

Dear UNITE Members,

We are happy to provide you with our **2nd UNITE Newsletter** today! The start of our second funding phase was less than a year ago, but we can already look back on many scientific and personal highlights. We are excited to share some of these with you today.

Moreover, we will give you an overview of **upcoming workshops and UNITE Events** and provide further information on the **UNITE travel grants**.

Stay tuned and enjoy reading the **UNITE Spring Edition** of our Newsletter!

Best wishes,
The UNITE Project Management Team

FOCUS C

FOCUS A

FOCUS B

FOCUS D

FOCUS C

NEW PI

Dr. rer. nat. Gzona Bajraktari-Sylejmani studied **pharmacy** at **Prishtina University** in Kosovo and completed her doctorate in the **Department of Clinical Pharmacology and Pharmacoepidemiology** in Heidelberg. She has been working in this department as a Post Doc since 2019 and has been the deputy head of the department's molecular biology / biochemistry laboratory since 2021.

Gzona Bajraktari-Sylejmani **joined the UNITE-Team this year**, and leads subproject **C01** together with Stefan Pfister.



Gzona Bajraktari-Sylejmani (C01)
Heidelberg University Hospital
Dept. of Clinical Pharmacology &
Pharmacoepidemiology

Welcome to our UNITE-Team!

CONGRATULATIONS

A Team of Scientists from Heidelberg University, UKHD and the DKFZ has **discovered how neurons interact and connect with glioblastoma cells and thus promote their growth**. These findings were published in a [paper from 2019](#) and are of great importance for future brain tumor research.

Thomas Kuner, Frank Winkler and Varun Venkataramani have now been honored on behalf of all authors by the Portuguese BIAL Foundation with the highly endowed "BIAL Award in Biomedicine" – Congratulations!

A video of the award-winning work can be found [here](#).

Bial AWARD

IN BIOMEDICINE 2023



Thomas Kuner



Frank Winkler (A01)



Varun Venkataramani (A07)



UNITE FELLOW COMMITTEE

We are happy to announce, that our **new Fellow Committee** has been formed. We are very much looking forward to working with you and are excited about your ideas and new input for further developing the UNITE School. These are the representatives of our new Fellow Committee:



Jennifer Furkel (C05) Natalie Schoebe (A06) Khwab Sanghvi (B01)

We would like to take this opportunity to once again draw our fellows' attention to the **Slack channel**. If you haven't joined yet, you can do so [here](#). This will ensure you don't miss any news on upcoming fellow meetings.

TRAVEL GRANTS

We are happy to announce the availability of travel grants for all UNITE fellows. You can apply **from April 8**. We will send a separate email to all fellows with most important information on the process and application forms.

First Come, First Serve!

Below you can find an overview of (selected) upcoming Neurooncology conferences with important information.

Neurooncology:

- [ASCO](#) | May 31-June 4, 2024 | Chicago, USA
- [EACR](#) | June 10-13, 2024 | Rotterdam, Netherlands
- [BNOS](#) | July 17-19, 2024 | Cambridge, UK
- [SNO](#) | August 8-10, 2024 | Denver, USA
- [EANO](#) | October 17-20, 2024 | Glasgow, UK

Pediatric Neurooncology:

- [ISPNO](#) | June 28 - July 2, 2024 | Philadelphia, USA

Neuropathology:

- [AANP](#) | June 6-9, 2024 | California, USA

FELLOW MEET UP

On Thursday, 21 March, our first fellow meeting organized by our **Fellow Committee** took place at the Marsilius Kolleg.

The meeting started with a welcome and short introduction by **Christiane Opitz**, followed by a **UNITE Science Slam**: a short presentation of the fellows and their research projects. The fellows also had the opportunity to give suggestions for the upcoming Fellow Retreat.



A **big thank you** to all fellows who participated in the event, to Christiane Opitz for the information about the UNITE School and of course to our Fellow Committee for organizing this event!

COMPLETED DISSERTATIONS



Daniel Domínguez-Azorín (A01), 08.09.2023, „Imaging-based drug development targeting tumor microtube networks in glioblastoma“ [10.11588/heidok.00033814](https://doi.org/10.11588/heidok.00033814)

Ling Hai (A03), 23.02.2024, „Characterization of tumor subpopulations in glioblastoma with single cell transcriptomics“ [10.11588/heidok.00034511](https://doi.org/10.11588/heidok.00034511)

Dirk Hoffman (A03), 22.12.2023, „A transcriptomic fingerprint of tumor microtube-connected cells identifies CHI3L1 as a tumor network driver in glioblastoma“

Xueyuan Sun (A04), 14.09.2023, „Investigating New Drug Options for Temozolomide Resistant IDH1 Mutant Glioma.“

Khwab Sanghvi (B01), 29.06.2023, „Approaches to address the immunogenicity and immunosuppressive features of Isocitrate Dehydrogenase 1 mutated gliomas“ [10.11588/heidok.00033640](https://doi.org/10.11588/heidok.00033640)

Pauline Holfelder (C04), 29.01.2024, „The effects of tryptophan depletion on aryl hydrocarbon receptor AHR activation.“





UPCOMING UNITE EVENTS

[Here](#) you can find a detailed overview which includes all meetings until July 2024. Upcoming meetings are:

UNITE Journal Club

18.04.2024, 10:15 – 11:15, Seminar room 1, Kopfklinik

UNITE WiP Meeting

25.04.2024, 10:15 – 11:15, Seminar room 6.1/6.2
Chirurgische Klinik

UNITE Seminar Series

Katrin Lamszus:

“Immunoediting in malignant glioma and immune modulation by anti-VEGF treatment”

11.04.2024, 10:15 – 11:15, online

WORKSHOP:

1st UNITE Specialized Workshop 2024

08.-10.04.2024

Bioinformatics & Biostatistics

GENDER LUNCH TALK

In this new series you will have the opportunity to hear presentations with a focus on **gender equality and diversity** and to engage in an exchange with the speakers and scientists from different disciplines. We are very pleased that the **CRC 1389 will host the first lecture**.

Martha Nowosielski will give a talk on the initiative **DiviNe - Diversity in Neurooncology – present status and future vision**

15.05.2024 – online, please register [here](#)

ÜBERLEBENSSTRATEGIEN

“Heidelberger Überlebensstrategien” is a joint project between the life sciences research alliances of Heidelberg University and Rhein-Neckar-Fernsehen (RNF). Scientists are presenting the focus and aims of their research projects. **Wolfgang Wick and Sophie Heuer represented our CRC** and provided insights into our research work. We will inform you about the broadcast date as soon as possible - **stay tuned!**



NEW CLINICAL TRIALS

The following two trials have recently started recruiting patients:

[PerSurge \(↗\)](#)

BMBF Funded

Coordinating Investigators:

Frank Winkler, Wolfgang Wick

Medical and Scientific Coordinators:

Sophie Heuer, Tobias Kessler

EU trial number: 2023-503938-52-00

[INVENT4GB \(↗\)](#)

Intraventricular TCR therapy for glioblastoma

DKTK Joint Funding Program

Coordinators:

Michael Platten, Wolfgang Wick, Lukas Bunse

SELECTED PUBLICATIONS (1/2)

Kilian M, Sheinin R, Tan CL, Krämer C, Friedrich M, Kaminitz A, [Sanghvi K](#), Lindner K, Chih YC, Cichon F, Richter B, Jung S, Jähne K, [Ratliff M](#), Prins R, Etminan N, [von Deimling A](#), [Wick W](#), Madi A, [Bunse L](#), [Platten M](#). MHC class II-restricted antigen presentation is required to prevent dysfunction of cytotoxic T cells by blood-borne myeloids in brain tumors. Cancer Cell. 2023. 41(2):235-251.e9. [10.1016/j.ccell.2022.12.007](https://doi.org/10.1016/j.ccell.2022.12.007).

Zhao B, Kilian M, [Bunse T](#), [Platten M](#), [Bunse L](#). Tumor-reactive T helper cells in the context of vaccination against glioma. Cancer Cell. 2023. 41(11):1829-1834. [10.1016/j.ccell.2023.09.013](https://doi.org/10.1016/j.ccell.2023.09.013). Commentary

Krämer C, Kilian M, Chih YC, Kourtesakis A, [Hoffmann DC](#), Boschert T, Koopmann P, [Sanghvi K](#), [De Roia A](#), Jung S, Jähne K, Day B, Shultz LD, [Ratliff M](#), Harbottle R, Green EW, Will R, [Wick W](#), [Platten M](#), [Bunse L](#). NLGN4X TCR transgenic T cells to treat gliomas. Neuro Oncol. 2024 Feb 2;26(2):266-278. [10.1093/neuonc/noad172](https://doi.org/10.1093/neuonc/noad172).

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. 2023. 25(2):263-276. [10.1093/neuonc/noac138](https://doi.org/10.1093/neuonc/noac138).



SELECTED PUBLICATIONS (2/2)

Hai L, Hoffmann DC, Wagener RJ, Azarin DD, Hausmann D, Xie R, Huppertz MC, Hiblot J, Sievers P, Heuer S, Ito J, Cebulla G, Kourtesakis A, Kaulen LD, Ratliff M, Mandelbaum H, Jung E, Jabali A, Horschitz S, Ernst KJ, Reibold D, Warnken U, Venkataramani V, Will R, Suvà ML, Herold-Mende C, Sahm F, Winkler F, Schlesner M, Wick W, Kessler T. A clinically applicable connectivity signature for glioblastoma includes the tumor network driver CHI3L1. Nat Commun. 2024 Feb 6;15(1):968. [10.1038/s41467-024-45067-8](https://doi.org/10.1038/s41467-024-45067-8).

Iser F, Hinz F, Hoffmann DC, Grassl N, Güngör C, Meyer J, Dörner L, Hofmann L, Kelbch V, Göbel K, Mahmutoglu MA, Vollmuth P, Patel A, Nguyen D, Kaulen LD, Mildenberger I, Sahm K, Maaß K, Pajtler KW, Shankar GM, Weiler M, Wildemann B, Winkler F, von Deimling A, Platten M, Wick W, Sahm F, Kessler T. Cerebrospinal fluid cfDNA sequencing for classification of central nervous system glioma. Clin Cancer Res. 2024 Jan 31. [10.1158/1078-0432.CCR-23-2907](https://doi.org/10.1158/1078-0432.CCR-23-2907).

Heuer S, Burghaus I, Gose M, Kessler T, Sahm F, Vollmuth P, Venkataramani V, Hoffmann D, Schlesner M, Ratliff M, Hopf C, Herrlinger U, Ricklefs F, Bendszus M, Krieg SM, Wick A, Wick W, Winkler F. PerSurge (NOA-30) phase II trial of perampanel treatment around surgery in patients with progressive glioblastoma. BMC Cancer. 2024 Jan 26;24(1):135 [10.1186/s12885-024-11846-1](https://doi.org/10.1186/s12885-024-11846-1).

Rastogi A, Brugnara G, Foltyn-Dumitru M, Ahmed Mahmutoglu M, Preetha C, Kobler E, Pflüger I, Schell M, Deike-Hofmann K, Kessler T, van den Bent M, Idbaih A, Platten M, Brandes A, Nabors B, Stupp R, Bernhardt D, Debus J, Abdollahi A, Gorlia T, Tonn J, Weller M, Maier-Hein K, Radbruch A, Wick W, Bendszus M, Meredig H, Kurz F, Vollmuth P. Deep-learning-based reconstruction of undersampled MRI to reduce scan times: a multicentre, retrospective, cohort study. [10.1016/S1470-2045\(23\)00641-1](https://doi.org/10.1016/S1470-2045(23)00641-1).

Tan CL, Lindner K, Boschert T, Meng Z, Rodriguez Ehrenfried A, De Roia A, Haltenhof G, Faenza A, Imperatore F, Bunse L, Lindner JM, Harbottle RP, Ratliff M, Oftringa R, Poschke I, Platten M, Green EW. Tumor-reactive T-cell receptors are rapidly identified from lymphocyte scRNA-seq data. Nature Biotechnology. 2024 Mar 7. [10.1038/s41587-024-02161-y](https://doi.org/10.1038/s41587-024-02161-y)

Tetzlaff S, Reyhan E, Bengtson C, Schroers J, Wagner J, Schubert M, Layer N, Puschhof M, Faymonville A, Drewa N, Pramatarov R, Wissmann N, Alhalabi O, Heuer A, Sivapalan N, Campos J, Boztepe B, Scheck J, Villa G, Schröter M, Sahm F, Forsberg-Nilsson K, Breckwoltd M, Acuna C, Suchorska B, Heiland D, Saez-Rodriguez J, Venkataramani V. Characterizing and targeting glioblastoma neuron-tumor networks with retrograde tracing. bioRxiv. 2024 03.18.585565 [10.1101/2024.03.18.585565](https://doi.org/10.1101/2024.03.18.585565)

Grassl N, Poschke I, Lindner K, Bunse L, Mildenberger I, Boschert T, Jähne K, Green EW, Hülsmeier I, Jünger S, Kessler T, Suwala AK, Eisele P, Breckwoltd MO, Vajkoczy P, Grauer OM, Herrlinger U, Tonn JC, Denk M, Sahm F, Bendszus M, von Deimling A, Winkler F, Wick W, Platten M, Sahm K. A H3K27M-targeted vaccine in adults with diffuse midline glioma. Nat Med. 2023. 29(10):2586-2592. [10.1038/s41591-023-02555-6](https://doi.org/10.1038/s41591-023-02555-6)

Grassl N, Sahm K, Süße H, Poschke I, Bunse L, Bunse T, Boschert T, Mildenberger I, Rupp AK, Ewinger MP, Lanz LM, Denk M, Tabatabai G, Ronellenfisch MW, Herrlinger U, Glas M, Krex D, Vajkoczy P, Wick A, Harting I, Sahm F, von Deimling A, Bendszus M, Wick W, Platten M. INTERCEPT H3: A multicenter phase I peptide vaccine trial for the treatment of H3-mutated diffuse midline gliomas. Neurol Res Pract. 2023. 5(1):55. [10.1186/s42466-023-00282-4](https://doi.org/10.1186/s42466-023-00282-4)

Hunger J, Schregel K, Boztepe B, Agardy DA, Turco V, Karimian-Jazi K, Weidenfeld I, Streibel Y, Fischer M, Sturm V, Kourtesakis A, Santarella-Mellwig R, Kilian M, Jähne K, Sahm K, Wick W, Bunse L, Heiland S, Bunse T, Bendszus M, Platten M, Breckwoltd MO. In vivo nanoparticle-based T cell imaging can predict therapy response towards adoptive T cell therapy in experimental glioma. Theranostics. 2023. 13(15):5170-5182. [10.7150/thno.87248](https://doi.org/10.7150/thno.87248)

Cui H, Sun X, Schilling M, Herold-Mende C, Reischl M, Levkin PA, Popova AA, Turcan Ş. Repurposing FDA-Approved Drugs for Temozolomide-Resistant IDH1 Mutant Glioma Using High-Throughput Miniaturized Screening on Droplet Microarray Chip. Adv Healthc Mater. 2023 Sep;12(24):e2300591. [10.1002/adhm.202300591](https://doi.org/10.1002/adhm.202300591)