hassel JC, Zapatka M, Hahn U, von Deimling A, Hopf C, Schlichting R, Escher BI, Burhenne J, Haefeli WE, Ishaque N, Böhme A, Schäuble S, Thedieck K, Trump S*, Seiffert M*, Opitz CA*#. IL4I1 Is a Metabolic Immune Checkpoint that Activates the AHR and Promotes Tumor Progression. **Cell**. 2020 Aug 17;S0092-8674(20)30946-6. PMID: 32818467 (*co-last authors, #corresponding author)
2. Prentzell MT, Rehbein U, Cadena Sandoval M, De Meulemeester AS, Baumeister R, Brohée L, Berdel B, Bockwoldt M, Carroll B, Chowdhury SR, von Deimling A, Demetriades C, Figlia G; Genomics England Research Consortium, de Araujo MEG, Heberle AM, Heiland I, Holzwarth B, Huber LA, Jaworski J, Kedra M, Kern K, Kopach A, Korolchuk VI, van 't Land-Kuper I, Macias M, Nellist M, Palm W, Pusch S, Ramos Pittol JM, Reil M, Reintjes A, Reuter F, Sampson JR, Scheldeman C, Siekierska A, Stefan E, Teleman AA, Thomas LE, Torres-Quesada O, Trump S, West HD, de Witte P, Woltering S, Yordanov TE, Zmorzynska J, Opitz CA§, Thedieck K§. G3BPs tether the TSC complex to lysosomes and suppress mTORC1 signaling. **Cell**. 2021 Jan 18;S0092-8674(20)31694-9. doi: 10.1016/j.cell.2020.12.024. (§ shared corresponding & last authorship)
 3. Opitz CA*, Litzemberger UM*, Sahn 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, Lehmann I, von Deimling A, Wick W, Platten M. An endogenous tumour-promoting ligand of the human aryl hydrocarbon receptor. **Nature**. 2011 Oct 5;478(7368):197-203. (*co-first authors)
 4. Panitz V, Končarević S, Sadik , Friedel D, Bausbacher T, Trump S, Farztdinov V, Schulz S, Sievers P, Schmidt S, Jürgenson I, Jung S, Kuhn K, Pflüger I, Sharma S, Wick A, Pfänder P, Selzer S, Vollmuth P, Sahn F, von Deimling A, Heiland I, Hopf C, Schulz-Knappe P, Pike I, Platten M, Wick W, Opitz CA. Tryptophan metabolism is inversely regulated in the tumor and blood of patients with glioblastoma. **Theranostics**. 2021 Sep 3;11(19):9217-9233. doi: 10.7150/thno.60679.
 5. Mohapatra SR, Sadik A, Sharma S, Poschet G, Gegner HM, Lanz TV, Lucarelli P, Klingmüller U, Platten M, Heiland I, Opitz CA. Hypoxia Routes Tryptophan Homeostasis Towards Increased Tryptamine Production. **Front Immunol**. 2021 Feb 19;12:590532. doi: 10.3389/fimmu.2021.590532.
 6. Dewi, D.L., Mohapatra, S.R., Cabañes, S.B., Adam, I., Patterson, L.F.S., Berdel, B., Kahloon, M., Thürmann, L., Loth, S., Heilmann, K., Weichenhan, D., Mücke, O., Heiland, I., Wimberger, P., Kuhlmann, J.D., Kellner, K.-H., Schott, S., Plass, C., Platten, M., Gerhäuser, C., Trump, S., Opitz, C.A. Suppression of indoleamine-2,3-dioxygenase 1 expression by promoter hyper-methylation in ER-positive breast cancer. **Oncoimmunology**. 2017;6(2):e1274477.
 7. Mohapatra SR, Sadik A, Tykocinski LO, Dietze J, Poschet G, Heiland I, Opitz CA. Hypoxia Inducible Factor 1 α Inhibits the Expression of Immunosuppressive Tryptophan-2,3-Dioxygenase in Glioblastoma. **Front Immunol**. 2019 Dec 4;10:2762. doi: 10.3389/fimmu.2019.02762.
 8. Adam I, Dewi DL, Mooiweer J, Sadik A, Mohapatra SR, Berdel B, Keil M, Sonner JK, Thedieck K, Rose AJ, Platten M, Heiland I, Trump S, Opitz CA. Upregulation of tryptophanyl-tRNA synthetase adapts human cancer cells to nutritional stress caused by tryptophan degradation. **Oncoimmunology**. 2018 Sep 5;7(12):e1486353. doi:10.1080/2162402X.2018.1486353.
 9. Litzemberger UM*, Opitz CA*, Sahn F, Rauschenbach KJ, Trump S, Winter M, Ott M, Ochs K, Lutz C, Liu X, Anastasov N, Lehmann I, Höfer T, von Deimling A, Wick W, Platten M. Constitutive IDO expression in human cancer is sustained by an autocrine signaling loop involving IL-6, STAT3 and the AHR. **Oncotarget**. 2014 Feb 28;5(4):1038-51. (*authors contributed equally)
 10. Sahn F, Oezen I, Opitz CA, Radlwimmer B, von Deimling A, Ahrendt T, Adams S, Bode HB, Guillemin GJ, Wick W, Platten M. The endogenous tryptophan metabolite and NAD⁺ precursor quinolinic acid confers resistance of gliomas to oxidative stress. **Cancer Res**. 2013 Jun 1;73(11):3225-34.

PATENTS

- Means and methods for treating and/or preventing natural AHR ligand-dependent cancer International patent (PCT) application n° PCT/EP2012/067504, published under n° WO 2013/034685.
- Isotopic method for measurement of tryptophan and metabolites thereof International patent (PCT) application n° PCT/EP2016/076265, published under n° WO2017/072368.
- AHR signature marker set International patent (PCT) application n° PCT/EP2020/060259, published under n° WO 2020/3715471.
- Interleukin-4-induced gene 1 (IL4I1) as a biomarker and uses thereof International patent (PCT) application, filed April 9 2019 (Application n° PCT/EP2020/060259, published under n° WO 2020/208190).
- Interleukin-4-induced gene 1 (IL4I1) and respective metabolites as biomarkers for cancer International patent (PCT) application n° PCT/EP2020/085647, published under n° WO 2021/116357