

# ERNST, AURÉLIE, PD DR. RER. NAT.

## GENERAL INFORMATION



### Junior Group Leader

German Cancer Research Center (DKFZ)  
Junior Group Genome Instability in Tumors  
Im Neuenheimer Feld 580, 69120 Heidelberg, Germany

A08N

## ACADEMIC EDUCATION & QUALIFICATION

Year(s)	Education
2006	Diploma Thesis in Cancer Genetics, Comprehensive Cancer Center, University of California, San Francisco (UCSF), United States (Mentor: Prof. Allan Balmain)
2005-2006	Master of Research in Biochemistry, University Claude Bernard, Lyon, France
2001-2006	Diploma in Biosciences, National Institute of Applied Sciences, Lyon, France

## SCIENTIFIC EDUCATION & QUALIFICATION

Year(s)	Education
2021	Habilitation (approval as University lecturer) in Molecular Genetics at the Ruprecht-Karls-University Heidelberg
2006-2009	Doctoral Thesis (Dr. rer. nat., <i>Summa cum laude</i> ) in Glioma genetics, Division of Molecular Genetics, German Cancer Research Centre (DKFZ), Heidelberg, Germany (Mentor: Prof. Peter Lichter)

## PROFESSIONAL EXPERIENCE

Year(s)	Experience
2022	Visiting scientist, Wellcome Sanger Institute, Hinxton, United Kingdom
Since 12.2019	Independent DKFZ Junior Group leader, Heidelberg, Germany
2015-2019	Junior Group leader in Cancer Genetics, Division of Molecular Genetics, German Cancer Research Centre (DKFZ), Heidelberg, Germany
2010-2014	Postdoctoral studies in Neurosciences, Division of Cell and Molecular biology, Karolinska Institute, Stockholm, Sweden (Mentor: Prof. Jonas Frisén)

## OTHER QUALIFICATIONS/ROLES/RESPONSIBILITIES

Year(s)	Qualifications/Roles/Responsibilities
2023	EMBO Young Investigator Programme
Since 2021	Faculty of Medicine of Heidelberg, member
Since 2021	Faculty of Biology of Heidelberg, member (Major Cancer Biology) and Ph.D. examiner
Since 2018	AACR, associate member
Since 2017	Member of Thesis Advisory Committees for graduate students (DKFZ, "Helmholtz International Graduate School for Cancer Research")
2017	Young investigator presentation prize at the Mildred Scheel Cancer conference, Bonn, Germany
2016	Selected for the 2017 Lindau Nobel Laureate meeting, Lindau, Germany
2007	Marie Curie Fellowship

## SELECTED PUBLICATIONS

1. †Rausch T, †Snajder R, Leger A, Simovic M, Giurgiu M, Villacorta L, Henssen AG, Fröhling S, Stegle O, Birney E, Bonder MJ\*, Ernst A\*, Korbel JO\*. Long-read sequencing of diagnosis and post-therapy medulloblastoma reveals complex rearrangement patterns and epigenetic signatures. **Cell Genomics** (2023) 3(4):100281.
2. Khalid U, Simovic M, Hammann LA, Iskar M, Wong JKL, Kumar R, Jugold M, Sill M, Bolkestein M, Kolb T, Hergt M, Devens F, Ecker J, Kool M, Milde T, Westermann F, Benner A, Lewis J, Dietrich S, Pfister SM, Lichter P, Zapatka M, Ernst A. A synergistic interaction between HDAC- and PARP inhibitors in childhood tumors with chromothripsis. **Int J Cancer**. 2022 Aug 15;151(4):590-606.
3. Simovic M, Bolkestein M, Moustafa M, Wong JKL, Körber V, Benedetto S, Khalid U, Schreiber HS, Jugold M, Korshunov A, Hübschmann D, Mack N, Brons S, Wei PC, Breckwoldt MO, Heiland S, Bendszus M, Jürgen D, Höfer T, Zapatka M, Kool M, Pfister SM, Abdollahi A, Ernst A. Carbon ion radiotherapy eradicates medulloblastomas with chromothripsis in an orthotopic Li-Fraumeni patient-derived mouse model. **Neuro Oncol**. 2021 May 28.
4. The age of adult pilocytic astrocytoma cells. Voronina N\*, Aichmueller C\*, Kolb T\*, Korshunov A, Ryzhova M, Barnholtz-Sloan J, Cioffi G, Sill M, von Deimling A, Pfister SM, Gronych J, Jones D, Frisen J, Zapatka J, Ernst A. **Oncogene**. 2021 Apr;40(16):2830-2841.
5. Voronina N, Wong JKL, Hübschmann D, Hlevnjak M, Sebastian Uhrig S, Heilig CE, Horak P, Kreutzfeldt S, Mock A, Stenzinger A, Hutter B, Fröhlich M, Brors B, Jahn A, Klink B, Geldon L, Sieverling L, Feuerbach L, Priya Chudasama P, Beck K, Kroiss M, Heining C, Möhrmann L, Fischer A, Schröck E, Glimm H, Zapatka M, Lichter P, Fröhling S, Ernst A. The landscape of chromothripsis across adult cancer types. **Nat Commun**. 2020 May 8;11(1):2320.
6. Ratnaparkhe M, Wong JKL, Wei PC, Hlevnjak M, Kolb T, Simovic M, Haag D, Paul Y, Devens F, Northcott P, Jones DTW, Kool M, Jauch A, Pastorczak A, Mlynarski W, Korshunov A, Kumar R, Downing SM, Pfister SM, Zapatka M, McKinnon PJ, Alt FW, Lichter P, Ernst A. Defective DNA damage repair leads to frequent catastrophic genomic events in murine and human tumors. **Nat Commun**. 2018 Nov 12;9(1):4760.
7. Ernst A, Jones DT, Maass KK, Rode A, Deeg KI, Jebaraj BM, Korshunov A, Hovestadt V, Tainsky MA, Pajtler KW, Bender S, Brabetz S, Gröbner S, Kool M, Devens F, Edelmann J, Zhang C, Castelo-Branco P, Tabori U, Malkin D, Rippe K, Stilgenbauer S, Pfister SM, Zapatka M, Lichter P. Telomere dysfunction and chromothripsis. **Int J Cancer**. 2016 Jun 15;138(12):2905-14.
8. Ernst A, Frisén J. Adult neurogenesis in humans- common and unique traits in mammals. **PLoS Biol**. 2015 Jan 26;13(1):e1002045.
9. Ernst A, Alkass K, Bernard S, Salehpour M, Perl S, Tisdale J, Possnert G, Druid H, Frisén J. Neurogenesis in the striatum of the adult human brain. **Cell**. 2014 Feb 27;156(5):1072-83.
10. Ernst A, Hofmann S, Ahmadi R, Becker N, Korshunov A, Engel F, Hartmann C, Felsberg J, Sabel M, Peterziel H, Durchdewald M, Hess J, Barbus S, Campos B, Starzinski-Powitz A, Unterberg A, Reifenberger G, Lichter P, Herold-Mende C, Radlwimmer B. Genomic and expression profiling of glioblastoma stem cell-like spheroid cultures identifies novel tumor-relevant genes associated with survival. **Clin Cancer Res**. 2009 Nov 1;15(21):6541-50. Oct 27.