

Heikenwalder, Mathias, Prof., PhD (A07)

Personal Data

Title	Univ.-Prof. Dr.
First name	Mathias Florian
Name	Heikenwalder
Current position	Professor for Chronic Inflammation and Cancer (W3), Director, The M3 Research Center, Universitats-Klinikum Tubingen (UKT), Tubingen; Head of Division, Chronic Inflammation and Cancer, German Cancer Research center (DKFZ), Heidelberg, Germany; permanent position
Current institution(s)/site(s), country	The M3 Research Center, Universitats-Klinikum Tubingen (UKT), Tubingen, Germany
Identifiers/ORCID	ORCID-ID: 0000-0002-3135-2274

Qualifications and Career

Stages	Periods and Details
Degree programme: Microbiology/Genetics	1994 – 1999, Microbiology and Genetics, University of Vienna, Austria; the Max-Perutz Laboratories, Vienna and the Institute of Molecular Pathology (IMP), Vienna, Austria
Diploma: Master Thesis	03.03.2001: Supervisor: Martin Zenke, “ <i>Characterization of the chicken Tubby like 1 gene (Tulp1)</i> ”, Max-Delbruck Center for Molecular Medicine (MDC), Berlin, Germany
Doctorate: PhD thesis	30.09.2004: Supervisor: Adriano Aguzzi, “ <i>On the role of inflammation in peripheral prion pathogenesis</i> ”, Institute of Neuropathology, University Hospital Zurich (USZ), Switzerland (<i>summa cum laude</i>)
Stages of academic / professional career	
Since 2022	Executive/Scientific director of the M3 Research Center, Tubingen, Germany
Since 2015	W3-Professor, DKFZ, Head of the division “Chronic inflammation and cancer”, Heidelberg, Germany
08/2010	W2-Professor, TU Munchen and Research Associate at the University Hospital of Zurich, Clinical Pathology, Munich, Germany
2010	Helmholtz Young Group Investigator, Helmholtz-Zentrum Munchen (HMGU), Germany
2009	Sponsor and leading investigator of a clinical trial at the clinical trial Center Zurich (CTC), University Hospital Zurich to treat HCV-genotype 1 infected patients, group leader at the Department of Pathology USZ, Switzerland

2007	Prof. Dr. Max-Cloëtta fellow (Ass. Prof.) and independent group leader at the Department of Pathology and start as a principal investigator (PI), University of Zurich, Switzerland
2006	Staff scientist and lecturer in the Department of Pathology, Institute of Neuropathology, University of Zurich, Switzerland
2004	Postdoctoral fellow, Institute of Neuropathology, Pathology Department, University Hospital Zurich (USZ), Switzerland

Engagement in the Research System

- Scientific co-coordinator of the Helmholtz Alliance Inflammation and Immunity at the German Cancer Research Center (since 2017)
- Member of the Committee to evaluate animal experiments (DKFZ) (since 2015)
- Scientific coordinator of the chronic inflammation program (CIP) at the DKFZ in collaboration with the NIH, USA (since 2015)
- Member of the scientific advisory board for Liver inflammation and PSC, Mayo Clinic, USA (since 2018)
- Member of the Comprehensive Cancer Center (CCC) boards of directors, University Clinics Tübingen (UKT) (01/2023)

Scientific Results

Category A, * Co-last, co-corresponding author, # open access

1. Kotsiliti E, Leone V, Schuehle S, Govaere O, Li H, Wolf MJ, Horvatic H, Bierwirth S, Hundertmark J, Inverso D, Zizmare L, Sarusi-Portuguez A, Gupta R, O'Connor T, Giannou AD, Shiri AM, Schlesinger Y, Beccaria MG, Rennert C, Pfister D, Öllinger R, Gadjalova I, Ramadori P, Rahbari M, Rahbari N, Healy M, Fernández-Vaquero M, Yahoo N, Janzen J, Singh I, Fan C, Liu X, Rau M, Feuchtenberger M, Schwaneck E, Wallace SJ, Cockell S, Wilson-Kanamori J, Ramachandran P, Kho C, Kendall TJ, Leblond AL, Keppler SJ, Bielecki P, Steiger K, Hofmann M, Rippe K, Zitzlesberger H, Weber A, Malek N, Lüdde T, Vucur M, Augustin HG, Flavell R, Parnas O, Rad R, Pabst O, Henderson NC, Huber S, Macpherson A, Knolle P, Claasen M, Geier A, Trautwein C, Unger K, Elinav E, Waisman A, Abdullah Z, Haller D, Tacke F, Anstee QM, **Heikenwalder M**. Intestinal B-cells license metabolic T-cell activation in NASH microbiota/antigen-independently and contribute to fibrosis by IgA-FcR signalling. **J Hepatol** 2023 May 9:S0168-8278(23)00325-2. doi: 10.1016/j.jhep.2023.04.037. Online ahead of print. #
2. Pfister D, Núñez NG, Pinyol R, Govaere O, Pinter M, Szydlowska M, Gupta R, Qiu M, Deczkowska A, Weiner A, Müller F, Sinha A, Friebel E, Engleitner T, Lenggenhager D, Moncsek A, Heide D, Stirm K, Kosla J, Kotsiliti E, Leone V, Dudek M, Yousuf S, Inverso D, Singh I, Teijeiro A, Castet F, Montironi C, Haber PK, Tiniakos D, Bedossa P, Cockell S, Younes R, Vacca M, Marra F, Schattenberg JM, Allison M, Bugianesi E, Ratziu V, Pressiani T, D'Alessio A, Personeni N, Rimassa L, Daly AK, Scheiner B, Pomej K, Kirstein MM, Vogel A, Peck-Radosavljevic M, Hucke F, Finkelmeier F, Waidmann O, Trojan J, Schulze K, Wege H, Koch S, Weinmann A, Bueter M, Rössler F, Siebenhüner A, De Dosso S, Mallm JP, Umansky V, Jugold M, Luedde T, Schietinger A, Schirmacher P, Emu B, Augustin HG, Billeter A, Müller-Stich B, Kikuchi H, Duda DG, Kütting F, Waldschmidt DT, Ebert MP, Rahbari N, Mei HE, Schulz AR, Ringelhan M, Malek N, Spahn S, Bitzer M, Ruiz de Galarreta M, Lujambio A, Dufour JF, Marron TU, Kaseb A, Kudo M, Huang YH, Djouder N, Wolter K, Zender L, Marche PN, Decaens T, Pinato DJ, Rad R, Mertens JC, Weber A, Unger K, Meissner F, Roth S, Jilkova ZM, Claassen M, Anstee QM, Amit I, Knolle P, Becher B, Llovet JM, **Heikenwalder M**. NASH limits anti-tumour surveillance in immunotherapy-treated HCC. **Nature** 2021; 592(7854):450-456. doi: 10.1038/s41586-021-03362-0. #

3. Conlon TM, John-Schuster G, Heide D, Pfister D, Lehmann M, Hu Y, Ertüz Z, Lopez MA, Ansari M, Strunz M, Mayr C, Angelidis I, Ciminieri C, Costa R, Kohlhepp MS, Guillot A, Günes G, Jeridi A, Funk MC, Beroshvili G, Prokosch S, Hetzer J, Verleden SE, Alsafadi H, Lindner M, Burgstaller G, Becker L, Irmeler M, Dudek M, Janzen J, Goffin E, Gosens R, Knolle P, Pirotte B, Stoeger T, Beckers J, Wagner D, Singh I, Theis FJ, de Angelis MH, O'Connor T, Tacke F, Boutros M, Dejardin E, Eickelberg O, Schiller HB, Königshoff M, **Heikenwalder M***, Yildirim AÖ*. Inhibition of LTβR signalling activates WNT-induced regeneration in lung. **Nature** 2020; 588(7836):151-156. doi: 10.1038/s41586-020-2882-8. #
4. O'Connor T, Zhou X, Kosla J, Adili A, Garcia Beccaria M, Kotsiliti E, Pfister D, Johlke AL, Sinha A, Sankowski R, Schick M, Lewis R, Dokalis N, Seubert B, Höchst B, Inverso D, Heide D, Zhang W, Weihrich P, Manske K, Wohlleber D, Anton M, Hoellein A, Seleznik G, Bremer J, Bleul S, Augustin HG, Scherer F, Koedel U, Weber A, Protzer U, Förster R, Wirth T, Aguzzi A, Meissner F, Prinz M, Baumann B, Höpken UE, Knolle PA, von Baumgarten L, Keller U, **Heikenwalder M**. Age-Related Gliosis Promotes Central Nervous System Lymphoma through CCL19-Mediated Tumor Cell Retention. **Cancer Cell** 2019; 36(3):250-267.e9. doi: 10.1016/j.ccell.2019.08.001. #
5. Malehmir M, Pfister D, Gallage S, Szydłowska M, Inverso D, Kotsiliti E, Leone V, Peiseler M, Surewaard BGJ, Rath D, Ali A, Wolf MJ, Drescher H, Healy ME, Dauch D, Kroy D, Krenkel O, Kohlhepp M, Engleitner T, Olkus A, Sijmonsma T, Volz J, Deppermann C, Stegner D, Helbling P, Nombela-Arrieta C, Rafiei A, Hinterleitner M, Rall M, Baku F, Borst O, Wilson CL, Leslie J, O'Connor T, Weston CJ, Chauhan A, Adams DH, Sheriff L, Teijeiro A, Prinz M, Bogeska R, Anstee N, Bongers MN, Notohamiprodjo M, Geisler T, Withers DJ, Ware J, Mann DA, Augustin HG, Vegiopoulos A, Milsom MD, Rose AJ, Lalor PF, Llovet JM, Pinyol R, Tacke F, Rad R, Matter M, Djouder N, Kubes P, Knolle PA, Unger K, Zender L, Nieswandt B, Gawaz M, Weber A, **Heikenwalder M**. Platelet GPIIb/IIIa is a mediator and potential interventional target for NASH and subsequent liver cancer. **Nat Med** 2019; 25(4):641-655. doi: 10.1038/s41591-019-0379-5. Epub 2019 Apr 1. Erratum in: *Nat Med.* 2022 Mar;28(3):600. PMID: 30936549. #
6. Lorentzen A, Becker PF, Kosla J, Saini M, Weidele K, Ronchi P, Klein C, Wolf MJ, Geist F, Seubert B, Ringelhan M, Mihic-Probst D, Esser K, Roblek M, Kuehne F, Bianco G, O'Connor T, Müller Q, Schuck K, Lange S, Hartmann D, Spaich S, Groß O, Utikal J, Haferkamp S, Sprick MR, Damle-Vartak A, Hapfelmeier A, Hüser N, Protzer U, Trumpp A, Saur D, Vartak N, Klein CA, Polzer B, Borsig L, **Heikenwalder M**. Single cell polarity in liquid phase facilitates tumour metastasis. **Nat Commun** 2018; 9(1):887. doi: 10.1038/s41467-018-03139-6. #
7. Yuan D, Huang S, Berger E, Liu L, Gross N, Heinzmann F, Ringelhan M, Connor TO, Stadler M, Meister M, Weber J, Öllinger R, Simonavicius N, Reisinger F, Hartmann D, Meyer R, Reich M, Seehawer M, Leone V, Höchst B, Wohlleber D, Jörs S, Prinz M, Spalding D, Protzer U, Luedde T, Terracciano L, Matter M, Longrich T, Knolle P, Ried T, Keitel V, Geisler F, Unger K, Cinnamon E, Pikarsky E, Hüser N, Davis RJ, Tschaharganeh DF, Rad R, Weber A, Zender L, Haller D, **Heikenwalder M**. Kupffer Cell-Derived Tnf Triggers Cholangiocellular Tumorigenesis through JNK due to Chronic Mitochondrial Dysfunction and ROS. **Cancer Cell** 2017; 31(6):771-789.e6. doi: 10.1016/j.ccell.2017.05.006. #
8. Wolf MJ, Adili A, Piotrowitz K, Abdullah Z, Boege Y, Stemmer K, Ringelhan M, Simonavicius N, Egger M, Wohlleber D, Lorentzen A, Einer C, Schulz S, Clavel T, Protzer U, Thiele C, Zischka H, Moch H, Tschöp M, Tumanov AV, Haller D, Unger K, Karin M, Kopf M, Knolle P*, Weber A*, **Heikenwalder M***. Metabolic activation of intrahepatic CD8+ T cells and NKT cells causes nonalcoholic steatohepatitis and liver cancer via cross-talk with hepatocytes. **Cancer Cell** 2014; 26(4):549-64. doi: 10.1016/j.ccell.2014.09.003. #
9. Wolf MJ, Hoos A, Bauer J, Boettcher S, Knust M, Weber A, Simonavicius N, Schneider C, Lang M, Stürzl M, Croner RS, Konrad A, Manz MG, Moch H, Aguzzi A, van Loo G, Pasparakis M, Prinz M, Borsig L*, **Heikenwalder M***. Endothelial CCR2 signaling induced by colon carcinoma cells enables extravasation via the JAK2-Stat5 and p38MAPK pathway. **Cancer Cell** 2012 Jul 10;22(1):91-105. doi: 10.1016/j.ccr.2012.05.023. #
10. Rappez L, Stadler M, Triana S, Gathungu RM, Ovchinnikova K, Phapale P, **Heikenwalder M***, Alexandrov T*. SpaceM reveals metabolic states of single cells. **Nat Methods** 2021; 18(7):799-805. doi: 10.1038/s41592-021-01198-0. #

Category B

Heikenwalder M, Zender L, EP000003475425A1 Treatment of non-alcoholic steato-hepatitis (NASH)

Academic Distinctions

- German Cancer Award (2022)
- Most highly cited researcher (“Cross Topic” Web of Science) (2018 – 2022)
- ERC Proof of concept grant “Faith” (2020)
- Elected Member of the Leopoldina (2019)
- Swiss Prize for Liver Gastroenterology (2018)
- ERC Consolidator grant “Hepatometabopath” (2015)
- Walther and Christine Richtzenhain award (DKFZ), Heidelberg, Germany (2012)
- ERC starting grant “Liver Cancer Mechanisms” (2010)
- Prof. Hans Peter Hofschneider award (2010)
- Gotz prize, donated by the University of Zurich, Switzerland (2009)
- Prof. Max Cloetta award (2007)
- Empiris award for brain research, Empiris foundation for brain research (2006)
- “Creutzfeldt Wissenschaftspreis”, Creutzfeldt-Stiftung, Kiel, Germany (2004)
- Erasmus fellowship provided by the European Community and an “achievement scholarship” provided by University of Vienna, Austria (1999)