

Publikationen mit PIs des SFB824 seit 2013:

1. Abdullahi S, Jakel M, Behrend SJ, **Steiger K**, Topping G, Krabbe T, Colombo A, Sandig V, Schiergens TS, Thasler WE, Werner J, Lichtenthaler SF, Schmid RM, Ebert O, Altomonte J. A Novel Chimeric Oncolytic Virus Vector for Improved Safety and Efficacy as a Platform for the Treatment of Hepatocellular Carcinoma. *J Virol* 2018;92
2. Ai J, Wormann SM, Gorgulu K, Vallespinos M, Zagorac S, Alcalá S, Wu N, Kabacaoglu D, Berninger A, Navarro D, Kaya-Aksoy E, Ruess DA, Ciecieski KJ, Kowalska M, Demir EI, Ceyhan GO, Heid I, Braren R, Riemann M, Schreiner S, Hofmann S, Kutschke M, Jastroch M, Slotta-Huspenina J, Muckenhuber A, Schlitter AM, Schmid RM, **Steiger K**, Diakopoulos KN, Lesina M, Sainz B, Jr., Algul H. BCL3 couples cancer stem cell enrichment with pancreatic cancer molecular subtypes. *Gastroenterology* 2021
3. Altomonte J, Marozin S, De Toni EN, Rizzani A, Esposito I, **Steiger K**, Feuchtinger A, Hellerbrand C, Schmid RM, Ebert O. Antifibrotic properties of transarterial oncolytic VSV therapy for hepatocellular carcinoma in rats with thioacetamide-induced liver fibrosis. *Mol Ther* 2013;21:2032-42
4. Benitz S, Straub T, Mahajan UM, Mutter J, Czernel S, Unruh T, Wingerath B, Deubler S, Fahr L, Cheng T, Nahnsen S, Bruns P, Kong B, Raulefs S, Ceyhan GO, Mayerle J, **Steiger K**, Esposito I, Kleeff J, Michalski CW, Regel I. Ring1b-dependent epigenetic remodelling is an essential prerequisite for pancreatic carcinogenesis. *Gut* 2019;68:2007-18
5. Biederstadt A, Hassan Z, Schneeweis C, Schick M, Schneider L, Muckenhuber A, Hong Y, Siegers G, Nilsson L, Wirth M, Dantes Z, **Steiger K**, Schunck K, Langston S, Lenhof HP, Coluccio A, Orben F, Slawska J, Scherger A, Saur D, Müller S, Rad R, **Weichert W**, Nilsson J, Reichert M, Schneider G, Keller U. SUMO pathway inhibition targets an aggressive pancreatic cancer subtype. *Gut* 2020;69:1472-82
6. Bliemsrieder E, Kaissis G, Grashei M, Topping G, Altomonte J, Hundshammer C, Lohofer F, Heid I, Keim D, Gebrekidan S, Trajkovic-Arsic M, Winkelkotte A, **Steiger K**, Nawroth R, Siveke J, Schwaiger M, Makowski M, Schilling F, Braren R. Hyperpolarized (13)C pyruvate magnetic resonance spectroscopy for in vivo metabolic phenotyping of rat HCC. *Sci Rep* 2021;11:1191
7. Cheng T, Zhang Z, Jian Z, Raulefs S, Schlitter AM, **Steiger K**, Maeritz N, Zhao Y, Shen S, Zou X, Ceyhan GO, Friess H, Kleeff J, Michalski CW, Kong B. Ductal obstruction promotes formation of preneoplastic lesions from the pancreatic ductal compartment. *Int J Cancer* 2019;144:2529-38
8. Dantes Z, Yen HY, Pfarr N, Winter C, **Steiger K**, Muckenhuber A, Hennig A, Lange S, Engleitner T, Ollinger R, Maresch R, Orben F, Heid I, Kaissis G, Shi K, Topping G, Stogbauer F, Wirth M, Peschke K, Papargyriou A, Rezaee-Oghazi M, Feldmann K, Schafer AP, Ranjan R, Lubeseder-Martellato C, Stange DE, Welsch T, Martignoni M, Ceyhan GO, Friess H, Herner A, Liotta L, Treiber M, von Figura G, Abdelhafez M, Klare P, Schlag C, Algul H, Siveke J, Braren R, Weirich G, **Weichert W**, Saur D, Rad R, Schmid RM, Schneider G, Reichert M. Implementing cell-free DNA of pancreatic cancer patient-derived organoids for personalized oncology. *JCI Insight* 2020;5
9. De Rose F, Braeuer M, Braesch-Andersen S, Otto AM, **Steiger K**, Reder S, Mall S, Nekolla S, Schwaiger M, Weber WA, Bartolazzi A, D'Alessandria C. Galectin-3 Targeting in Thyroid Orthotopic Tumors Opens New Ways to Characterize Thyroid Cancer. *J Nucl Med* 2019;60:770-6
10. Demir IE, Jager C, Schlitter AM, Konukiewicz B, Stecher L, Schorn S, Tieftrunk E, Scheufele F, Calavrezos L, Schirren R, Esposito I, **Weichert W**, Friess H, Ceyhan GO. R0 Versus R1 Resection Matters after Pancreaticoduodenectomy, and Less after Distal or Total Pancreatectomy for Pancreatic Cancer. *Ann Surg* 2018;268:1058-68
11. Deuschle FC, Morath V, Schiefner A, Brandt C, Ballke S, Reder S, **Steiger K**, Schwaiger M, Weber W, Skerra A. Development of a high affinity Anticalin((R)) directed against human CD98hc for theranostic applications. *Theranostics* 2020;10:2172-87

12. Dreyer TF, Kuhn S, Stange C, Heithorst N, Schilling D, Jelsma J, Sievert W, Seitz S, Stangl SR, Hapfelmeier A, Noske A, Wege AK, **Weichert W**, Ruland J, Schmitt M, Dorn J, Kiechle M, Reuning U, Magdolen V, Multhoff G, Bronger H. The chemokine CX3CL1 improves trastuzumab efficacy in HER2-low-expressing cancer in vitro and in vivo. *Cancer Immunol Res* 2021
13. Durst M, Koellisch U, Daniele V, **Steiger K**, Schwaiger M, Haase A, Menzel MI, Schulte RF, Aime S, Reineri F. Probing lactate secretion in tumours with hyperpolarised NMR. *NMR Biomed* 2016;29:1079-87
14. Duwel S, Hundshammer C, Gersch M, Feuerecker B, **Steiger K**, Buck A, Walch A, Haase A, Glaser SJ, Schwaiger M, Schilling F. Imaging of pH in vivo using hyperpolarized (13)C-labelled zymonic acid. *Nat Commun* 2017;8:15126
15. Fang HY, Munch NS, Schottelius M, Ingermann J, Liu H, Schauer M, Stangl S, Multhoff G, **Steiger K**, Gerngross C, Jesinghaus M, **Weichert W**, Kuhl AA, Sepulveda AR, Wester HJ, Wang TC, Quante M. CXCR4 Is a Potential Target for Diagnostic PET/CT Imaging in Barrett's Dysplasia and Esophageal Adenocarcinoma. *Clin Cancer Res* 2018;24:1048-61
16. Feldmann K, Maurer C, Peschke K, Teller S, Schuck K, **Steiger K**, Engleitner T, Ollinger R, Nomura A, Wirges N, Papargyriou A, Jahan Sarker RS, Ranjan RA, Dantes Z, **Weichert W**, Rustgi AK, Schmid RM, Rad R, Schneider G, Saur D, Reichert M. Mesenchymal Plasticity Regulated by Prrx1 Drives Aggressive Pancreatic Cancer Biology. *Gastroenterology* 2021;160:346-61.e24
17. Gorgulu K, Diakopoulos KN, Ai J, Schoeps B, Kabacaoglu D, Karpathaki AF, Ciecieski KJ, Kaya-Aksoy E, Ruess DA, Berninger A, Kowalska M, Stevanovic M, Wormann SM, Wartmann T, Zhao Y, Halangk W, Voronina S, Tepikin A, Schlitter AM, **Steiger K**, Artati A, Adamski J, Aichler M, Walch A, Jastroch M, Hartleben G, Mantzoros CS, **Weichert W**, Schmid RM, Herzig S, Kruger A, Sainz B, Jr., Lesina M, Algul H. Levels of the Autophagy-Related 5 Protein Affect Progression and Metastasis of Pancreatic Tumors in Mice. *Gastroenterology* 2019;156:203-17.e20
18. Gross C, **Steiger K**, Sayyed S, Heid I, Feuchtinger A, Walch A, Hess J, Unger K, Zitzelsberger H, Settles M, Schlitter AM, Dworniczak J, Altomonte J, Ebert O, Schwaiger M, Rummeny E, Steingotter A, Esposito I, Braren R. Model Matters: Differences in Orthotopic Rat Hepatocellular Carcinoma Physiology Determine Therapy Response to Sorafenib. *Clin Cancer Res* 2015;21:4440-50
19. Gruner BM, Winkelmann I, Feuchtinger A, Sun N, Balluff B, Teichmann N, Herner A, Kalideris E, **Steiger K**, Braren R, Aichler M, Esposito I, Schmid RM, Walch A, Siveke JT. Modeling Therapy Response and Spatial Tissue Distribution of Erlotinib in Pancreatic Cancer. *Mol Cancer Ther* 2016;15:1145-52
20. Gurlevik E, Fleischmann-Mundt B, Brooks J, Demir IE, **Steiger K**, Ribback S, Yevsa T, Woller N, Kloos A, Ostroumov D, Armbrecht N, Manns MP, Dombrowski F, Saborowski M, Kleine M, Wirth TC, Oettle H, Ceyhan GO, Esposito I, Calvisi DF, Kubicka S, Kuhnel F. Administration of Gemcitabine After Pancreatic Tumor Resection in Mice Induces an Antitumor Immune Response Mediated by Natural Killer Cells. *Gastroenterology* 2016;151:338-50.e7
21. Habringer S, Lapa C, Herhaus P, Schottelius M, Istvanffy R, **Steiger K**, Slotta-Huspenina J, Schirbel A, Hanscheid H, Kircher S, Buck AK, Gotze K, Vick B, Jeremias I, Schwaiger M, Peschel C, Oostendorp R, Wester HJ, Grigoleit GU, Keller U. Dual Targeting of Acute Leukemia and Supporting Niche by CXCR4-Directed Theranostics. *Theranostics* 2018;8:369-83
22. Hassan Z, Schneeweis C, Wirth M, Muller S, Geismann C, Neuss T, **Steiger K**, Kramer OH, Schmid RM, Rad R, Arlt A, Reichert M, Saur D, Schneider G. Important role of Nfkb2 in the Kras(G12D)-driven carcinogenesis in the pancreas. *Pancreatol* 2021
23. Hassan Z, Schneeweis C, Wirth M, Veltkamp C, Dantes Z, Feuerecker B, Ceyhan GO, Knauer SK, **Weichert W**, Schmid RM, Stauber R, Arlt A, Kramer OH, Rad R, Reichert M, Saur D, Schneider G. MTOR inhibitor-based combination therapies for pancreatic cancer. *Br J Cancer* 2018;118:366-77

24. He H, Stylogiannis A, Afshari P, Wiedemann T, **Steiger K**, Buehler A, Zakian C, Ntziachristos V. Capsule optoacoustic endoscopy for esophageal imaging. *J Biophotonics* 2019;12:e201800439
25. Heid I, **Steiger K**, Trajkovic-Arsic M, Settles M, Esswein MR, Erkan M, Kleeff J, Jager C, Friess H, Haller B, Steingotter A, Schmid RM, Schwaiger M, Rummeny EJ, Esposito I, Siveke JT, Braren RF. Co-clinical Assessment of Tumor Cellularity in Pancreatic Cancer. *Clin Cancer Res* 2017;23:1461-70
26. Herhaus P, Habringer S, Philipp-Abbrederis K, Vag T, Gerngross C, Schottelius M, Slotta-Huspenina J, **Steiger K**, Altmann T, Weisser T, Steidle S, Schick M, Jacobs L, Slawska J, Muller-Thomas C, Verbeek M, Subklewe M, Peschel C, Wester HJ, Schwaiger M, Gotze K, Keller U. Targeted positron emission tomography imaging of CXCR4 expression in patients with acute myeloid leukemia. *Haematologica* 2016;101:932-40
27. Herhaus P, Habringer S, Vag T, **Steiger K**, Slotta-Huspenina J, Gerngross C, Wiestler B, Wester HJ, Schwaiger M, Keller U. Response assessment with the CXCR4-directed positron emission tomography tracer [(68)Ga]Pentixafor in a patient with extranodal marginal zone lymphoma of the orbital cavities. *EJNMMI Res* 2017;7:51
28. Hidalgo-Sastre A, Brodylo RL, Lubeseder-Martellato C, Sipos B, **Steiger K**, Lee M, von Figura G, Grunwald B, Zhong S, Trajkovic-Arsic M, Neff F, Schmid RM, Siveke JT. Hes1 Controls Exocrine Cell Plasticity and Restricts Development of Pancreatic Ductal Adenocarcinoma in a Mouse Model. *Am J Pathol* 2016;186:2934-44
29. Hidalgo-Sastre A, Desztics J, Dantes Z, Schulte K, Ensarioglu HK, Basse-archibong B, Ollinger R, Engleiter T, Rayner L, Einwachter H, Daniel JM, Altaee ASA, **Steiger K**, Lesina M, Rad R, Reichert M, von Figura G, Siveke JT, Schmid RM, Lubeseder-Martellato C. Loss of Wasl improves pancreatic cancer outcome. *JCI Insight* 2020;5
30. Hidalgo-Sastre A, Lubeseder-Martellato C, Engleitner T, **Steiger K**, Zhong S, Desztics J, Ollinger R, Rad R, Schmid RM, Hermeking H, Siveke JT, von Figura G. Mir34a constrains pancreatic carcinogenesis. *Sci Rep* 2020;10:9654
31. Holzgreve A, Biczok A, Ruf VC, Liesche-Starnecker F, **Steiger K**, Kirchner MA, Unterrainer M, Mittlmeier L, Herms J, Schlegel J, Bartenstein P, Tonn JC, Albert NL, Suchorska B. PSMA Expression in Glioblastoma as a Basis for Theranostic Approaches: A Retrospective, Correlational Panel Study Including Immunohistochemistry, Clinical Parameters and PET Imaging. *Front Oncol* 2021;11:646387
32. Hundshammer C, Braeuer M, Muller CA, Hansen AE, Schillmaier M, Duwel S, Feuerecker B, Glaser SJ, Haase A, **Weichert W**, **Steiger K**, Cabello J, Schilling F, Hovener JB, Kjaer A, Nekolla SG, Schwaiger M. Simultaneous characterization of tumor cellularity and the Warburg effect with PET, MRI and hyperpolarized (13)C-MRSI. *Theranostics* 2018;8:4765-80
33. Hyafil F, Pelisek J, Laitinen I, Schottelius M, Mohring M, Doring Y, van der Vorst EP, Kallmayer M, **Steiger K**, Poschenrieder A, Notni J, Fischer J, Baumgartner C, Rischpler C, Nekolla SG, Weber C, Eckstein HH, Wester HJ, Schwaiger M. Imaging the Cytokine Receptor CXCR4 in Atherosclerotic Plaques with the Radiotracer (68)Ga-Pentixafor for PET. *J Nucl Med* 2017;58:499-506
34. Issels RD, Lindner LH, von Bergwelt-Baildon M, Lang P, Rischpler C, Diem H, Mosetter B, Eckl J, Schendel DJ, Salat C, Stotzer O, Burdach S, von Luttichau-Teichert I, Handgretinger R, Neumann J, Kirchner T, **Steiger K**, Boxberg M, Mansmann U, Multhoff G, Noessner E. Systemic antitumor effect by regional hyperthermia combined with low-dose chemotherapy and immunologic correlates in an adolescent patient with rhabdomyosarcoma - a case report. *Int J Hyperthermia* 2020;37:55-65
35. Jesinghaus M, Boxberg M, Wilhelm D, Munch S, Dapper H, Quante M, Schlag C, Lange S, Budczies J, Konukiewitz B, Mollenhauer M, Schlitter AM, Becker KF, Feith M, Friess H, **Steiger K**, Combs SE, **Weichert W**. Post-neoadjuvant cellular dissociation grading based on tumour budding and cell

- nest size is associated with therapy response and survival in oesophageal squamous cell carcinoma. *Br J Cancer* 2019;121:1050-7
36. Jesinghaus M, Bruhl F, **Steiger K**, Klare P, Reiser M, Scheiter A, Konukiewitz B, Kuhn P, Munch S, Quante M, Schmid RM, Wilhelm D, Feith M, Friess H, Combs SE, Saur D, Boxberg M, **Weichert W**. Cellular Dissociation Grading Based on the Parameters Tumor Budding and Cell Nest Size in Pretherapeutic Biopsy Specimens Allows for Prognostic Patient Stratification in Esophageal Squamous Cell Carcinoma Independent From Clinical Staging. *Am J Surg Pathol* 2019;43:618-27
 37. Jian Z, Cheng T, Zhang Z, Raulefs S, Shi K, **Steiger K**, Maeritz N, Kleigrew K, Hofmann T, Benitz S, Bruns P, Lamp D, Jastroch M, Akkan J, Jager C, Huang P, Nie S, Shen S, Zou X, Ceyhan GO, Michalski CW, Friess H, Kleeff J, Kong B. Glycemic Variability Promotes Both Local Invasion and Metastatic Colonization by Pancreatic Ductal Adenocarcinoma. *Cell Mol Gastroenterol Hepatol* 2018;6:429-49
 38. Jungmann F, Kaissis GA, Ziegelmayr S, Harder F, Schilling C, Yen HY, **Steiger K**, **Weichert W**, Schirren R, Demir IE, Friess H, Makowski MR, Braren RF, Lohofer FK. Prediction of Tumor Cellularity in Resectable PDAC from Preoperative Computed Tomography Imaging. *Cancers (Basel)* 2021;13
 39. Kaissis G, Ziegelmayr S, Lohofer F, Algul H, Eiber M, **Weichert W**, Schmid R, Friess H, Rummeny E, Ankerst D, Siveke J, Braren R. A machine learning model for the prediction of survival and tumor subtype in pancreatic ductal adenocarcinoma from preoperative diffusion-weighted imaging. *Eur Radiol Exp* 2019;3:41
 40. Kaissis G, Ziegelmayr S, Lohofer F, **Steiger K**, Algul H, Muckenhuber A, Yen HY, Rummeny E, Friess H, Schmid R, **Weichert W**, Siveke JT, Braren R. A machine learning algorithm predicts molecular subtypes in pancreatic ductal adenocarcinoma with differential response to gemcitabine-based versus FOLFIRINOX chemotherapy. *PLoS One* 2019;14:e0218642
 41. Kaissis GA, Jungmann F, Ziegelmayr S, Lohofer FK, Harder FN, Schlitter AM, Muckenhuber A, **Steiger K**, Schirren R, Friess H, Schmid R, **Weichert W**, Makowski MR, Braren RF. Multiparametric Modelling of Survival in Pancreatic Ductal Adenocarcinoma Using Clinical, Histomorphological, Genetic and Image-Derived Parameters. *J Clin Med* 2020;9
 42. Kaissis GA, Lohofer FK, Horl M, Heid I, **Steiger K**, Munoz-Alvarez KA, Schwaiger M, Rummeny EJ, **Weichert W**, Paprottka P, Braren R. Combined DCE-MRI- and FDG-PET enable histopathological grading prediction in a rat model of hepatocellular carcinoma. *Eur J Radiol* 2020;124:108848
 43. Kaissis GA, Ziegelmayr S, Lohofer FK, Harder FN, Jungmann F, Sasse D, Muckenhuber A, Yen HY, **Steiger K**, Siveke J, Friess H, Schmid R, **Weichert W**, Makowski MR, Braren RF. Image-Based Molecular Phenotyping of Pancreatic Ductal Adenocarcinoma. *J Clin Med* 2020;9
 44. Kapp TG, Di Leva FS, Notni J, Rader AFB, Fottner M, Reichart F, Reich D, Wurzer A, **Steiger K**, Novellino E, Marelli UK, Wester HJ, Marinelli L, Kessler H. N-Methylation of isoDGR Peptides: Discovery of a Selective alpha5beta1-Integrin Ligand as a Potent Tumor Imaging Agent. *J Med Chem* 2018;61:2490-9
 45. Krabbe T, Marek J, Groll T, **Steiger K**, Schmid RM, Krackhardt AM, Altomonte J. Adoptive T Cell Therapy Is Complemented by Oncolytic Virotherapy with Fusogenic VSV-NDV in Combination Treatment of Murine Melanoma. *Cancers (Basel)* 2021;13
 46. Kunze B, Middelhoff M, Maurer HC, Agibalova T, Anand A, Buhner AM, Fang HY, Baumeister T, **Steiger K**, Strangmann J, Schmid RM, Wang TC, Quante M. Notch signaling drives development of Barrett's metaplasia from Dclk1-positive epithelial tuft cells in the murine gastric mucosa. *Sci Rep* 2021;11:4509
 47. Liotta L, Lange S, Maurer HC, Olive KP, Braren R, Pfarr N, Burger S, Muckenhuber A, Jesinghaus M, **Steiger K**, **Weichert W**, Friess H, Schmid R, Algul H, Jost PJ, Ramser J, Fischer C, Quante AS, Reichert M, Quante M. PALLD mutation in a European family conveys a stromal predisposition for familial pancreatic cancer. *JCI Insight* 2021;6

48. Mall S, Yusufi N, Wagner R, Klar R, Bianchi H, **Steiger K**, Straub M, Audehm S, Laitinen I, Aichler M, Peschel C, Ziegler S, Mustafa M, Schwaiger M, D'Alessandria C, Krackhardt AM. Immuno-PET Imaging of Engineered Human T Cells in Tumors. *Cancer Res* 2016;76:4113-23
49. Maresch R, Mueller S, Veltkamp C, Ollinger R, Friedrich M, Heid I, **Steiger K**, Weber J, Engleitner T, Barenboim M, Klein S, Louzada S, Banerjee R, Strong A, Stauber T, Gross N, Geumann U, Lange S, Ringelhan M, Varela I, Unger K, Yang F, Schmid RM, Vassiliou GS, Braren R, Schneider G, Heikenwalder M, Bradley A, Saur D, Rad R. Multiplexed pancreatic genome engineering and cancer induction by transfection-based CRISPR/Cas9 delivery in mice. *Nat Commun* 2016;7:10770
50. Mayer KE, Mall S, Yusufi N, Gosmann D, **Steiger K**, Russell L, Bianchi HO, Audehm S, Wagner R, Braunlein E, Stelzl A, Bassermann F, **Weichert W**, Weber W, Schwaiger M, D'Alessandria C, Krackhardt AM. T-cell functionality testing is highly relevant to developing novel immuno-tracers monitoring T cells in the context of immunotherapies and revealed CD7 as an attractive target. *Theranostics* 2018;8:6070-87
51. Melzer MK, Zeitlinger L, Mall S, **Steiger K**, Schmid RM, Ebert O, Krackhardt A, Altomonte J. Enhanced Safety and Efficacy of Oncolytic VSV Therapy by Combination with T Cell Receptor Transgenic T Cells as Carriers. *Mol Ther Oncolytics* 2019;12:26-40
52. Mohr H, Ballke S, Bechmann N, Gulde S, Malekzadeh-Najafabadi J, Peitzsch M, Ntziachristos V, **Steiger K**, Wiedemann T, Pellegata NS. Mutation of the Cell Cycle Regulator p27kip1 Drives Pseudohypoxic Pheochromocytoma Development. *Cancers (Basel)* 2021;13
53. Mota Reyes C, Teller S, Muckenhuber A, Konukiewitz B, Safak O, **Weichert W**, Friess H, Ceyhan GO, Demir IE. Neoadjuvant Therapy Remodels the Pancreatic Cancer Microenvironment via Depletion of Protumorigenic Immune Cells. *Clin Cancer Res* 2020;26:220-31
54. Muckenhuber A, Berger AK, Schlitter AM, **Steiger K**, Konukiewitz B, Trumpp A, Eils R, Werner J, Friess H, Esposito I, Kloppel G, Ceyhan GO, Jesinghaus M, Denkert C, Bahra M, Stenzinger A, Sprick MR, Jager D, Springfield C, **Weichert W**. Pancreatic Ductal Adenocarcinoma Subtyping Using the Biomarkers Hepatocyte Nuclear Factor-1A and Cytokeratin-81 Correlates with Outcome and Treatment Response. *Clin Cancer Res* 2018;24:351-9
55. Mueller S, Engleitner T, Maresch R, Zukowska M, Lange S, Kaltenbacher T, Konukiewitz B, Ollinger R, Zwiebel M, Strong A, Yen HY, Banerjee R, Louzada S, Fu B, Seidler B, Gotzfried J, Schuck K, Hassan Z, Arbeiter A, Schonhuber N, Klein S, Veltkamp C, Friedrich M, Rad L, Barenboim M, Ziegenhain C, Hess J, Dovey OM, Eser S, Parekh S, Constantino-Casas F, de la Rosa J, Sierra MI, Fraga M, Mayerle J, Kloppel G, Cadinanos J, Liu P, Vassiliou G, **Weichert W**, **Steiger K**, Enard W, Schmid RM, Yang F, Unger K, Schneider G, Varela I, Bradley A, Saur D, Rad R. Evolutionary routes and KRAS dosage define pancreatic cancer phenotypes. *Nature* 2018;554:62-8
56. Munch NS, Fang HY, Ingermann J, Maurer HC, Anand A, Kellner V, Sahn V, Wiethaler M, Baumeister T, Wein F, Einwachter H, Bolze F, Klingenspor M, Haller D, Kavanagh M, Lysaght J, Friedman R, Dannenberg AJ, Pollak M, Holt PR, Muthupalani S, Fox JG, Whary MT, Lee Y, Ren TY, Elliot R, Fitzgerald R, **Steiger K**, Schmid RM, Wang TC, Quante M. High-Fat Diet Accelerates Carcinogenesis in a Mouse Model of Barrett's Esophagus via Interleukin 8 and Alterations to the Gut Microbiome. *Gastroenterology* 2019;157:492-506.e2
57. Munch S, Pigorsch SU, Devecka M, Dapper H, Feith M, Friess H, **Weichert W**, Jesinghaus M, Braren R, Combs SE, Habermehl D. Neoadjuvant versus definitive chemoradiation in patients with squamous cell carcinoma of the esophagus. *Radiat Oncol* 2019;14:66
58. Munkhbaatar E, Dietzen M, Agrawal D, Anton M, Jesinghaus M, Boxberg M, Pfarr N, Bidola P, Uhrig S, Hockendorf U, Meinhardt AL, Wahida A, Heid I, Braren R, Mishra R, Warth A, Muley T, Poh PSP, Wang X, Frohling S, **Steiger K**, Slotta-Huspenina J, van Griensven M, Pfeiffer F, Lange S, Rad R, Spella M, Stathopoulos GT, Ruland J, Bassermann F, **Weichert W**, Strasser A, Branca C,

- Heikenwalder M, Swanton C, McGranahan N, Jost PJ. MCL-1 gains occur with high frequency in lung adenocarcinoma and can be targeted therapeutically. *Nat Commun* 2020;11:4527
59. Munoz-Alvarez KA, Altomonte J, Laitinen I, Ziegler S, **Steiger K**, Esposito I, Schmid RM, Ebert O. PET imaging of oncolytic VSV expressing the mutant HSV-1 thymidine kinase transgene in a preclinical HCC rat model. *Mol Ther* 2015;23:728-36
60. Nieberler M, Reuning U, Reichart F, Notni J, Wester HJ, Schwaiger M, Weinmuller M, Rader A, **Steiger K**, Kessler H. Exploring the Role of RGD-Recognizing Integrins in Cancer. *Cancers (Basel)* 2017;9
61. Niu G, Hellmuth I, Flisikowska T, Pausch H, Rieblinger B, Carrapeiro A, Schade B, Bohm B, Kappe E, Fischer K, Klinger B, **Steiger K**, Burgkart R, Bourdon JC, Saur D, Kind A, Schnieke A, Flisikowski K. Porcine model elucidates function of p53 isoform in carcinogenesis and reveals novel circTP53 RNA. *Oncogene* 2021;40:1896-908
62. Notni J, Gassert FT, **Steiger K**, Sommer P, **Weichert W**, Rummeny EJ, Schwaiger M, Kessler H, Meier R, Kimm MA. Correction to: In vivo imaging of early stages of rheumatoid arthritis by alpha5beta1-integrin-targeted positron emission tomography. *EJNMMI Res* 2019;9:107
63. Notni J, Gassert FT, **Steiger K**, Sommer P, **Weichert W**, Rummeny EJ, Schwaiger M, Kessler H, Meier R, Kimm MA. In vivo imaging of early stages of rheumatoid arthritis by alpha5beta1-integrin-targeted positron emission tomography. *EJNMMI Res* 2019;9:87
64. Notni J, Reich D, Maltsev OV, Kapp TG, **Steiger K**, Hoffmann F, Esposito I, **Weichert W**, Kessler H, Wester HJ. In Vivo PET Imaging of the Cancer Integrin alphavbeta6 Using (68)Ga- Labeled Cyclic RGD Nonapeptides. *J Nucl Med* 2017;58:671-7
65. Notni J, **Steiger K**, Hoffmann F, Reich D, Kapp TG, Rechenmacher F, Neubauer S, Kessler H, Wester HJ. Complementary, Selective PET Imaging of Integrin Subtypes alpha5beta1 and alphavbeta3 Using 68Ga-Aquibepirin and 68Ga-Avebetrin. *J Nucl Med* 2016;57:460-6
66. Notni J, **Steiger K**, Hoffmann F, Reich D, Schwaiger M, Kessler H, Wester HJ. Variation of Specific Activities of 68Ga-Aquibepirin and 68Ga-Avebetrin Enables Selective PET Imaging of Different Expression Levels of Integrins alpha5beta1 and alphavbeta3. *J Nucl Med* 2016;57:1618-24
67. Quigley NG, **Steiger K**, Richter F, **Weichert W**, Hoberuck S, Kotzerke J, Notni J. Tracking a TGF-beta activator in vivo: sensitive PET imaging of alphavbeta8-integrin with the Ga-68-labeled cyclic RGD octapeptide trimer Ga-68-Triveoctin. *EJNMMI Res* 2020;10:133
68. Quigley NG, Tomassi S, Di Leva FS, Di Maro S, Richter F, **Steiger K**, Kossatz S, Marinelli L, Notni J. Click-Chemistry (CuAAC) Trimerization of an alphav beta6 Integrin Targeting Ga-68-Peptide: Enhanced Contrast for in-Vivo PET Imaging of Human Lung Adenocarcinoma Xenografts. *Chembiochem* 2020;21:2836-43
69. Rad R, Rad L, Wang W, Strong A, Ponstingl H, Bronner IF, Mayho M, **Steiger K**, Weber J, Hieber M, Veltkamp C, Eser S, Geumann U, Ollinger R, Zukowska M, Barenboim M, Maresch R, Cadinanos J, Friedrich M, Varela I, Constantino-Casas F, Sarver A, Ten Hoeve J, Prosser H, Seidler B, Bauer J, Heikenwalder M, Metzakopian E, Krug A, Ehmer U, Schneider G, Knosel T, Rummele P, Aust D, Grutzmann R, Pilarsky C, Ning Z, Wessels L, Schmid RM, Quail MA, Vassiliou G, Esposito I, Liu P, Saur D, Bradley A. A conditional piggyBac transposition system for genetic screening in mice identifies oncogenic networks in pancreatic cancer. *Nat Genet* 2015;47:47-56
70. Rauscher I, Maurer T, **Steiger K**, Schwaiger M, Eiber M. Image of the Month: Multifocal 68Ga Prostate-Specific Membrane Antigen Ligand Uptake in the Skeleton in a Man With Both Prostate Cancer and Multiple Myeloma. *Clin Nucl Med* 2017;42:547-8
71. Reichart F, Maltsev OV, Kapp TG, Rader AFB, Weinmuller M, Marelli UK, Notni J, Wurzer A, Beck R, Wester HJ, **Steiger K**, Di Maro S, Di Leva FS, Marinelli L, Nieberler M, Reuning U, Schwaiger M, Kessler H. Selective Targeting of Integrin alphavbeta8 by a Highly Active Cyclic Peptide. *J Med Chem* 2019;62:2024-37

72. Reichert M, Bakir B, Moreira L, Pitarresi JR, Feldmann K, Simon L, Suzuki K, Maddipati R, Rhim AD, Schlitter AM, Kriegsmann M, **Weichert W**, Wirth M, Schuck K, Schneider G, Saur D, Reynolds AB, Klein-Szanto AJ, Pehlivanoglu B, Memis B, Adsay NV, Rustgi AK. Regulation of Epithelial Plasticity Determines Metastatic Organotropism in Pancreatic Cancer. *Dev Cell* 2018;45:696-711.e8
73. Richter A, Knorr K, Schlapschy M, Robu S, Morath V, Mendler C, Yen HY, **Steiger K**, Kiechle M, Weber W, Skerra A, Schwaiger M. First In-Human Medical Imaging with a PASylated (89)Zr-Labeled Anti-HER2 Fab-Fragment in a Patient with Metastatic Breast Cancer. *Nucl Med Mol Imaging* 2020;54:114-9
74. Saalfrank A, Janssen KP, Ravon M, Flisikowski K, Eser S, **Steiger K**, Flisikowska T, Muller-Fliedner P, Schulze E, Bronner C, Gnann A, Kappe E, Bohm B, Schade B, Certa U, Saur D, Esposito I, Kind A, Schnieke A. A porcine model of osteosarcoma. *Oncogenesis* 2016;5:e210
75. Schlitter AM, Jesinghaus M, Jager C, Konukiewitz B, Muckenhuber A, Demir IE, Bahra M, Denkert C, Friess H, Kloepfel G, Ceyhan GO, **Weichert W**. pT but not pN stage of the 8th TNM classification significantly improves prognostication in pancreatic ductal adenocarcinoma. *Eur J Cancer* 2017;84:121-9
76. Schmohl KA, Han Y, Tutter M, Schwenk N, Sarker RSJ, **Steiger K**, Ziegler SI, Bartenstein P, Nelson PJ, Spitzweg C. Integrin alphavbeta3-dependent thyroid hormone effects on tumour proliferation and vascularisation. *Endocr Relat Cancer* 2020;27:685-97
77. Schottelius M, Wurzer A, Wissmiller K, Beck R, Koch M, Gorpas D, Notni J, Buckle T, van Oosterom MN, **Steiger K**, Ntziachristos V, Schwaiger M, van Leeuwen FWB, Wester HJ. Synthesis and Preclinical Characterization of the PSMA-Targeted Hybrid Tracer PSMA-I&F for Nuclear and Fluorescence Imaging of Prostate Cancer. *J Nucl Med* 2019;60:71-8
78. Schug C, Gupta A, Urnauer S, **Steiger K**, Cheung PF, Neander C, Savvatakis K, Schmohl KA, Trajkovic-Arsic M, Schwenk N, Schwaiger M, Nelson PJ, Siveke JT, Spitzweg C. A Novel Approach for Image-Guided (131)I Therapy of Pancreatic Ductal Adenocarcinoma Using Mesenchymal Stem Cell-Mediated NIS Gene Delivery. *Mol Cancer Res* 2019;17:310-20
79. Schug C, Kitzberger C, Sievert W, Spellerberg R, Tutter M, Schmohl KA, Eberlein B, Biedermann T, **Steiger K**, Zach C, Schwaiger M, Multhoff G, Wagner E, Nelson PJ, Spitzweg C. Radiation-Induced Amplification of TGFB1-Induced Mesenchymal Stem Cell-Mediated Sodium Iodide Symporter (NIS) Gene (131)I Therapy. *Clin Cancer Res* 2019;25:5997-6008
80. Schug C, Urnauer S, Jaeckel C, Schmohl KA, Tutter M, **Steiger K**, Schwenk N, Schwaiger M, Wagner E, Nelson PJ, Spitzweg C. TGFB1-driven mesenchymal stem cell-mediated NIS gene transfer. *Endocr Relat Cancer* 2019;26:89-101
81. Schwarzenbock SM, Knieling A, Souvatzoglou M, Kurth J, **Steiger K**, Eiber M, Esposito I, Retz M, Kubler H, Gschwend JE, Schwaiger M, Krause BJ, Thalgott M. [11C]Choline PET/CT in therapy response assessment of a neoadjuvant therapy in locally advanced and high risk prostate cancer before radical prostatectomy. *Oncotarget* 2016;7:63747-57
82. Shevtsov M, Stangl S, Nikolaev B, Yakovleva L, Marchenko Y, Tagaeva R, Sievert W, Pitkin E, Mazur A, Tolstoy P, Galibin O, Ryzhov V, **Steiger K**, Smirnov O, Khachatryan W, Chester K, Multhoff G. Granzyme B Functionalized Nanoparticles Targeting Membrane Hsp70-Positive Tumors for Multimodal Cancer Theranostics. *Small* 2019;15:e1900205
83. Sievert W, Stangl S, **Steiger K**, Multhoff G. Improved Overall Survival of Mice by Reducing Lung Side Effects After High-Precision Heart Irradiation Using a Small Animal Radiation Research Platform. *Int J Radiat Oncol Biol Phys* 2018;101:671-9
84. **Steiger K**, Schlitter AM, **Weichert W**, Esposito I, Wester HJ, Notni J. Perspective of alphavbeta6-Integrin Imaging for Clinical Management of Pancreatic Carcinoma and Its Precursor Lesions. *Mol Imaging* 2017;16:1536012117709384

85. Trajkovic-Arsic M, Heid I, **Steiger K**, Gupta A, Fingerle A, Worner C, Teichmann N, Sengkwawoh-Lueong S, Wenzel P, Beer AJ, Esposito I, Braren R, Siveke JT. Apparent Diffusion Coefficient (ADC) predicts therapy response in pancreatic ductal adenocarcinoma. *Sci Rep* 2017;7:17038
86. Trajkovic-Arsic M, Mohajerani P, Sarantopoulos A, Kalideris E, **Steiger K**, Esposito I, Ma X, Themelis G, Burton N, Michalski CW, Kleeff J, Stangl S, Beer AJ, Pohle K, Wester HJ, Schmid RM, Braren R, Ntziachristos V, Siveke JT. Multimodal molecular imaging of integrin alphavbeta3 for in vivo detection of pancreatic cancer. *J Nucl Med* 2014;55:446-51
87. Vag T, **Steiger K**, Rossmann A, Keller U, Noske A, Herhaus P, Ettl J, Niemeyer M, Wester HJ, Schwaiger M. PET imaging of chemokine receptor CXCR4 in patients with primary and recurrent breast carcinoma. *EJNMMI Res* 2018;8:90
88. Vahadane A, Peng T, Sethi A, Albarqouni S, Wang L, Baust M, **Steiger K**, Schlitter AM, Esposito I, Navab N. Structure-Preserving Color Normalization and Sparse Stain Separation for Histological Images. *IEEE Trans Med Imaging* 2016;35:1962-71
89. Varasteh Z, Hyafil F, Anizan N, Diallo D, Aid-Launais R, Mohanta S, Li Y, Braeuer M, **Steiger K**, Vigne J, Qin Z, Nekolla SG, Fabre JE, Doring Y, Le Guludec D, Habenicht A, Vera DR, Schwaiger M. Targeting mannose receptor expression on macrophages in atherosclerotic plaques of apolipoprotein E-knockout mice using (111)In-tilmanocept. *EJNMMI Res* 2017;7:40
90. Vogel A, Kasper S, Bitzer M, Block A, Sinn M, Schulze-Bergkamen H, Moehler M, Pfarr N, Endris V, Goeppert B, Merx K, Schnoy E, Siveke JT, Michl P, Waldschmidt D, Kuhlmann J, Geissler M, Kahl C, Evenkamp R, Schmidt T, Kuhlmann A, **Weichert W**, Kubicka S. PICCA study: panitumumab in combination with cisplatin/gemcitabine chemotherapy in KRAS wild-type patients with biliary cancer-a randomised biomarker-driven clinical phase II AIO study. *Eur J Cancer* 2018;92:11-9
91. Weber J, de la Rosa J, Grove CS, Schick M, Rad L, Baranov O, Strong A, Pfaus A, Friedrich MJ, Engleitner T, Lersch R, Ollinger R, Grau M, Menendez IG, Martella M, Kohlhofer U, Banerjee R, Turchaninova MA, Scherger A, Hoffman GJ, Hess J, Kuhn LB, Ammon T, Kim J, Schneider G, Unger K, Zimmer-Strobl U, Heikenwalder M, Schmidt-Supprian M, Yang F, Saur D, Liu P, **Steiger K**, Chudakov DM, Lenz G, Quintanilla-Martinez L, Keller U, Vassiliou GS, Cadinanos J, Bradley A, Rad R. PiggyBac transposon tools for recessive screening identify B-cell lymphoma drivers in mice. *Nat Commun* 2019;10:1415
92. Weber J, Ollinger R, Friedrich M, Ehmer U, Barenboim M, **Steiger K**, Heid I, Mueller S, Maresch R, Engleitner T, Gross N, Geumann U, Fu B, Segler A, Yuan D, Lange S, Strong A, de la Rosa J, Esposito I, Liu P, Cadinanos J, Vassiliou GS, Schmid RM, Schneider G, Unger K, Yang F, Braren R, Heikenwalder M, Varela I, Saur D, Bradley A, Rad R. CRISPR/Cas9 somatic multiplex-mutagenesis for high-throughput functional cancer genomics in mice. *Proc Natl Acad Sci U S A* 2015;112:13982-7
93. **Weichert W**, Sprick MR, Siveke JT. Still a hopeless case for personalized oncology? Pancreatic cancer revisited. *Oncoscience* 2019;6:285-6
94. Wiethaler M, Slotta-Huspenina J, Brandtner A, Horstmann J, Wein F, Baumeister T, Radani N, Gerland S, Anand A, Lange S, Schmidt M, Janssen KP, Conrad A, Johannes W, Strauch K, Quante AS, Linkohr B, Kuhn KA, Blaser R, Lehmann A, Kohlmayer F, **Weichert W**, Schmid RM, Becker KF, Quante M. BarrettNET-a prospective registry for risk estimation of patients with Barrett's esophagus to progress to adenocarcinoma. *Dis Esophagus* 2019;32
95. Yusufi N, Mall S, Bianchi HO, **Steiger K**, Reder S, Klar R, Audehm S, Mustafa M, Nekolla S, Peschel C, Schwaiger M, Krackhardt AM, D'Alessandria C. In-depth Characterization of a TCR-specific Tracer for Sensitive Detection of Tumor-directed Transgenic T Cells by Immuno-PET. *Theranostics* 2017;7:2402-16