

Oncology

de Oliveira Freitas Machado C, Schafrank M, Brüggemann M, et al., and Müller-McNicoll M (2023). Poison cassette exon splicing of SRSF6 regulates nuclear speckle dispersal and the response to hypoxia. *Nucleic Acids Res.* 2023 Jan 25;51(2):870-890

Wajdman AMB., Machnik G., Linnebacher M., Linnebacher C., and Obuchowicz E. (2023). Cancer-related protein profile of patient-derived and commercial glioblastoma cell lines exposed to Temozolomide. *Research Square* 10.21203/rs.3.rs-2782714/v1.

Haupt V, Gündel D, Prell E, Kahnt M, Sommerwerk S, Riemann A, Paschke R, Csuk R, Odparlik A, and Thews O. Evaluation of Betulinic Acid Derivatives as PET Tracers for Hypoxia-Induced Carbonic Anhydrase IX (CA IX) Expression. *Adv Exp Med Biol.* 2022;1395: 275-280

Aiyappa-Maudsley R, Elsaalem L, Ibrahim AIM, Pors K, and Martin SG (2022). In vitro radiosensitization of breast cancer with hypoxia-activated prodrugs. *J Cell Mol Med.* 2022 Aug;26(16):4577-4590

Cooper CR, Jones D, Jones GD, Petersson K (2022). FLASH irradiation induces lower levels of DNA damage ex vivo, an effect modulated by oxygen tension, dose, and dose rate. *Br J Radiol.* 2022 May 1;95(1133):20211150. doi: 10.1259/bjr.20211150. Epub 2022 Feb 16. PMID: 35171701

Malier M, Gharzeddine K, Laverriere MH, Marsili S, Thomas F, Court M, Decaens T, Roth G, Millet A (2022). Correction: Hypoxia drives dihydropyrimidine dehydrogenase expression in macrophages and confers chemoresistance in colorectal cancer. *Cancer Res.* 2022 Apr 1;82(7):1436

Rauschner M, Lange L, Hüsing T, Reime S, Nolze A, Maschek M, Thews O, and Riemann A (2021). Impact of the acidic environment on gene expression and functional parameters of tumors *in vitro* and *in vivo*. *J Exp Clin Cancer Res.* 2021 Jan 6;40(1):10

Maury P, Porcel E, Mau A, Lux F, Tillement O, Mahou P, Schanne-Klein MC, and Lacombe S (2021). Rapid evaluation of novel therapeutic strategies using a 3D collagen-based tissue-like model. *Front Bioeng Biotechnol.* 2021 Feb 16;9: 574035

Riemann A, Reime S, Thews O (2019). Acidic extracellular environment affects miRNA expression in tumors *in vitro* and *in vivo*. *Int J Cancer.* 2019 Apr 1;144(7):1609-1618

Mahalingam SM, Chu H, Liu X, Leamon CP, and Low PS (2018). Carbonic Anhydrase IX-Targeted Near-Infrared Dye for Fluorescence Imaging of Hypoxic Tumors. *Bioconjugate Chem.* 2018, 29, 10, 3320-3331

Riemann A, Güttler A, Haupt V, Wichmann H, Reime S, Bache M, Vordermark D, and Thews O (2018). Inhibition of carbonic anhydrase IX by ureidosulfonamide inhibitor U104 reduces prostate cancer cell growth but does not modulate daunorubicin or cisplatin cytotoxicity. *Oncol Res.* 2018 Mar 5;26(2):191-200

Riemann A, Reime S, Thews O (2017). Tumor acidosis and hypoxia differently modulate the inflammatory program: measurements *in vitro* and *in vivo*. *Neoplasia.* 2017 Dec;19(12):1033-1042

Immunology

Courvan, EMC and Parker, RR (2023). Post-transcriptional control contributes to hypoxia-induced tumorigenic phenotypes in macrophages. *bioRxiv*, 2023, S. 2023.10.09.561558.

Robb KP, Audet J, Gandhi R and Viswanathan S (2022). Putative critical quality attribute matrix identifies mesenchymal stromal cells with potent immunomodulatory and angiogenic "fitness" ranges in response to culture process parameters. *Front. Immunol.*, Nov 2022

Mallet C, Cochard J, Leclercq S, Trapp-Fragnet L, Chouteau P, and Denesvre C (2022). Hypoxia and HIF-1 Trigger Marek's Disease Virus Reactivation in Lymphoma-Derived Latently Infected T Lymphocytes. *J Virol.* 2022 Mar 9;96(5): e0142721

Cochard J, Bull-Maurer A, Tauber C, Burlaud-Gaillard J, Mazurier F, Meunier JC, Roingard P, and Chouteau P (2021). Differentiated Cells in Prolonged Hypoxia Produce Highly Infectious Native-Like Hepatitis C Virus Particles. *Hepatology.* 2021 Aug;74(2):627-640

Court M, Malier M, and Millet A (2019). Proteomic Analysis of Human Macrophage Polarization Under a Low Oxygen Environment. *J Vis Exp.* 2019 Jan 7;(143)

Kulkarni A, Mateus M, Thinnes CC, McCullagh JS, Schofield CJ, Taylor GP, and Bangham CRM (2017). Glucose Metabolism and Oxygen Availability Govern Reactivation of the Latent Human Retrovirus HTLV-1. *Cell Chem Biol.* 2017 Nov 16;24(11):1377-1387.e3

Other (mammalian)

Berg M, Eleftheriadou D, Phillips JB, and Shipley RJ (2023). Mathematical modelling with Bayesian inference to quantitatively characterize therapeutic cell behaviour in nerve tissue engineering. *J R Soc Interface.* 2023 Sep;20(206):20230258

Roennfeldt AE, Allen TP, Trowbridge BN, Beard MR, Whitelaw ML, Russell DL, Bersten DC, and Peet DJ (2023). NanoFIRE: A NanoLuciferase and Fluorescent Integrated Reporter Element for Robust and Sensitive Investigation of HIF and Other Signalling Pathways. *Biomolecules.* 2023 Oct 19;13(10):1545

Eisenbeis VB, Qiu D, Gorka O, et al., and Jessen HJ (2023). β -lapachone regulates mammalian inositol pyrophosphate levels in an NQO1- and oxygen-dependent manner. *Proc Natl Acad Sci U S A.* 2023 Aug 22;120(34): e2306868120

Smith PO, Trueman R, Powell R, Gregory H, Phillips J, Bohnhorst P, and Rayner M (2023). Exploring the Effect of Vitamins B1, B6 and B12 on Neurite Regeneration using a 3D Co-Culture Model of Neurodegeneration. *International Journal of Physical Medicine and Rehabilitation* 10.35248/2329-9096.23.11.667

Michno, Wojciech M., et al. (2023). Adrenomedullin promotes interneuron migration in a dual human model for hypoxic interneuronopathy of prematurity. *bioRxiv* (2023): 2023-05

Mohamed H, Ghith A, and Bell SG (2023). The binding of nitrogen-donor ligands to the ferric and ferrous forms of cytochrome P450 enzymes. *J Inorg Biochem.* 2023 May;242: 112168

Tregub P, Malinovskaya N, Hilazheva E, Morgun A, and Kulikov V (2022). Permissive hypercapnia and hypercapnic hypoxia inhibit signaling pathways of neuronal apoptosis in ischemic/hypoxic rats. *Mol Biol Rep.* 2022 Dec 28

Tregub PP, Malinovskaya NA, Osipova ED, Morgun AV, Kulikov VP, and Kuzovkov DA (2022). Hypercapnia Modulates the activity of adenosine A1 receptors and mitoK+ATP channels in rat brain when exposed to intermittent hypoxia. *Neuromolecular Med.* 2022 Jun;24(2):155-168

Eleftheriadou D, Berg M, Phillips JB, and Shipley RJ (2022). A combined experimental and computational framework to evaluate the behavior of therapeutic cells for peripheral nerve regeneration. *Biotechnol Bioeng.* 2022 Jul;119(7):1980-1996

Scrivner O, Ismael A, Kumar MR, Sorokolet K, Koutakis P, and Farmer PJ (2021). Expanding the reactive sulfur metabolome: intracellular and efflux measurements of small oxoacids of sulfur (SOS) and H2S in human primary vascular cell culture. *Molecules.* 2021 Nov 26;26(23):7160

Lu B, Zhu Z, Sheng L, Li Y, Yang Y, Chen Y, Xue D, Zhou Y, Cai W, Chen C, Wei C, Xu D, Yan M, Lin S, Yan G, Yin W (2020). SMARCB1 Promotes ubiquitination and degradation of NR4A3 via direct interaction driven by ROS in vascular endothelial cell injury. *Oxid Med Cell Longev.* 2020 Oct 23;2020: 2048210

Kozlov AM, Lone A, Betts DH, Cumming RC (2020). Lactate preconditioning promotes a HIF-1 α -mediated metabolic shift from OXPHOS to glycolysis in normal human diploid fibroblasts. *Sci Rep.* 2020 May 20;10(1):8388

Tregub PP, Malinovskaya NA, Morgun AV, Osipova ED, Kulikov VP, Kuzovkov DA, Kovzelev PD (2020). Hypercapnia potentiates HIF-1 α activation in the brain of rats exposed to intermittent hypoxia. *Respir Physiol Neurobiol.* 2020 Jul;278: 103442

Lu B, Zhu Z, Sheng L, et al., and Yin W (2020). SMARCB1 Promotes Ubiquitination and Degradation of NR4A3 via Direct Interaction Driven by ROS in Vascular Endothelial Cell Injury. *Oxid Med Cell Longev.* 2020 Oct 23;2020: 2048210

Leduc-Galindo D, Qvist P, Tóth AE, Fryland T, Nielsen MS, Børghlum AD, and Christensen JH (2019). The effect of hypoxia on ZEB1 expression in a mimetic system of the blood-brain barrier. *Microvasc Res.* 2019 Mar: 122:131-135

Plant research

Arasimowicz-Jelonek, M., Floryszak-Wieczorek, J., Suarez, S. et al. (2022). Discovery of endogenous nitroxyl as a new redox player in *Arabidopsis thaliana*. *Nature Plants* 9, 36 – 44