



## Forschungsbudget 2020 – «One Health» Krebsforschung

Amini P, Nassiri S, Malbon A, Markkanen E, Differential stromal reprogramming in benign and malignant naturally occurring canine mammary tumours identifies disease-promoting stromal components. *Scientific Reports* 2020. doi: 10.1038/s41598-020-62354-8

Ashok Y, Miettinen M, Oliveira DKH, Tamirat MZ, Näreoja K, Tiwari A, Hottiger MO, Johnson MS, Lehtiö L, Pulliainen AT. Discovery of Compounds Inhibiting the ADP-Ribosyltransferase Activity of Pertussis Toxin. *ACS Infect Dis.* (2020);6(4):588-602

Berti M, Teloni F, Mijic S, Ursich S, Fuchs J, Palumbieri MD, Krietsch J, Schmid JA, Garcin EB, Gon S, Modesti M, Altmeyer M, Lopes M. Sequential role of RAD51 paralog complexes in replication fork remodeling and restart *Nat Commun.* (2020);11(1):3531

Bicker, Anne; Nauth, Theresa; Gerst, Daniela; Aboouf, Mostafa Ahmed; Fandrey, Joachim; Kristiansen, Glen; Gorr, Thomas A; Hankeln, Thomas (2020). The role of myoglobin in epithelial cancers: Insights from transcriptomics. *International journal of molecular medicine*, 45(2):385-400

Clementi E, Inglin L, Beebe E, Gsell C, Garajova Z, Markkanen E, Persistent DNA damage triggers activation of the integrated stress response to promote cell survival under nutrient restriction. *BMC Biology* 2020. doi: 10.1186/s12915-020-00771-x

Use of Contrast-Enhanced Ultrasonography for the Characterization of Tumor Thrombi in Seven Dogs

Authors: Cordella A, Pey P, Linta N, Quinci M, Baron Toaldo M, Pisoni L, Bettini G, Diana A. *Animals (Basel)*. 2020 Sep 10;10(9):1613  
PMID: 32927883 DOI: 10.3390/ani10091613

Cueni C, Nytko KJ, Thumser-Henner P, Weyland MS, Rohrer Bley C. Methadone does not potentiate the effect of doxorubicin in canine tumour cell lines. *Vet Med Sci.* 2020 Aug;6(3):283-289. doi: 10.1002/vms3.266. Epub 2020 Apr 19

Dalcher D., Tan J.Y., Bersaglieri C., Peña-Hernández R., Vollenweider E., Zeyen S., Schmid MW., Bianchi V., Butz S., Roganowicz M., Kuzyakiv R., Baubec T., Marques AC., Santoro R. BAZ2A safeguards genome architecture of ground-state pluripotent stem cells



EMBO J (2020) 39:e105606

Dornbusch JA, Selmic LE, Huang PC, Samuelson JP, Cocca C, Wavreille VA, Boppart SA. (2020) Optical coherence tomography imaging of excised canine apocrine gland anal sac adenocarcinoma tumours. *Vet Comp Oncol*. doi: 10.1111/vco.12633

Dornbusch JA, Cocca C, Jennings R, Samuelson J, Vieson M, Huang PC, Boppart SA, Wavreille VA, Selmic LE. (2020) The feasibility and utility of optical coherence tomography directed histopathology for surgical margin assessment of canine mast cell tumours. *Vet Comp Oncol*. doi: 10.1111/vco.12654

Fabelo C, Selmic LE, Huang PC, Samuelson JP, Reagan JK, Kalamaras A, Wavreille V, Monroy GL, Marjanovic M, Boppart SA. (2020) Evaluating optical coherence tomography for surgical margin assessment of canine mammary tumours. *Vet Comp Oncol* doi: 10.1111/vco.12632

Frohns F, Frohns A, Kramer J, Meurer K, Rohrer-Bley C, Solovei I, Hicks D, Layer PG, Löbrich M. Differences in the Response to DNA Double-Strand Breaks between Rod Photoreceptors of Rodents, Pigs, and Humans. *Cells*. 2020 Apr 12;9(4):947. doi: 10.3390/cells9040947

Gatti M, Imhof R, Huang Q, Baudis M, Altmeyer M. The Ubiquitin Ligase TRIP12 Limits PARP1 Trapping and Constrains PARP Inhibitor Efficiency *Cell Rep*. (2020);32(5):107985

Glaus Garzon JF, Pastrello C, Jurisica I, Hottiger MO, Wenger RH, Borsig L. Tumor cell endogenous HIF-1 $\alpha$  activity induces aberrant angiogenesis and interacts with TRAF6 pathway required for colorectal cancer development. *Neoplasia*. (2020) ;22(12):745-758

Glaus Garzon JF, Pastrello C, Jurisica I, Hottiger MO, Wenger RH, Borsig L. Tumor cell endogenous HIF-1 $\alpha$  activity induces aberrant angiogenesis and interacts with TRAF6 pathway required for colorectal cancer development. *Neoplasia*. (2020);22(12):745-758

Gsell C, Richly H, Coin F, Naegeli H, A chromatin scaffold for DNA damage recognition: how histone methyltransferases prime nucleosomes for repair of ultraviolet light-induced lesions. *Nucleic Acids Research* 2020. doi: 10.1093/nar/gkz1229



Guscetti F, Nassiri S, Beebe E, Rito Brandao I, Graf R, Markkanen E, Molecular homology between canine spontaneous oral squamous cell carcinomas and human head-and-neck squamous cell carcinomas reveals disease drivers and therapeutic vulnerabilities. *Neoplasia* 2020. doi: 10.1016/j.neo.2020.10.003

Guzik, Patrycja; Benešová, Martina; Ratz, Magdalena; Monné Rodríguez, Josep M; Deberle, Luisa M; Schibli, Roger; Müller, Cristina (2020). Preclinical evaluation of 5-methyltetrahydrofolate-based radioconjugates—new perspectives for folate receptor–targeted radionuclide therapy. *European Journal of Nuclear Medicine and Molecular Imaging*. 2020 Oct 15. doi: 10.1007/s00259-020-04980-y

Lezaja A, Altmeyer M.

Dealing with DNA lesions: When one cell cycle is not enough.

*Curr Opin Cell Biol.* (2020);70:27-36

Marconato L, Sabbatini S, Buchholz J, Polton G, Finotello R, Martano M, Willman M, Massari F, Agnoli C, Gedon J, Cancedda S, Campigli M, Rohrer Bley C.

Outcome comparison between radiation therapy and surgery as primary treatment for dogs with periarticular histiocytic sarcoma: An Italian Society of Veterinary Oncology study.

*Vet Comp Oncol.* 2020 Dec;18(4):778-786. doi: 10.1111/vco.12609. Epub 2020 Jun 1

Marconato L, Rohrer Bley C, Leone VF, Finotello R.

An open-label dose escalation study evaluating tolerability and safety of a single 5-days course of temozolomide in dogs with advanced cancer.

*Vet Comp Oncol.* 2020 Dec;18(4):838-842. doi: 10.1111/vco.12623. Epub 2020 Jul 5

Millul, Jacobo; Krudewig, Christiane; Zana, Aureliano; Dakhel Plaza, Sheila; Puca, Emanuele; Cillam, Alessandra; Neri, Dario; Cazzamalli, Samuele (2020). Immunotherapy with immunocytokines and PD-1 blockade enhances the anticancer activity of Small Molecule-Drug Conjugates targeting Carbonic Anhydrase IX. *Mol Cancer Ther.* 2020 Dec 22;molcanther.0361.2020. doi: 10.1158/1535-7163.MCT-20-0361

Nytko KJ, Thumser-Henner P, Russo G, Weyland MS, Rohrer Bley C.

Role of HSP70 in response to (thermo)radiotherapy: analysis of gene expression in canine osteosarcoma cells by RNA-seq.

*Sci Rep.* 2020 Jul 29;10(1):12779. doi: 10.1038/s41598-020-69619-2

Ostfeld N, Tahas SA, Hatt J-M, Hilbe M (2020) Primary ganglioneuroblastoma in a red deer (*Cervus elaphus*). *Veterinary Record Case Reports* 8: e001078



Pietrzak K., Kuzyakiv R., Simon R., Bolis M., Bär D., Aprigliano R., Theurillat JP., Sauter G., Santoro R.

TIP5 primes prostate luminal cells for the oncogenic transformation mediated by PTEN-loss  
Proc Natl Acad Sci USA (2020) 117, 3637-364

Puca, Emanuele; De Luca, Roberto; Seehusen, Frauke; Rodriguez, Josep Maria Monné; Neri, Dario (2020). Comparative evaluation of bolus and fractionated administration modalities for two antibody-cytokine fusions in immunocompetent tumor-bearing mice. *Journal of Controlled Release*, 317:282-290

Puca, Emanuele; Probst, Philipp; Stringhini, Marco; Murer, Patrizia; Pellegrini, Giovanni; Cazzamalli, Samuele; Hutmacher, Cornelia; Gouyou, Baptiste; Wulhfard, Sarah; Matasci, Mattia; Villa, Alessandra; Neri, Dario (2020). The antibody-based delivery of interleukin-12 to solid tumors boosts NK and CD8+T cell activity and synergizes with immune checkpoint inhibitors. *International Journal of Cancer*, 146(9):2518-2530

Rother MB, Pellegrino S, Smith R, Gatti M, Meisenberg C, Wiegant WW, Luijsterburg MS, Imhof R, Downs JA, Vertegaal ACO, Huet S, Altmeyer M, van Attikum H.  
CHD7 and 53BP1 regulate distinct pathways for the re-ligation of DNA double-strand breaks.  
*Nat Commun.* (2020);11(1):5775

Salyer SA, Wavreille VA, Fenger JM, Jennings RN, Selmic LE. Evaluation of microwave ablation for local treatment of dogs with distal radial osteosarcoma: A pilot study. (2020)*Vet Surg.* 49(7):1396-1405. doi: 10.1111/vsu.13491

Stiborova K, Meier VS, Takada M, Turek M, Poirier VJ, Laliberte S, Rohrer Bley C.  
Definitive-intent radiotherapy for sinonasal carcinoma in cats: A multicenter retrospective assessment.  
*Vet Comp Oncol.* 2020 Dec;18(4):626-633. doi: 10.1111/vco.12583. Epub 2020 Mar 22

Terraneo, Nastassja; Jacob, Francis; Peitzsch, Claudia; Dubrovskaja, Anna; Krudewig, Christiane; Huang, Yen-Lin; Heinzlmann-Schwarz, Viola; Schibli, Roger; Béhé, Martin; Grünberg, Jürgen (2020). L1 Cell adhesion molecule confers radioresistance to ovarian cancer and defines a new cancer stem cell population. *Cancers*, 12(1):E217

Thumser-Henner P, Nytko KJ, Rohrer Bley C.  
Mutations of BRCA2 in canine mammary tumors and their targeting potential in clinical therapy.



BMC Vet Res. 2020 Jan 31;16(1):30. doi: 10.1186/s12917-020-2247-4. PMID: 32005245 Free PMC article. Review

Van Asselt N, Christensen N, Meier V, Rohrer Bley C, Laliberte S, Poirier VJ, Desai N, Chen Y, Turek M.

Definitive-intent intensity-modulated radiation therapy provides similar outcomes to those previously published for definitive-intent three-dimensional conformal radiation therapy in dogs with primary brain tumors: A multi-institutional retrospective study.

Vet Radiol Ultrasound. 2020 Jul;61(4):481-489. doi: 10.1111/vru.12868. Epub 2020 May 1

Walser F, Mulder MPC, Bragantini B, Burger S, Gubser T, Gatti M, Botuyan MV, Villa A, Altmeyer M, Neri D, Ovaa H, Mer G, Penengo L.

Ubiquitin Phosphorylation at Thr12 Modulates the DNA Damage Response.

Mol Cell. (2020);80(3):423-436.e9

Wolf F, Meier VS, Pot SA, Rohrer Bley C.

Ocular and periocular radiation toxicity in dogs treated for sinonasal tumors: A critical review.

Vet Ophthalmol. 2020 Jul;23(4):596-610. doi: 10.1111/vop.12761. Epub 2020 Apr. Review

23.02.2021