



CLINICAL AND SCIENTIFIC CAREER

Date of birth: 16.03.1990

Number of children: 0

2015 3. State Examination, human medicine (FAU) & Approbation

2009 ACADEMIC EDUCATION AND DEGREES
Start of studies of human medicine at FAU Erlangen-Nürnberg Medical School

2011 1. State Examination/Physikum (Grade 1.0)

2014 2. State Examination (Grade 1.0)

2015 Completion of human medicine studies at FAU Erlangen-Nürnberg Medical School (Grade 1.0)

20.07.2016 MD Thesis: "Dr. med.": *"The effects of an overnight holding of whole blood at room temperature on haemoglobin modification and in vitro markers of red blood cell aging"* at PD Dr. Wei Xiang at the Institute of Biochemistry (Emil-Fischer-Center)

04/2021 Initiation of the habilitation process at the FAU Erlangen-Nürnberg, Medical Faculty

PROFESSIONAL AND MEDICAL CAREER

01.01.2016 Start of residency in surgical and molecular pathology, Institute of Pathology, University Hospital Erlangen (Director: Prof. A. Hartmann)

01.01.2016-31.12.2017 Basic residency in surgical and molecular pathology

Since 01/2018 Residency in surgical and molecular pathology (09/2022 applied for board certification, invitation for examination pending)

03/2021 – 12/2022 Chief resident and resident's speaker

Since 2020 Fellow of the Step 2 des Clinician Scientist Förderprogrammes (CSP) des IZKF der medizinischen Fakultät der FAU Erlangen-Nürnberg

11/2022 Board Certification for Pathology, Bayerische Landesärztekammer

Since 01.01.2022 Board certified pathologist, Institute of Pathology, University Hospital Erlangen (Director: Prof. A. Hartmann)

OTHER COMMITMENTS

Since 2019 Associate member of the patient advocacy and patient information working group of the European Society of Urology (EAU-PI)

Since 2020 Associate member of the EAU section of uropathology (ESUP-EAU)

Since 2021 Speaker of the CSP Step 2 fellows and member of the CSP IZKF board (IZKF)



RESEARCH FOCUS

Translational tumorimmunology (with focus on urothelial malignancies and head and neck squamous cell carcinoma)

Bioinformatical data analysis and data visualization including artificial intelligence

MAJOR SCIENTIFIC AWARDS

2022: Price of the CE Alken-Foundation for extraordinary scientific contributions to the field of urological research.

2022: Price of the Hochgesand-Foundation for extraordinary scientific contributions to the field of pathology.

2021: Best Paper “Basic Research” of the EAU 2021

2019: Price of the German Society of targeted and immunotherapy (DGFIT)



PUBLICATIONS

125 original articles, 27 first/last authorships (pubmed listed); H-Score (google scholar): 23; i10-index 55.

First and last authorships (only original articles, PubMed listed):

- 1) Erlmeier F, Klümper N, Landgraf L, Strissel PL, Strick R, Sikic D, Taubert H, Wach S, Geppert CI, Bahlinger V, Breyer J, Ritter M, Bolenz C, Roghmann F, Erben P, Schwamborn K, Wirtz RM, Horn T, Wullich B, Hölzel M, Hartmann A, Gschwend JE, Weichert W, **Eckstein M**. *Spatial Immunophenotypes of Distant Metastases but not Matched Primary Urothelial Carcinomas Predict Response to Immune Checkpoint Inhibition*. **Eur Urol**. 2022 Nov 10:S0302-2838(22)02774-9. doi: 10.1016/j.eururo.2022.10.020. **Impact Factor: 24.267**
- 2) Beck M, Semrau S, Haderlein M, Gostian AO, Hartwich J, Müller S, Kallies A, Geppert CI, Schonath M, Putz F, Gaipf U, Frey B, Saake M, Iro H, Uder M, Hartmann A, Kuwert T, Fietkau R, **Eckstein M***, Hecht M*. *Differences and Similarities in the Pattern of Early Metabolic and Morphologic Response after Induction Chemo-Immunotherapy versus Induction Chemotherapy Alone in Locally Advanced Squamous Cell Head and Neck Cancer*. **Cancers (Basel)**. 2022 Sep 30;14(19):4811. doi: 10.3390/cancers14194811. **Impact Factor: 6.575**. *contributed equally.
- 3) Köhler SA, Brandl L, Strissel PL, Gloßner L, Ekici AB, Angeloni M, Ferrazzi F, Bahlinger V, Hartmann A, Beckmann MW, **Eckstein M***, Strick R*. *Improved Bladder Tumor RNA Isolation from Archived Tissues Using Methylene Blue for Normalization, Multiplex RNA Hybridization, Sequencing and Subtyping*. **Int J Mol Sci**. 2022 Sep 6;23(18):10267. doi: 10.3390/ijms231810267. **Impact Factor: 6.208**. *contributed equally.
- 4) Klümper N, Sikic D, Saal J, Büttner T, Goldschmidt F, Jarczyk J, Becker P, Zeuschner P, Weinke M, Kalogirou C, Breyer J, Burger M, Nuhn P, Tully K, Roghmann F, Bolenz C, Zengerling F, Wirtz RM, Muders M, Kristiansen G, Bald T, Ellinger J, Wullich B, Hölzel M, Hartmann A, Erben P, Ritter M, **Eckstein M**. *C-reactive protein flare predicts response to anti-PD-(L)1 immune checkpoint blockade in metastatic urothelial carcinoma*. **Eur J Cancer**. 2022 May;167:13-22. doi: 10.1016/j.ejca.2022.02.022. **Impact Factor: 10.002**
- 5) Mayr R*, **Eckstein M***, Wirtz RM, Santiago-Walker A, Baig M, Sundaram R, Carcione JC, Stoehr R, Hartmann A, Bolenz C, Burger M, Otto W, Erben P, Breyer J. *Prognostic and Predictive Value of Fibroblast Growth Factor Receptor Alterations in High-grade Non-muscle-invasive Bladder Cancer Treated with and Without Bacillus Calmette-Guérin Immunotherapy*. **Eur Urol**. 2022 Jun;81(6):606-614. doi: 10.1016/j.eururo.2022.02.028. * contributed equally. **Impact Factor: 24.267**
- 6) **Eckstein M**, Kimmel C, Bruendl J, Weber F, Denzinger S, Gierth M, Burger M, Hartmann A, Otto W, Breyer J. *Tumor budding correlates with tumor invasiveness and predicts worse survival in pT1 non-muscle-invasive bladder cancer*. **Sci Rep**. 2021 Sep 9;11(1):17981. doi: 10.1038/s41598-021-97500-3. **Impact Factor: 4.380**
- 7) Sikic D, Weyerer V, Geppert CI, Bertz S, Lange F, Taubert H, Wach S, Schmitz-Draeger BJ, Wullich B, Hartmann A, **Eckstein M**. *Utility of stromal tumor infiltrating lymphocyte scoring (sTILs) for risk stratification of patients with muscle-invasive urothelial bladder cancer after radical cystectomy*. **Urol Oncol**. 2022 Feb;40(2):63.e19-63.e26. doi: 10.1016/j.urolonc.2021.07.025. **Impact Factor: 2.954**
- 8) **Eckstein M**, Lieb V, Jung R, Sikic D, Weigelt K, Stöhr R, Geppert C, Weyerer V, Bertz S, Serrero G, Yue B, Hartmann A, Wullich B, Taubert H, Wach S. *Combination of GP88 Expression in Tumor Cells and Tumor-Infiltrating Immune Cells Is an Independent Prognostic Factor for Bladder Cancer Patients*. **Cells**. 2021 Jul 15;10(7):1796. doi: 10.3390/cells10071796. **Impact Factor: 6.600**
- 9) Weyerer V, Stoehr R, Bertz S, Lange F, Geppert CI, Wach S, Taubert H, Sikic D, Wullich B, Hartmann A, **Eckstein M**. *Prognostic impact of molecular muscle- invasive bladder cancer subtyping approaches and correlations with variant histology in a population-based mono-institutional cystectomy cohort*. **World J Urol**. 2021 Jul 14. doi: 10.1007/s00345-021-03788-1. **Impact Factor: 4.226**
- 10) Tully KH, Jütte H, Wirtz RM, Jarczyk J, Santiago-Walker A, Zengerling F, Breyer J, Sikic D, Kriegmair MC, von Hardenberg J, Wullich B, Taubert H, Weyerer V, Stoehr R, Bolenz C, Burger M, Porubsky S, Hartmann A, Roghmann F, Erben P, **Eckstein M**. *Prognostic Role of FGFR Alterations and FGFR mRNA Expression in Metastatic Urothelial Cancer Undergoing Checkpoint Inhibitor Therapy*. **Urology**. 2021 Jun 19:S0090-4295(21)00485-4. doi: 10.1016/j.urology.2021.05.055. **Impact Factor: 2.649**
- 11) Weyerer V, Strissel PL, Strick R, Sikic D, Geppert CI, Bertz S, Lange F, Taubert H, Wach S, Breyer J, Bolenz C, Erben P, Schmitz-Draeger BJ, Wullich B, Hartmann A, **Eckstein M**. *Integration of Spatial PD-L1 Expression with the Tumor Immune Microenvironment Outperforms Standard PD-L1 Scoring in Outcome Prediction of Urothelial Cancer Patients*. **Cancers (Basel)**. 2021 May 12;13(10):2327. doi: 10.3390/cancers13102327. **Impact Factor: 6.639**



- 12) Wullweber A, Strick R, Lange F, Sikic D, Taubert H, Wach S, Wullich B, Bertz S, Weyerer V, Stoehr R, Breyer J, Burger M, Hartmann A, Strissel PL, **Eckstein M**. *Bladder tumor subtype commitment occurs in carcinoma in-situ driven by key signaling pathways including ECM remodeling*. **Cancer Res**. 2021 Mar 15;81(6):1552-1566. doi: 10.1158/0008-5472.CAN-20-2336. Epub 2021 Jan 20. **Impact Factor: 12.701**
- 13) Taubert H*, **Eckstein M***, Epple E, Jung R, Weigelt K, Lieb V, Sikic D, Stöhr R, Geppert C, Weyerer V, Bertz S, Kehlen A, Hartmann A, Wullich B, Wach S. *Immune Cell-Associated Protein Expression Helps to Predict Survival in Muscle-Invasive Urothelial Bladder Cancer Patients after Radical Cystectomy and Optional Adjuvant Chemotherapy*. **Cells**. 2021 Jan 15;10(1):159. doi: 10.3390/cells10010159. **Impact Factor: 6.600**. *contributed equally
- 14) König P*, **Eckstein M***, Jung R, Abdulrahman A, Guzman J, Weigelt K, Serrero G, Hayashi J, Geppert C, Stöhr R, Hartmann A, Wullich B, Wach S, Taubert H, Lieb V. *Expression of AR-V7 (Androgen Receptor Variant 7) Protein in Granular Cytoplasmic Structures Is an Independent Prognostic Factor in Prostate Cancer Patients*. **Cancers (Basel)**. 2020 Sep 16;12(9):2639. **Impact Factor: 6.639**; * contributed equally
- 15) **Eckstein M**, Strissel P, Strick R, Weyerer V, Wirtz R, Pfannstiel C, Wullweber A, Lange F, Erben P, Stoehr R, Bertz S, Geppert C, Fuhrich N, Taubert H, Wach S, Breyer J, Otto W, Burger M, Bolenz C, Keck B, Wullich B, Hartmann A, Sikic D; BRIDGE Consortium e.V., Mannheim, Germany. *Cytotoxic T-cell-related gene expression signature predicts improved survival in muscle-invasive urothelial bladder cancer patients after radical cystectomy and adjuvant chemotherapy*. **J Immunother Cancer**. 2020 May;8(1):e000162. doi: 10.1136/jitc-2019-000162. **Impact Factor: 13.751**
- 16) **Eckstein M**, Epple E, Jung R, Weigelt K, Lieb V, Sikic D, Stöhr R, Geppert C, Weyerer V, Bertz S, Kehlen A, Hartmann A, Wullich B, Taubert H, Wach S. *CCL2 Expression in Tumor Cells and Tumor-Infiltrating Immune Cells Shows Divergent Prognostic Potential for Bladder Cancer Patients Depending on Lymph Node Stage*. **Cancers (Basel)**. 2020 May 15;12(5):E1253. doi: 10.3390/cancers12051253. **Impact Factor: 6.639**
- 17) Woerl AC*, **Eckstein M***, Geiger J, Wagner DC, Daher T, Stenzel P, Fernandez A, Hartmann A, Wand M, Roth W, Foersch S. *Deep Learning Predicts Molecular Subtype of Muscle-invasive Bladder Cancer from Conventional Histopathological Slides*. **Eur Urol**. 2020 Apr 27. pii: S0302-2838(20)30255-4. doi: 10.1016/j.eururo.2020.04.023. [Epub ahead of print]. In Press. **Impact Factor: 20.096**; * contributed equally.
- 18) Sommer U*, **Eckstein M***, Ammann J*, Braunschweig T, Macher-Göppinger S, Schwamborn K, Hieke-Schulz S, Harlow G, Flores M, Wullich B, Wirth M, Roth W, Knüchel R, Weichert W, Baretton G, Hartmann A. *Multicentric Analytical and Inter-observer Comparability of Four Clinically Developed Programmed Death-ligand 1 Immunohistochemistry Assays in Advanced Clear-cell Renal Cell Carcinoma*. **Clin Genitourin Cancer**. 2020 Feb 15. pii: S1558-7673(20)30043-4. doi: 10.1016/j.clgc.2020.02.009. [Epub ahead of print]. **Impact Factor 2.872**; * contributed equally.
- 19) Amer Abdulrahman*, **Markus Eckstein***, Rudolf Jung, Juan Guzman, Katrin Weigelt, Ginette Serrero, Binbin Yue, Carol Geppert, Robert Stöhr, Arndt Hartmann, Bernd Wullich, Sven Wach, Helge Taubert and Verena Lieb. *Expression of GP88 (Progranulin) protein is an independent prognostic factor in prostate cancer patients*. **Cancers (Basel)**. In Press. **Impact Factor: 6.639**; * contributed equally
- 20) **Eckstein M**, Sailer V, Nielsen BS, Wittenberg T, Wiesmann V, Lieb V, Nolte E, Hartmann A, Kristiansen G, Wernert N, Wullich B, Taubert H, Wach S; German Prostate Cancer Consortium (DPKK). *Co-staining of microRNAs and their target proteins by miRNA in situ hybridization and immunohistofluorescence on prostate cancer tissue microarrays*. **Lab Invest**. 2019 Jun 11. doi: 10.1038/s41374-019-0251-8. [Epub ahead of print]. **Impact Factor: 5.662**.
- 21) Carolin Pfannstiel, Pamela L Strissel, Katherine B. Chiappinelli, Danijel Sikic, Sven Wach, Ralph Wirtz, Adrian Wullweber, Helge Taubert, Johannes Breyer, Wolfgang Otto, Thomas Worst, Maximilian Burger, Bernd Wullich, Christian Bolenz, Nicole Fuhrich, Carol I. Geppert, Veronika Weyerer, Robert Stöhr, Simone Bertz, Bastian Keck, Franziska Erlmeier, Philipp Erben, Arndt Hartmann, Reiner Strick and **Markus Eckstein**. *The tumor immune microenvironment drives a prognostic relevance that correlates with bladder cancer subtypes*. **Cancer Immunology Research**. 2019 Jun;7(6):923-938. doi: 10.1158/2326-6066.CIR-18-0758. Epub 2019 Apr 15. **Impact Factor: 11.151**.



- 22) **Eckstein M**, Erben P, Kriegmair MC, Worst TS, Weiß CA, Wirtz RM, Wach S, Stoehr R, Sikic D, Geppert C, Weyerer V, Bertz S, Breyer J, Otto W, Keck B, Burger M, Taubert H, Weichert W, Wullich B, Bolenz C, Hartmann A, Erlmeier F. *Performance of the Food and Drug Administration/EMA-approved programmed cell death ligand-1 assays in urothelial carcinoma with emphasis on therapy stratification for first-line use of atezolizumab and pembrolizumab.* **Eur J Cancer.** 2019 Jan;106:234-243. doi: 10.1016/j.ejca.2018.11.007. Epub 2018 Dec 5. **Impact Factor: 9.162**
- 23) **Eckstein M**, Jung R, Weigelt K, Sikic D, Stöhr R, Geppert C, Agaimy A, Lieb V, Hartmann A, Wullich B, Wach S, Taubert H. *Piwi-like 1 and -2 protein expression levels are prognostic factors for muscle invasive urothelial bladder cancer patients.* **Sci Rep.** 2018 Dec 6;8(1):17693. doi: 10.1038/s41598-018-35637-4. **Impact Factor: 4.609**
- 24) **Eckstein M**, Wirtz RM, Gross-Weege M, Breyer J, Otto W, Stoehr R, Sikic D, Keck B, Eidt S, Burger M, Bolenz C, Nitschke K, Porubsky S, Hartmann A, Erben P. *mRNA-Expression of KRT5 and KRT20 Defines Distinct Prognostic Subgroups of Muscle-Invasive Urothelial Bladder Cancer Correlating with Histological Variants.* **Int J Mol Sci.** 2018 Oct 30;19(11). pii: E3396. doi: 10.3390/ijms19113396. **Impact Factor: 6.208**
- 25) **Eckstein M**, Sikic D, Strissel PL, Erlmeier F; BRIDGE Consortium Germany. *Evolution of PD-1 and PD-L1 Gene and Protein Expression in Primary Tumors and Corresponding Liver Metastases of Metastatic Bladder Cancer.* **Eur Urol.** 2018 Oct;74(4):527-529. doi: 10.1016/j.eururo.2018.06.028. Epub 2018 Jul 12. **Impact Factor: 17.581**
- 26) **Eckstein M**, Agaimy A, Woenckhaus J, Winter A, Bittmann I, Janzen J, Bertz S, Haller F, Hartmann A. *DICER1 mutation-positive Giant Botryoid Fibroepithelial polyp of the urinary bladder mimicking embryonal rhabdomyosarcoma.* **Hum Pathol.** 2018 Jun 5. pii: S0046-8177(18)30183-7. doi: 10.1016/j.humpath.2018.05.015. [Epub ahead of print] **Impact Factor: 3.125**
- 27) **Eckstein M**, Wirtz RM, Pfannstiel C, Wach S, Stoehr R, Breyer J, Erlmeier F, Günes C, Nitschke K, Weichert W, Otto W, Keck B, Eidt S, Burger M, Taubert H, Wullich B, Bolenz C, Hartmann A, Erben P. *A multicenter round robin test of PD-L1 expression assessment in urothelial bladder cancer by immunohistochemistry and RT-qPCR with emphasis on prognosis prediction after radical cystectomy.* **Oncotarget.** 2018 Feb 19;9(19):15001-15014. doi: 10.18632/oncotarget.24531. eCollection 2018 Mar 13. **Impact Factor: 5.168**

Co-Authorships (only original articles, PubMed listed):

- 1) Olmos M, Lutz R, Büntemeyer TO, Glajzer J, Nobis CP, Ries J, Möst T, **Eckstein M**, Hecht M, Gostian AO, Erdmann M, Foerster Y, Kesting M, Weber M. *Case report: Patient specific combination of surgery and immunotherapy in advanced squamous cell carcinoma of the head and neck - a case series and review of literature.* **Front Immunol.** 2022 Oct 27;13:970823. doi: 10.3389/fimmu.2022.970823. eCollection 2022. **Impact Factor: 8.786**
- 2) Mingardo E, Beaman G, Grote P, Nordenskjöld A, Newman W, Woolf AS, **Eckstein M**, Hilger AC, Dworschak GC, Rösch W, Ebert AK, Stein R, Brusco A, Di Grazia M, Tamer A, Torres FM, Hernandez JL, Erben P, Maj C, Olmos JM, Riancho JA, Valero C, Hostettler IC, Houlden H, Werring DJ, Schumacher J, Gehlen J, Giel AS, Buerfent BC, Arkani S, Åkesson E, Rotstein E, Ludwig M, Holmdahl G, Giorgio E, Berettini A, Keene D, Cervellione RM, Younsi N, Ortlieb M, Oswald J, Haid B, Promm M, Neissner C, Hirsch K, Stehr M, Schäfer FM, Schmiedeke E, Boemers TM, van Rooij IALM, Feitz WFJ, Marcelis CLM, Lacher M, Nelson J, Ure B, Fortmann C, Gale DP, Chan MMY, Ludwig KU, Nöthen MM, Heilmann S, Zwink N, Jenetzky E, Odermatt B, Knapp M, Reutter H. *A genome-wide association study with tissue transcriptomics identifies genetic drivers for classic bladder exstrophy.* **Commun Biol.** 2022 Nov 9;5(1):1203. doi: 10.1038/s42003-022-04092-3. **Impact Factor: 6.548.**
- 3) Vitali F, Morgenstern N, **Eckstein M**, Atreya R, Waldner M, Hartmann A, Neurath MF, Rath T. *Endocytoscopy for assessing histologic inflammation in ulcerative colitis: development and prospective validation of the ELECT score (ErLangen Endocytoscopy in ColITis).* **Gastrointest Endosc.** 2022 Sep 1:S0016-5107(22)01931-9. doi: 10.1016/j.gie.2022.08.023. **Impact Factor: 10.396.**
- 4) Zeng S, Lan B, Ren X, Zhang S, Schreyer D, **Eckstein M**, Yang H, Britzen-Laurent N, Dahl A, Mukhopadhyay D, Chang D, Kutschick I, Pfeffer S, Bailey P, Biankin A, Grützmann R, Pilarsky C. *CDK7 inhibition augments response to multidrug chemotherapy in pancreatic cancer.* **J Exp Clin Cancer Res.** 2022 Aug 10;41(1):241. doi: 10.1186/s13046-022-02443-w. **Impact Factor: 12.658.**



- 5) An R, Strissel PL, Al-Abboodi M, Robering JW, Supachai R, **Eckstein M**, Peddi A, Hauck T, Bäuerle T, Boccaccini AR, Youssef A, Sun J, Strick R, Horch RE, Boos AM, Kengelbach-Weigand A. *An Innovative Arteriovenous (AV) Loop Breast Cancer Model Tailored for Cancer Research*. **Bioengineering (Basel)**. 2022 Jun 27;9(7):280. doi: 10.3390/bioengineering9070280. **Impact Factor: 5.046**.
- 6) Foersch S, Lang-Schwarz C, **Eckstein M**, Geppert C, Schmitt M, Konukiewitz B, Groll T, Schicktanz F, Engel J, Gleitsmann M, Westhoff CC, Frickel N, Litmeyer AS, Grass A, Jank P, Lange S, Tschurtschenthaler M, Wilhelm D, Roth W, Vieth M, Denkert C, Nagtegaal I, Weichert W, Jesinghaus M. *pT3 colorectal cancer revisited: a multicentric study on the histological depth of invasion in more than 1000 pT3 carcinomas-proposal for a new pT3a/pT3b subclassification*. **Br J Cancer**. 2022 Jul 21. doi: 10.1038/s41416-022-01889-1. **Impact Factor: 9.089**.
- 7) Huebner K, Erlenbach-Wuensch K, Prochazka J, Sheraj I, Hampel C, Mrazkova B, Michalcikova T, Tureckova J, Iatsiuk V, Weissmann A, Ferrazzi F, Kunze P, Nalli E, Sammer E, Gehring A, Cheema MM, **Eckstein M**, Paap EM, Soederberg A, Fischer C, Paul S, Mahadevan V, Ndreshkjana B, Meier MA, Muehlich S, Geppert CI, Merkel S, Grutzmann R, Roehe A, Banerjee S, Hartmann A, Sedlacek R, Schneider-Stock R. *ATF2 loss promotes tumor invasion in colorectal cancer cells via upregulation of cancer driver TROP2*. **Cell Mol Life Sci**. 2022 Jul 15;79(8):423. doi: 10.1007/s00018-022-04445-5. **Impact Factor: 9.237**.
- 8) Sievert M, Oetter N, Mantsopoulos K, Gostian AO, Mueller SK, Koch M, Balk M, Thimsen V, Stelzle F, **Eckstein M**, Iro H, Goncalves M. *Systematic classification of confocal laser endomicroscopy for the diagnosis of oral cavity carcinoma*. **Oral Oncol**. 2022 Jun 21;132:105978. doi: 10.1016/j.oraloncology.2022.105978. **Impact Factor: 5.972**
- 9) Balk M, Rupp R, Mantsopoulos K, Sievert M, Gostian M, Allner M, Grundtner P, **Eckstein M**, Iro H, Hecht M, Gostian AO. *Factors Influencing the Outcome of Head and Neck Cancer of Unknown Primary (HNCUP)*. **J Clin Med**. 2022 May 10;11(10):2689. doi: 10.3390/jcm11102689. **Impact Factor: 4.964**
- 10) Holler A, Cicha I, **Eckstein M**, Haderlein M, Pöttler M, Rappl A, Iro H, Alexiou C. *Extramedullary plasmacytoma: Tumor occurrence and therapeutic concepts-A follow-up*. **Cancer Med**. 2022 May 16. doi: 10.1002/cam4.4816. **Impact Factor: 4.711**
- 11) Weber M, Lutz R, Olmos M, Glajzer J, Baran C, Nobis CP, Möst T, **Eckstein M**, Kesting M, Ries J. *Beyond PD-L1-Identification of Further Potential Therapeutic Targets in Oral Cancer*. **Cancers (Basel)**. 2022 Apr 2;14(7):1812. doi: 10.3390/cancers14071812. **Impact Factor: 6.575**
- 12) Mainz L, Sarhan MAFE, Roth S, Sauer U, Kalogirou C, **Eckstein M**, Gerhard- Hartmann E, Seibert HD, Voelker HU, Geppert C, Rosenwald A, Eilers M, Schulze A, Diefenbacher M, Rosenfeldt MT. *Acute systemic knockdown of Atg7 is lethal and causes pancreatic destruction in shRNA transgenic mice*. **Autophagy**. 2022 Mar 28:1-14. doi: 10.1080/15548627.2022.2052588. Epub ahead of print. PMID: 35343375. **Impact Factor: 13.391**
- 13) Wilm F, Benz M, Bruns V, Baghdadian S, Dextl J, Hartmann D, Kuritcyn P, Weidenfeller M, Wittenberg T, Merkel S, Hartmann A, **Eckstein M**, Geppert CI. *Fast whole-slide cartography in colon cancer histology using superpixels and CNN classification*. **J Med Imaging (Bellingham)**. 2022 Mar;9(2):027501. doi: 10.1117/1.JMI.9.2.027501. **Impact Factor: 3.000**
- 14) Sievert M, Aubreville M, Gostian AO, Mantsopoulos K, Koch M, Mueller SK, **Eckstein M**, Rupp R, Stelzle F, Oetter N, Maier A, Iro H, Goncalves M. *Validity of tissue homogeneity in confocal laser endomicroscopy on the diagnosis of laryngeal and hypopharyngeal squamous cell carcinoma*. **Eur Arch Otorhinolaryngol**. 2022 Aug;279(8):4147-4156. doi: 10.1007/s00405-022-07304-y. **Impact Factor: 3.236**
- 15) Dölling M, **Eckstein M**, Singh J, Schauer C, Schoen J, Shan X, Bozec A, Knopf J, Schett G, Muñoz LE, Herrmann M. *Hypoxia Promotes Neutrophil Survival After Acute Myocardial Infarction*. **Front Immunol**. 2022 Feb 11;13:726153. doi: 10.3389/fimmu.2022.726153. **Impact Factor: 8.786**
- 16) Jasinski-Bergner S, **Eckstein M**, Taubert H, Wach S, Fiebig C, Strick R, Hartmann A, Seliger B. *The Human Leukocyte Antigen G as an Immune Escape Mechanism and Novel Therapeutic Target in Urological Tumors*. **Front Immunol**. 2022 Feb 3;13:811200. doi: 10.3389/fimmu.2022.811200. **Impact Factor: 8.786**
- 17) Sievert M, Mantsopoulos K, Mueller SK, **Eckstein M**, Rupp R, Aubreville M, Stelzle F, Oetter N, Maier A, Iro H, Goncalves M. *Systematic interpretation of confocal laser endomicroscopy: larynx and pharynx confocal imaging score*. **Acta Otorhinolaryngol Ital**. 2022 Feb;42(1):26-33. doi: 10.14639/0392-100X-N1643. **Impact Factor: 2.618**
- 18) Hecht M, **Eckstein M**, Rutzner S, von der Grün J, Illmer T, Klautke G, Laban S, Hautmann MG, Brunner TB, Tamaskovics B, Hinke A, Zhou JG, Frey B, Donaubaauer AJ, Becker I, Semrau S, Hartmann A, Balermipas P, Budach W, Gaipl US, Iro H, Gostian AO, Fietkau R. *Induction*



- chemoimmunotherapy followed by CD8+ immune cell-based patient selection for chemotherapy-free radioimmunotherapy in locally advanced head and neck cancer.* **J Immunother Cancer.** 2022 Jan;10(1):e003747. doi: 10.1136/jitc-2021-003747. **Impact Factor: 12.487**
- 19) Klümper N, Schmucker P, Hahn O, Höh B, Mattigk A, Banek S, Ellinger J, Heinzlbecker J, Sikic D, **Eckstein M**, Strauß A, Zengerling F, Hölzel M, Zeuschner P, Kalogirou C. *C-reactive protein flare-response predicts long-term efficacy to first-line anti-PD-1-based combination therapy in metastatic renal cell carcinoma.* **Clin Transl Immunology.** 2021 Dec 6;10(12):e1358. doi: 10.1002/cti2.1358. **Impact Factor: 6.515**
- 20) Mertens LS, Claps F, Mayr R, Bostrom PJ, Shariat SF, Zwarthoff EC, Boormans JL, Abas C, van Leenders GJLH, Götz S, Hippe K, Bertz S, Neuzillet Y, Sanders J, Broeks A, Peters D, van der Heijden MS, Jewett MAS, Stöhr R, Zlotta AR, **Eckstein M**, Soorjebally Y, van der Schoot DKE, Wullich B, Burger M, Otto W, Radvanyi F, Sirab N, Pouessel D, van der Kwast TH, Hartmann A, Lotan Y, Allory Y, Zuiverloon TCM, van Rhijn BWG. *Prognostic markers in invasive bladder cancer: FGFR3 mutation status versus P53 and KI-67 expression: a multi-center, multi-laboratory analysis in 1058 radical cystectomy patients.* **Urol Oncol.** 2022 Mar;40(3):110.e1-110.e9. doi:10.1016/j.urolonc.2021.10.010. **Impact Factor: 2.954**
- 21) Pour Farid P, **Eckstein M**, Merkel S, Grützmann R, Hartmann A, Bruns V, Benz M, Schneider-Stock R, Geppert CI. *Novel Criteria for Intratumoral Budding with Prognostic Relevance for Colon Cancer and Its Histological Subtypes.* **Int J Mol Sci.** 2021 Dec 3;22(23):13108. doi: 10.3390/ijms222313108. **Impact Factor: 6.208**
- 22) Vitali F, Wein A, Rath T, **Eckstein M**, Neufert C, Siebler J, Atreya R, Hartmann A, Hohenberger W, Weber K, Neurath MF, Grützmann R, Merkel S. *The outcome of patients with inflammatory bowel disease-associated colorectal cancer is not worse than that of patients with sporadic colorectal cancer-a matched-pair analysis of survival.* **Int J Colorectal Dis.** 2022 Feb;37(2):381-391. doi: 10.1007/s00384-021-04072-9. **Impact Factor: 2.796**
- 23) Balk M, Rupp R, Mantsopoulos K, Allner M, Grundtner P, Mueller SK, Traxdorf M, **Eckstein M**, Speer S, Semrau S, Fietkau R, Iro H, Hecht M, Gostian AO. *Relevance of the time interval between surgery and adjuvant radio (chemo) therapy in HPV negative and advanced head and neck carcinoma of unknown primary (CUP).* **BMC Cancer.** 2021 Nov 18;21(1):1236. doi: 10.1186/s12885-021-08885-3. **Impact Factor: 4.638**
- 24) Hellwig K, Ellmann S, **Eckstein M**, Wiesmueller M, Rutzner S, Semrau S, Frey B, Gaipf US, Gostian AO, Hartmann A, Iro H, Fietkau R, Uder M, Hecht M, Bäuerle T. *Predictive Value of Multiparametric MRI for Response to Single-Cycle Induction Chemo-Immunotherapy in Locally Advanced Head and Neck Squamous Cell Carcinoma.* **Front Oncol.** 2021 Oct 21;11:734872. doi: 10.3389/fonc.2021.734872. **Impact Factor: 5.738**
- 25) Weissmann T, Speer S, Putz F, Lettmaier S, Schubert P, Shariff M, Semrau S, Gostian AO, Traxdorf M, Mueller SK, **Eckstein M**, Hautmann M, von der Grün J, Haderlein M, Frey B, Gaipf US, Bert C, Iro H, Fietkau R, Hecht M. *Reduction of Elective Radiotherapy Treatment Volume in Definitive Treatment of Locally Advanced Head and Neck Cancer-Comparison of a Prospective Trial with a Revised Simulated Contouring Approach.* **J Clin Med.** 2021 Oct 11;10(20):4653. doi: 10.3390/jcm10204653. **Impact Factor: 4.964**
- 26) Wieland A, Strissel PL, Schorle H, Bakirci E, Janzen D, Beckmann MW, **Eckstein M**, Dalton PD, Strick R. *Brain and Breast Cancer Cells with PTEN Loss of Function Reveal Enhanced Durotaxis and RHOB Dependent Amoeboid Migration Utilizing 3D Scaffolds and Aligned Microfiber Tracts.* **Cancers (Basel).** 2021 Oct 14;13(20):5144. doi: 10.3390/cancers13205144. **Impact Factor: 6.575**
- 27) Wein A, Stoehr R, Kersting S, Siebler J, Merkel S, Busse D, Wolff K, Ostermeier N, Neufert C, Vitali F, **Eckstein M**, Roth JP, Anhut P, Schreiner W, Uder M, Hartmann A, Neurath MF, Grützmann R. *A Possible Distinct Molecular Subtype (Quintuple-Wildtype) of Metastatic Colorectal Cancer in First-Line Anti-EGFR Therapy with Cetuximab Plus FOLFIRI - Palliative Precision Therapy and a Multidisciplinary Treatment Approach: Interim Analysis of the IVOPAK II Trial with Early Results.* **Oncology.** 2022;100(1):1-11. doi: 10.1159/000519252. **Impact Factor: 3.734**
- 28) Kullmann F, Strissel PL, Strick R, Stoehr R, **Eckstein M**, Bertz S, Wullich B, Sikic D, Wach S, Taubert H, Olbert P, Heers H, Lara MF, Macias ML, Matas-Rico E, Lozano MJ, Prieto D, Hierro I, van Doeveren T, Bieche I, Masliah-Planchon J, Beaupere R, Boormans JL, Allory Y, Herrera-Imbroda B, Hartmann A, Weyerer V. *Frequency of microsatellite instability (MSI) in upper tract urothelial carcinoma: comparison of the Bethesda panel and the Idylla MSI assay in a consecutively collected, multi-institutional cohort.* **J Clin Pathol.** 2021 Sep 28;jclinpath-2021-207855. doi: 10.1136/jclinpath-2021-207855. **Impact Factor: 4.475**



- 29) Sikic D, Taubert H, Breyer J, **Eckstein M**, Weyerer V, Keck B, Kubon J, Otto W, Worst TS, Kriegmair MC, Erben P, Hartmann A, Wullich B, Wirtz RM, Wach S. *The Prognostic Value of FGFR3 Expression in Patients with T1 Non-Muscle Invasive Bladder Cancer*. **Cancer Manag Res**. 2021 Aug 20;13:6567-6578. doi: 10.2147/CMAR.S318893. **Impact Factor: 3.602**
- 30) Klümper N, Ralsler DJ, Zarbl R, Schlack K, Schrader AJ, Rehlinghaus M, Hoffmann MJ, Niegisch G, Uhlig A, Trojan L, Steinestel J, Steinestel K, Wirtz RM, Sikic D, **Eckstein M**, Kristiansen G, Toma M, Hölzel M, Ritter M, Strieth S, Ellinger J, Dietrich D. *CTLA4 promoter hypomethylation is a negative prognostic biomarker at initial diagnosis but predicts response and favorable outcome to anti-PD-1 based immunotherapy in clear cell renal cell carcinoma*. **J Immunother Cancer**. 2021 Aug;9(8):e002949. doi: 10.1136/jitc-2021-002949. **Impact Factor: 12.487**
- 31) Olmos M, Glajzer J, Büntemeyer TO, Frohwitter G, Ries J, **Eckstein M**, Hecht M, Lutz R, Kesting MR, Weber M. *Neoadjuvant Immunotherapy of Oral Squamous Cell Carcinoma: Case Report and Assessment of Histological Response*. **Front Oncol**. 2021 Jul 21;11:720951. doi: 10.3389/fonc.2021.720951. **Impact Factor: 6.244**
- 32) **Eckstein M**, Lieb V, Jung R, Sikic D, Weigelt K, Stöhr R, Geppert C, Weyerer V, Bertz S, Serrero G, Yue B, Hartmann A, Wullich B, Taubert H, Wach S. *Combination of GP88 Expression in Tumor Cells and Tumor-Infiltrating Immune Cells Is an Independent Prognostic Factor for Bladder Cancer Patients*. **Cells**. 2021 Jul 15;10(7):1796. doi: 10.3390/cells10071796. **Impact Factor: 6.600**
- 33) Sievert M, Mantsopoulos K, Mueller SK, Rupp R, **Eckstein M**, Stelzle F, Oetter N, Maier A, Aubreville M, Iro H, Goncalves M. *Validation of a classification and scoring system for the diagnosis of laryngeal and pharyngeal squamous cell carcinomas by confocal laser endomicroscopy*. **Braz J Otorhinolaryngol**. 2021 Jul 20:S1808-8694(21)00124-5. doi: 10.1016/j.bjorl.2021.06.002. **Impact Factor: 1.811**
- 34) Sikic D, **Eckstein M**, Weyerer V, Kubon J, Breyer J, Roghmann F, Kunath F, Keck B, Erben P, Hartmann A, Wirtz RM, Wullich B, Taubert H, Wach S. *High expression of ERBB2 is an independent risk factor for reduced recurrence-free survival in patients with stage T1 non-muscle-invasive bladder cancer*. **Urol Oncol**. 2021 Jul 27:S1078-1439(21)00297-0. doi: 10.1016/j.urolonc.2021.06.021. **Impact Factor: 3.489**
- 35) Sikic D, Taubert H, Wirtz RM, Breyer J, **Eckstein M**, Weyerer V, Kubon J, Erben P, Bolenz C, Burger M, Hartmann A, Wullich B, Wach S, Keck B. *High Androgen Receptor mRNA Expression Is Associated with Improved Outcome in Patients with High-Risk Non-Muscle-Invasive Bladder Cancer*. **Life (Basel)**. 2021 Jun 30;11(7):642. doi: 10.3390/life11070642. **Impact Factor: 3.817**
- 36) Claps F, van de Kamp MW, Mayr R, Bostrom PJ, Boormans JL, **Eckstein M**, Mertens LS, Boevé ER, Neuzillet Y, Burger M, Pouessel D, Trombetta C, Wullich B, van der Kwast TH, Hartmann A, Allory Y, Lotan Y, Shariat SF, Zuiverloon TCM, Mir MC, van Rhijn BWG. *Risk factors associated with positive surgical margins' location at radical cystectomy and their impact on bladder cancer survival*. **World J Urol**. 2021 Jul 1. doi: 10.1007/s00345-021-03776-5. **Impact Factor: 4.226**
- 37) Sievert M, **Eckstein M**, Mantsopoulos K, Mueller SK, Stelzle F, Aubreville M, Oetter N, Maier A, Iro H, Goncalves M. *Impact of intraepithelial capillary loops and atypical vessels in confocal laser endomicroscopy for the diagnosis of laryngeal and hypopharyngeal squamous cell carcinoma*. **Eur Arch Otorhinolaryngol**. 2021 Jun 29. doi: 10.1007/s00405-021-06954-8. **Impact Factor: 2.503**
- 38) Muilwijk T, Akand M, Van der Aa F, De Coninck V, Claessens M, Hente R, **Eckstein M**, Allory Y, Libbrecht L, Joniau S, Gevaert T. *Cytokeratin 5 and cytokeratin 20 inversely correlate with tumour grading in Ta non-muscle-invasive bladder cancer*. **J Cell Mol Med**. 2021 Aug;25(16):7890-7900. doi: 10.1111/jcmm.16712. Epub 2021 Jun 29. **Impact Factor: 5.310**
- 39) Leone M, Cazorla-Vázquez S, Ferrazzi F, Wiederstein JL, Gründl M, Weinstock G, Vergarajauregui S, **Eckstein M**, Krüger M, Gaubatz S, Engel FB. *IQGAP3, a YAP Target, Is Required for Proper Cell-Cycle Progression and Genome Stability*. **Mol Cancer Res**. 2021 Jun 28. doi: 10.1158/1541-7786.MCR-20-0639. **Impact Factor: 5.852**
- 40) Jütte H, Reike M, Wirtz RM, Kriegmair M, Erben P, Tully K, Weyerer V, **Eckstein M**, Hartmann A, Eidt S, Wezel F, Bolenz C, Tannapfel A, Noldus J, Roghmann F. *KRT20, KRT5, ESR1 and ERBB2 Expression Can Predict Pathologic Outcome in Patients Undergoing Neoadjuvant Chemotherapy and Radical Cystectomy for Muscle-Invasive Bladder Cancer*. **J Pers Med**. 2021 May 26;11(6):473. doi: 10.3390/jpm11060473. **Impact Factor: 4.945**
- 41) Eckstein FM, Wurm MC, **Eckstein M**, Wiesmüller M, Müller M, Jehn P, Söder S, Schlittenbauer T. *Imaging, histopathological degree of degeneration and clinical findings - Do these correlate in patients with temporomandibular joint disorders*. **J Stomatol Oral Maxillofac Surg**. 2021 May 12:S2468-7855(21)00108-7. doi: 10.1016/j.jormas.2021.05.002. **Impact Factor: 1.569**
- 42) Weyerer V, Strissel PL, Stöhr C, **Eckstein M**, Wach S, Taubert H, Brandl L, Geppert CI, Wullich B, Cynis H, Beckmann MW, Seliger B, Hartmann A, Strick R. *Endogenous Retroviral-K Envelope Is a*



- Novel Tumor Antigen and Prognostic Indicator of Renal Cell Carcinoma. Front Oncol.* 2021 Apr 22;11:657187. doi: 10.3389/fonc.2021.657187. **Impact Factor: 6.244**
- 43) Semrau S, Gostian AO, Traxdorf M, Eckstein M, Rutzner S, von der Grün J, Illmer T, Hautmann M, Klautke G, Laban S, Brunner T, Tamaskovics B, Frey B, Zhou JG, Geppert CI, Hartmann A, Balermipas P, Budach W, Gaipf U, Iro H, Fietkau R, Hecht M. *Implementation of Double Immune Checkpoint Blockade Increases Response Rate to Induction Chemotherapy in Head and Neck Cancer. Cancers (Basel).* 2021 Apr 19;13(8):1959. doi: 10.3390/cancers13081959. **Impact Factor: 6.639**
- 44) Griewing LM, Schweizer C, Schubert P, Rutzner S, Eckstein M, Frey B, Haderlein M, Weissmann T, Semrau S, Gostian AO, Müller SK, Traxdorf M, Iro H, Zhou JG, Gaipf US, Fietkau R, Hecht M. *Questionnaire-based detection of immune-related adverse events in cancer patients treated with PD-1/PD-L1 immune checkpoint inhibitors. BMC Cancer.* 2021 Mar 24;21(1):314. doi: 10.1186/s12885-021-08006-0. **Impact Factor: 4.430**
- 45) Hiss S, Eckstein M, Segschneider P, Mantsopoulos K, Iro H, Hartmann A, Agaimy A, Haller F, Mueller SK. *Tumour-Infiltrating Lymphocytes (TILs) and PD-L1 Expression Correlate with Lymph Node Metastasis, High-Grade Transformation and Shorter Metastasis-Free Survival in Patients with Acinic Cell Carcinoma (AciCC) of the Salivary Glands. Cancers (Basel).* 2021 Feb 25;13(5):965. doi: 10.3390/cancers13050965. **Impact Factor: 6.639**
- 46) Zhou JG, Donaubaer AJ, Frey B, Becker I, Rutzner S, Eckstein M, Sun R, Ma H, Schubert P, Schweizer C, Fietkau R, Deutsch E, Gaipf U, Hecht M. *Prospective development and validation of a liquid immune profile-based signature (LIPS) to predict response of patients with recurrent/metastatic cancer to immune checkpoint inhibitors. J Immunother Cancer.* 2021 Feb;9(2):e001845. doi: 10.1136/jitc-2020-001845. **Impact Factor: 13.751**
- 47) Weyerer V, Eckstein M, Strissel PL, Wullweber A, Lange F, Tögel L, Geppert CI, Sikic D, Taubert H, Wach S, Wullich B, Hartmann A, Stoehr R, Giedl J. **TERT Promoter Mutation Analysis of Whole-Organ Mapping Bladder Cancers. Genes (Basel).** 2021 Feb 5;12(2):230. doi: 10.3390/genes12020230. **Impact Factor: 4.096**
- 48) Sievert M, Oetter N, Aubreville M, Stelzle F, Maier A, Eckstein M, Mantsopoulos K, Gostian AO, Mueller SK, Koch M, Agaimy A, Iro H, Goncalves M. *Feasibility of intraoperative assessment of safe surgical margins during laryngectomy with confocal laser endomicroscopy: A pilot study. Auris Nasus Larynx.* 2021 Jan 16:S0385-8146(21)00023-7. doi: 10.1016/j.anl.2021.01.005. Epub ahead of print. PMID: 33468350. **Impact Factor: 1.436**
- 49) Wu S, Nitschke K, Worst TS, Fierek A, Weis CA, Eckstein M, Porubsky S, Kriegmair M, Erben P. *Long noncoding RNA MIR31HG and its splice variants regulate proliferation and migration: prognostic implications for muscle invasive bladder cancer. J Exp Clin Cancer Res.* 2020 Dec 17;39(1):288. **Impact Factor: 11.161**
- 50) Schubert P, Rutzner S, Eckstein M, Frey B, Schweizer C, Haderlein M, Lettmaier S, Semrau S, Gostian AO, Zhou JG, Gaipf US, Fietkau R, Hecht M. *Prospective Evaluation of All-lesion Versus Single-lesion Radiotherapy in Combination With PD-1/PD-L1 Immune Checkpoint Inhibitors. Front Oncol.* 2020 Oct 29;10:576643. **Impact Factor: 6.244**
- 51) Hülsen S, Lippolis E, Ferrazzi F, Otto W, Distel L, Fietkau R, Denzinger S, Breyer J, Burger M, Bertz S, Eckstein M, Ebner A, Hartmann A, Geppert CI. *High Stroma T-Cell Infiltration is Associated with Better Survival in Stage pT1 Bladder Cancer. Int J Mol Sci.* 2020 Nov 9;21(21):8407. **Impact Factor: 5.923**
- 52) Mueller SK, Mantsopoulos K, Semrau S, Agaimy A, Eckstein M, Traxdorf M, Gostian AO, Goncalves M, Sievert M, Haderlein M, Grundtner P, Hecht M, Koch M, Fietkau R, Iro H, Scherl C. *Influence of p16 status on indication and outcome of salvage neck dissection in oropharyngeal cancer. Acta Otolaryngol.* 2020 Oct 28:1-6. **Impact Factor: 3.446**
- 53) Wahby S, Jarczyk J, Fierek A, Heinkele J, Weis CA, Eckstein M, Martini T, Porubsky S, Hafner M, Erben P. *POFUT1 mRNA expression as an independent prognostic parameter in muscle-invasive bladder cancer. Transl Oncol.* 2021 Jan;14(1):100900. **Impact Factor: 4.01**
- 54) Schweizer C, Schubert P, Rutzner S, Eckstein M, Haderlein M, Lettmaier S, Semrau S, Gostian AO, Frey B, Gaipf US, Zhou JG, Fietkau R, Hecht M. *Prospective evaluation of the prognostic value of immune-related adverse events in patients with non-melanoma solid tumour treated with PD-1/PD-L1 inhibitors alone and in combination with radiotherapy. Eur J Cancer.* 2020 Nov;140:55-62. **Impact Factor: 9.162**
- 55) Hecht M, Gostian AO, Eckstein M, Rutzner S, von der Grün J, Illmer T, Hautmann MG, Klautke G, Laban S, Brunner T, Hinke A, Becker I, Frey B, Semrau S, Geppert CI, Hartmann A, Balermipas P, Budach W, Gaipf US, Iro H, Fietkau R. *Safety and efficacy of single cycle induction treatment with*



- cisplatin/docetaxel/ durvalumab/tremelimumab in locally advanced HNSCC: first results of CheckRad-CD8. **J Immunother Cancer**. 2020 Oct;8(2):e001378. **Impact Factor: 13.751***
- 56) Kubon J, Sikic D, **Eckstein M**, Weyerer V, Stöhr R, Neumann A, Keck B, Wullich B, Hartmann A, Wirtz RM, Taubert H, Wach S. *Analysis of CXCL9, PD1 and PD-L1 mRNA in Stage T1 Non-Muscle Invasive Bladder Cancer and Their Association with Prognosis. **Cancers (Basel)**. 2020 Sep 29;12(10):2794. **Impact Factor: 6.639***
- 57) van Rhijn BWG, Mertens LS, Mayr R, Bostrom PJ, Real FX, Zwarthoff EC, Boormans JL, Abas C, van Leenders GJLH, Götz S, Hippe K, Bertz S, Neuzillet Y, Sanders J, Broeks A, van der Heijden MS, Jewett MAS, Marquez M, Stoehr R, Zlotta AR, **Eckstein M**, Soorjebally Y, Roshani H, Burger M, Otto W, Radvanyi F, Sirab N, Pouessel D, Wullich B, van der Kwast TH, Malats N, Hartmann A, Allory Y, Zuiverloon TCM. *FGFR3 Mutation Status and FGFR3 Expression in a Large Bladder Cancer Cohort Treated by Radical Cystectomy: Implications for Anti-FGFR3 treatment ?. **Eur Urol**. 2020 Nov;78(5):682-687. **Impact Factor: 20.096***
- 58) Mark C, Grundy TJ, Strissel PL, Böhringer D, Grummel N, Gerum R, Steinwachs J, Hack CC, Beckmann MW, **Eckstein M**, Strick R, O'Neill GM, Fabry B. *Collective forces of tumor spheroids in three-dimensional biopolymer networks. **Elife**. 2020 Apr 30;9. pii: e51912. doi: 10.7554/eLife.51912. **Impact Factor: 8.140***
- 59) Sikic D, **Eckstein M**, Wirtz RM, Jarczyk J, Worst TS, Porubsky S, Keck B, Kunath F, Weyerer V, Breyer J, Otto W, Rinaldetti S, Bolenz C, Hartmann A, Wullich B, Erben P. *FOXA1 Gene Expression for Defining Molecular Subtypes of Muscle-Invasive Bladder Cancer after Radical Cystectomy. **J Clin Med**. 2020 Apr 2;9(4). pii: E994. doi: 10.3390/jcm9040994. **Impact Factor: 4.241***
- 60) Weyerer V, **Eckstein M**, Compérat E, Juette H, Gaisa NT, Allory Y, Stöhr R, Wullich B, Rouprêt M, Hartmann A, Bertz S. *Pure Large Nested Variant of Urothelial Carcinoma (LNUC) Is the Prototype of an FGFR3 Mutated Aggressive Urothelial Carcinoma with Luminal-Papillary Phenotype. **Cancers (Basel)**. 2020 Mar 24;12(3). pii: E763. doi: 10.3390/cancers12030763. **Impact Factor: 6.639***
- 61) Morsch R, Rose M, Maurer A, Cassataro MA, Braunschweig T, Knüchel R, Vögeli TA, Ecke T, **Eckstein M**, Weyerer V, Esposito I, Ackermann M, Niegisch G, Gaisa NT; German Study Group of Bladder Cancer (DFBK e.V.). *Therapeutic implications of PD-L1 expression in bladder cancer with squamous differentiation. **BMC Cancer**. 2020 Mar 18;20(1):230. doi: 10.1186/s12885-020-06727-2. **Impact Factor: 4.430***
- 62) Lindner P, Paul S, **Eckstein M**, Hampel C, Muenzner JK, Erlenbach-Wuensch K, Ahmed HP, Mahadevan V, Brabletz T, Hartmann A, Vera J, Schneider-Stock R. *EMT transcription factor ZEB1 alters the epigenetic landscape of colorectal cancer cells. **Cell Death Dis**. 2020 Feb 24;11(2):147. doi: 10.1038/s41419-020-2340-4. **Impact Factor: 8.469***
- 63) Bertz S, Ensser A, Stoehr R, **Eckstein M**, Apel H, Mayr D, Buettner-Herold M, Gaisa NT, Compérat E, Wullich B, Hartmann A, Knöll A. *Variant morphology and random chromosomal integration of BK polyomavirus in posttransplant urothelial carcinomas. **Mod Pathol**. 2020 Feb 11. doi: 10.1038/s41379-020-0489-0. [Epub ahead of print]. **Impact Factor: 7.842***
- 64) Steinmann S, Kunze P, Hampel C, **Eckstein M**, Bertram Bramsen J, Muenzner JK, Carlé B, Ndreshkjana B, Kemenes S, Gasparini P, Friedrich O, Andersen C, Geppert C, Wang S, Eyupoglu I, Bäuerle T, Hartmann A, Schneider-Stock R. *DAPK1 loss triggers tumor invasion in colorectal tumor cells. **Cell Death Dis**. 2019 Nov 26;10(12):895. doi: 10.1038/s41419-019-2122-z. **Impact Factor: 8.469***
- 65) Wu S, Nitschke K, Heinkele J, Weis CA, Worst TS, **Eckstein M**, Porubsky S, Erben P. *ANLN and TLE2 in Muscle Invasive Bladder Cancer: A Functional and Clinical Evaluation Based on In Silico and In Vitro Data. **Cancers (Basel)**. 2019 Nov 21;11(12). pii: E1840. doi: 10.3390/cancers11121840. **Impact Factor: 6.639***
- 66) Spachmann PJ, Azzolina V, Weber F, Evert M, **Eckstein M**, Denzinger S, Burger M, Otto W, Breyer J. *Loss of CHEK2 Predicts Progression in Stage pT1 Non-Muscle-Invasive Bladder Cancer (NMIBC). **Pathol Oncol Res**. 2019 Sep 10. doi: 10.1007/s12253-019-00745-7. **Impact Factor: 2.433***
- 67) Weyerer V, Weisser R, Moskalev EA, Haller F, Stoehr R, **Eckstein M**, Zinnall U, Gaisa NT, Compérat E, Perren A, Keck B, Allory Y, Kristiansen G, Wullich B, Agaimy A, Hartmann A, Bertz S. *Distinct genetic alterations and luminal molecular subtype in nested variant of urothelial carcinoma (NVUC). **Histopathology**. 2019 Jul 26. doi: 10.1111/his.13958. **Impact Factor: 5.087***
- 68) Musa G, Cazorla-Vázquez S, van Amerongen MJ, Stemmler MP, **Eckstein M**, Hartmann A, Braun T, Brabletz T, Engel FB. *Gpr126 (Adgrg6) is expressed in cell types known to be exposed to mechanical stimuli. **Ann N Y Acad Sci**. 2019 Jun 19. doi: 10.1111/nyas.14135. [Epub ahead of print]. **Impact Factor: 5.691***

- 69) Sikic D, Wirtz RM, Wach S, Dyrskjøt L, Erben P, Bolenz C, Breyer J, Otto W, Hoadley KA, Lerner SP, **Eckstein M**, Hartmann A, Keck B. Androgen Receptor mRNA Expression in Urothelial Carcinoma of the Bladder: A Retrospective Analysis of Two Independent Cohorts. **Transl Oncol.** 2019 Apr;12(4):661-668. doi: 10.1016/j.tranon.2019.01.005. Epub 2019 Mar 2. **Impact Factor: 4.01**
- 70) Breyer J, Wirtz RM, Erben P, Rinaldetti S, Worst TS, Stoehr R, **Eckstein M**, Sikic D, Denzinger S, Burger M, Hartmann A, Otto W. FOXM1 overexpression is associated with adverse outcome and predicts response to intravesical instillation therapy in stage pT1 non-muscle-invasive bladder cancer. **BJU Int.** 2019 Jan;123(1):187-196. doi: 10.1111/bju.14525. Epub 2018 Sep 9. **Impact Factor: 5.588**
- 71) Muenzner JK, Kunze P, Lindner P, Polaschek S, Menke K, **Eckstein M**, Geppert CI, Chanvorachote P, Baeuerle T, Hartmann A, Schneider-Stock R. Generation and characterization of hepatocellular carcinoma cell lines with enhanced cancer stem cell potential. **J Cell Mol Med.** 2018 Dec;22(12):6238-6248. doi: 10.1111/jcmm.13911. Epub 2018 Oct 2. **Impact Factor: 4.499**
- 72) Martini T, Heinkele J, Mayr R, Weis CA, Wezel F, Wahby S, **Eckstein M**, Schnöller T, Breyer J, Wirtz R, Ritter M, Bolenz C, Erben P. Predictive value of lymphangiogenesis and proliferation markers on mRNA level in urothelial carcinoma of the bladder after radical cystectomy. **Urol Oncol.** 2018 Dec;36(12):530.e19-530.e27. doi: 10.1016/j.urolonc.2018.09.003. Epub 2018 Nov 13. **Impact Factor: 3.397**
- 73) Worst TS, Weis CA, Stöhr R, Bertz S, **Eckstein M**, Otto W, Breyer J, Hartmann A, Bolenz C, Wirtz RM, Erben P. CDKN2A as transcriptomic marker for muscle-invasive bladder cancer risk stratification and therapy decision-making. **Sci Rep.** 2018 Sep 26;8(1):14383. doi: 10.1038/s41598-018-32569-x. **Impact Factor: 4.609**
- 74) Rinaldetti S, Rempel E, Worst TS, **Eckstein M**, Steidler A, Weiss CA, Bolenz C, Hartmann A, Erben P. Subclassification, survival prediction and drug target analyses of chemotherapy-naïve muscle-invasive bladder cancer with a molecular screening. **Oncotarget.** 2018 May 25;9(40):25935-25945. doi: 10.18632/oncotarget.25407. eCollection 2018 May 25. **Impact Factor: 5.168**
- 75) Breyer J, Wirtz RM, Erben P, Worst TS, Stoehr R, **Eckstein M**, Bertz S, Sikic D, Denzinger S, Burger M, Hartmann A, Otto W; Bladder Cancer Research Initiative for Drug Targets Germany (BRIDGE) Consortium eV, Mannheim, Germany. High CDKN2A/p16 and Low FGFR3 Expression Predict Progressive Potential of Stage pT1 Urothelial Bladder Carcinoma. **Clin Genitourin Cancer.** 2018 Feb 2. pii: S1558-7673(18)30036-3. doi: 10.1016/j.clgc.2018.01.009. **Impact Factor: 2.539**
- 76) Otto W, van Rhijn BW, Breyer J, Bertz S, **Eckstein M**, Mayr R, Lausenmeyer EM, Denzinger S, Burger M, Hartmann A. Infiltrative lamina propria invasion pattern as an independent predictor for cancer-specific and overall survival of instillation treatment-naïve stage T1 high-grade urothelial bladder cancer. **Int J Urol.** 2018 Feb 22. doi: 10.1111/iju.13532. **Impact Factor: 1.941**
- 77) Breyer J, Wirtz RM, Otto W, Erben P, Worst TS, Stoehr R, **Eckstein M**, Denzinger S, Burger M, Hartmann A. High PDL1 mRNA expression predicts better survival of stage pT1 non-muscle-invasive bladder cancer (NMIBC) patients. **Cancer Immunol Immunother.** 2017 Nov 17. doi: 10.1007/s00262-017-2093-9. **Impact Factor: 4.225**
- 78) Rinaldetti S, Wirtz RM, Worst TS, **Eckstein M**, Weiss CA, Breyer J, Otto W, Bolenz C, Hartmann A, Erben P. FOXM1 predicts overall and disease specific survival in muscle-invasive urothelial carcinoma and presents a differential expression between bladder cancer subtypes. **Oncotarget.** 2017 Jul 18;8(29):47595-47606. doi: 10.18632/oncotarget.17394. **Impact Factor: 5.168**
- 79) Sikic D, Breyer J, Hartmann A, Burger M, Erben P, Denzinger S, **Eckstein M**, Stöhr R, Wach S, Wullich B, Keck B, Wirtz RM, Otto W. High Androgen Receptor mRNA Expression Is Independently Associated with Prolonged Cancer-Specific and Recurrence-Free Survival in Stage T1 Bladder Cancer. **Transl Oncol.** 2017 Jun;10(3):340-345. doi: 10.1016/j.tranon.2017.01.013. Epub 2017 Mar 22. **Impact Factor: 3.071**
- 80) Breyer J, Wirtz RM, Otto W, Erben P, Kriegmair MC, Stoehr R, **Eckstein M**, Eidt S, Denzinger S, Burger M, Hartmann A; BRIDGE Consortium. In stage pT1 non-muscle-invasive bladder cancer (NMIBC), high KRT20 and low KRT5 mRNA expression identify the luminal subtype and predict recurrence and survival. **Virchows Arch.** 2017 Mar;470(3):267-274. doi: 10.1007/s00428-017-2064-8. Epub 2017 Jan 10. **Impact Factor: 2.936**
- 81) Breyer J, Otto W, Wirtz RM, Wullich B, Keck B, Erben P, Kriegmair MC, Stoehr R, **Eckstein M**, Laible M, Schlombs K, Eidt S, Denzinger S, Burger M, Hartmann A; BRIDGE Consortium. ERBB2 Expression as Potential Risk-Stratification for Early Cystectomy in Patients with pT1 Bladder Cancer and Concomitant Carcinoma in situ. **Urol Int.** 2017;98(3):282-289. doi: 10.1159/000453670. Epub 2016 Dec 17. **Impact Factor: 1.508**



CURRENT FUNDING:

Funded Project	Funding Agency/Company	Funding Sum
German Biomarker Substudy of the Phase III NIAGARA Trial (2021-2025) PI: Markus Eckstein	AstraZeneca Ltd./ MedImmune	Total: 380.050,00 Euro
Value of FGFR alterations on treatment outcomes in muscle invasive bladder cancer (MIBC): a single center RWE collaboration project (2020-2024) PI: Markus Eckstein	Janssen Research & Development, LLC	Total: 889.516,00 Euro Total for UKER: 538.340,00 Euro
Role of FGFR alterations on subjects with metastatic urothelial cancer undergoing checkpoint inhibition (FOSMIC-Trial; 2018-2021) PIs: Markus Eckstein	Janssen Research & Development, LLC	190.535,50 Euro
MONITURB-Trial (2017-2021) PIs: Markus Eckstein	Cepheid	11.635,94 Euro
Role of FGFR alterations in stromal invasive urothelial bladder cancer (2019-2021) PIs: Markus Eckstein	Janssen Research & Development, LLC	138.985,37 Euro
ELAN-Project: ERVs in the anti-tumoral immune response via IFN-signaling during development of MIBC (2020-2021) PI: Markus Eckstein	IZKF - FAU-Erlangen-Nürnberg	48.650,00 Euro
Clinician Scientist Program Step 2 - FAU Erlangen-Nürnberg – Structured Program and Rotation Salary (2020-2022)	IZKF - FAU-Erlangen-Nürnberg	97.500,00 Euro
Validation of a checkpoint molecular gene expression typer in locally advanced bladder cancer PI: Markus Eckstein	Cepheid	33.452,39 Euro
Checkrad-CD8 Trial Pathology representative PI: Dr. Markus Eckstein	Radiation Oncology UKER/AstraZeneca	50.000,00 Euro
Timing and induction of the immune response including ERV expression, tumor infiltrating lymphocytes, tertiary lymphoid structures and tumor subtype commitment during	Else Kröner-Fresenius-Stiftung (First application program)	136.391,00 Euro



development of muscle-invasive urothelial carcinoma. (2022-2024) PI: Dr. Markus Eckstein		
Developing an artificial intelligence based classifier for FGFR alterations in various stages of urothelial bladder cancer. (2022-2025) PI: Dr. Markus Eckstein	Janssen Research & Development, LLC	403.000,00 Euro
HANCOCK – Establishment of a multidimensional Head and Neck Cancer Dataset (2022-2024) PIs: Prof. Andreas Kist, Dr. Markus Eckstein, PD Dr. Antoniu-Oreste Gostian	BMBF	Total Funding: 270.000,00 Euro Own Funding: 56.000,00 Euro
Deciphering the role of TROP2 and its interplay with NECTIN-4 and Her2neu expression in muscle-invasive urothelial cancer of the bladder PIs: Dr. Markus Eckstein	Gilead	380.000,00 Euro
Robust high-throughput spatial characterization (multi-Omics) of the immunological microenvironment on the "use case" of metastatic urothelial carcinoma under immune checkpoint inhibitor therapy. (2022-2023) PI: Dr. Markus Eckstein	Bayerisches Zentrum für Krebsforschung (BZKF)	100.000,00 Euro
Timing and induction of the immune response including ERV expression, tumor infiltrating lymphocytes, tertiary lymphoid structures and tumor subtype commitment during development of muscle-invasive urothelial carcinoma. (2023) Rotation Salary to Dr. Markus Eckstein	IZKF - FAU-Erlangen-Nürnberg	48.750,00 Euro
Translational spatial tumor immunobiology of urothelial cancer. (2022-2023) PI: Dr. Markus Eckstein	IZKF - FAU-Erlangen-Nürnberg	59.850,00 Euro
Ferroptosis and phospholipid metabolism for chemo- and immunotherapy sensitization in urothelial cancer (2023-2026)	IZKF - FAU-Erlangen-Nürnberg	Total Funding: 549.600,00 Euro Own Funding: 267.300 Euro



Pls: Dr. Markus Eckstein & Prof. Felix Engel		
-------------------------------------------------	--	--

APPLIED FUNDING:

- SAFEST Consortium (Bonn, Cologne, Tübingen, Erlangen) – Molecular mechanisms driving immune adverse related events of immunotherapy in urological malignancies, NSCLC and HNSCC (appr. 3.000.000,00 Euro, own applied funding: 350.000,00); Agency: Bruno-Helene-Jöster Stiftung.
- Role of S100A8 and S100A9 proteins in driving endogenous retrovirus induced immune responses in urothelial cancer (total applied funding appr. 500.000 Euro; own applied funding appr. 250k Euro); Agency: DFG.

CONTRIBUTIONS TO CLINICAL STUDIES:

- **Checkrad-CD8 Trial – A multi-center Phase II interventional trial of induction chemo-immunotherapy (Durvalumab-Tremelimumab + Docetaxel/Cis-Platin) in locally advanced non-resectable head and neck squamous cell carcinoma (Active, recruiting closed)**
Function: Reference pathologist and biomarker program leader (**Co-PI**; including digital spatial PD-L1 and CD8 assessment in 120 patients from 7 german centers; translational transcriptome wide tumor profiling of all included patients currently running).
- **PeLeRAD Trial - Pembrolizumab and Lenvatinib After Definitive Chemoradiation of Locally Advanced head and neck squamous cell carcinoma (Phase II; active, ahead of recruiting).**
Function: Reference pathologist and biomarker program leader (**Co-PI**; including digital spatial PD-L1 and CD8 assessment in 47 patients from 8 german centers); translational transcriptome wide tumor profiling and mutational profiling with TSO500 planned for comprehensive baseline profiling of patients.
- **NIAGARA IMMUPRO – German biomarker substudy in the global phase III NIAGARA study (neoadjuvant Gemcitabine/Cis-Platin versus Gemcitabine/Cis-Platin + Durvalumab) in muscle-invasive urothelial carcinoma suitable for cystectomy (active, recruiting closed).**
Function: **Principal investigator**; the study aims for comprehensive spatial tumor immune microenvironment analysis utilizing digital spatial immune cell profiling, transcriptome wide mRNA sequencing and whole exome sequencing in a total of 1:1 randomized 55 patients.
- **PED-MSOT Study.**
Function: **Pathologist**. Assessment of gastrointestinal biopsies (reference assessment of CED scores).

Dr. Markus Eckstein
Erlangen, 19.12.2022