

Oncology

Dela R, Lemos Da Silva L, et al., and Adrian G (2025). Not all tumors are alike: Varying efficacy of FLASH across tumor types and oxygenation status in spheroid models. *Br J Radiol*

Gómez-Pastor S, Maugard A, Walker HR, Elies J, Børsum KE, Grimaldi G, Reina G, Ruiz A (2025). CD-44 targeted nanoparticles for combination therapy in an in vitro model of triple-negative breast cancer: Targeting the tumour inside out. *Colloids Surf B Biointerfaces*

Bielecka-Wajdman AM, Machnik G, Linnebacher C, Linnebacher M, Stec-Grosman K, Obuchowicz E. A Dot-Blot Screening for Identifying the Temozolomide-Regulated Proteins as Potential Targets for Glioma Multi-OMICS Studies. *Front Biosci*

Kyle AH, Karan T, Baker JHE, et al., and Püspöky Banáth J, Wang T, Liu A, Mendez C, Peter Petric M, Duzenli C, Minchinton AI (2024). Detection of FLASH-radiotherapy tissue sparing in a 3D-spheroid model using DNA damage response markers. *Radiother Oncol*

Portier L, Daira P, Fourmaux B, et al., Favaudon V (2024). Differential Remodeling of the Oxylipin Pool After FLASH Versus Conventional Dose-Rate Irradiation *In Vitro* and *In Vivo*. *Int J Radiat Oncol Biol Phys*

Gharzeddine, K., Gonzales Pietro, C., Malier, M., et al., Millet, A. (2024). Metabolic reprogramming of hypoxic tumour-associated macrophages through CSF-1R targeting favours treatment efficiency in colorectal cancers. *Biorxiv*

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

Wajdman, A. M. B., Machnik, G., Linnebacher, M., Linnebacher, C., & Obuchowicz, E. (2023). Cancer-related protein profile of patient-derived and commercial glioblastoma cell lines exposed to Temozolomide. *Research Square*

Haupt V, Gündel D, Prell E, et al., A, Thews O (2022). Evaluation of Betulinic Acid Derivatives as PET Tracers for Hypoxia-Induced Carbonic Anhydrase IX (CA IX) Expression. *Adv Exp Med Biol*

Aiyappa-Maudsley R, Elsalem L, Ibrahim AIM, Pors K, Martin SG (2022). *In vitro* radiosensitization of breast cancer with hypoxia-activated prodrugs. *J Cell Mol Med*

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*

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*

Rauschner M, Lange L, Hüsing T, Reime S, Nolze A, Maschek M, Thews O, 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*

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

Riemann A, Reime S, Thews O (2019). Acidic extracellular environment affects miRNA expression in tumors *in vitro* and *in vivo*. *Int J Cancer*

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*

Riemann A, Güttler A, Haupt V, Wichmann H, Reime S, Bache M, Vordermark D, 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*

Riemann A, Reime S, Thews O (2017). Tumor acidosis and hypoxia differently modulate the inflammatory program: measurements in vitro and in vivo. *Neoplasia*

Immunology

Alicea Pauneto CDM, Riesenberger BP, et al., and Thaxton JE (2025). Intra-tumoral hypoxia promotes CD8⁺ T cell dysfunction via chronic activation of integrated stress response transcription factor ATF4. *Immunity*

Couteaudier M, Nivard M, Cochard J, Mammano F, Roingeard P, de Rocquigny H, Chouteau P (2025). Hypoxia-inducible factor 2 triggers the production of highly infectious native-like hepatitis C virus particles. *Cell Mol Life Sci*

Courvan EMC, Parker RR (2024). Hypoxia and inflammation induce synergistic transcriptome turnover in macrophages. *Cell Rep*

Hunt EG, Hurst KE, Riesenberger BP, et al., Thaxton JE (2024). Acetyl-CoA carboxylase obstructs CD8⁺ T cell lipid utilization in the tumor microenvironment. *Cell Metab*

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

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*

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

Cochard J, Bull-Maurer A, Tauber C, Burlaud-Gaillard J, Mazurier F, Meunier JC, Roingeard P, Chouteau P (2021). Differentiated Cells in Prolonged Hypoxia Produce Highly Infectious Native-Like Hepatitis C Virus Particles. *Hepatology*

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

Kulkarni A, Mateus M, Thinnies CC, McCullagh JS, Schofield CJ, Taylor GP, Bangham CRM (2017). Glucose Metabolism and Oxygen Availability Govern Reactivation of the Latent Human Retrovirus HTLV-1. *Cell Chem Biol*

Other (mammalian)

Hahn, M. B., Aminzadeh-Gohari, et al, and Villani, D. (2025). Sparing of DNA irradiated with Ultra-High Dose-Rates under Physiological Oxygen and Salt conditions. *arXiv*

Chen C, Zhou Y, et al., and Yin W (2025). Glycolytic Enzyme HK2 Phosphorylates nSMase1 to Promote Astrocytic Exosomes Biogenesis Contributing to Acute Ischemic Stroke Injury. *Adv Sci*

Allen TP, Roennfeldt AE, et al., and Bersten DC (2025). dFLASH; dual Fluorescent transcription factor activity sensor for histone integrated live-cell reporting and high-content screening. *Nat Commun*

Puno A, Michno WP, et al., and Pasca AM (2025). Adrenomedullin restores the human cortical interneurons migration defects induced by hypoxia. *eLife*

Okuda EK, Kessler LF, et al., and Müller-McNicoll M (2025). Rapid depletion and super-resolution microscopy reveal dual roles of SRSF5 in coordinating nuclear speckle-paraspeckle crosstalk during cellular stress. *Nucleic Acids Res*

Ashraf A, Zechmann B, Bruce ED (2025). Hypoxia-inducible factor 1α modulates acrolein-induced cellular damage in bronchial epithelial cells. *eLife*

Winek E, Wolińska-Nizioł L, et al., and Suwińska A (2025). Zygotic activin A is dispensable for the mouse preimplantation embryo development and for the derivation and pluripotency of embryonic stem cells. *Biol Reprod*

Mohib MM, Rabe S, Nolze A, Rooney M, Ain Q, Zipprich A, Gekle M, and Schreiber B (2025). Eplerenone, a mineralocorticoid receptor inhibitor, reduces cirrhosis associated changes of hepatocyte glucose and lipid metabolism. *Cell Commun Signal*

Li L, Choi JB, et al., and Pasca AM (2025). Hypoxia disrupts circadian rhythms in astrocytes and causes synapse engulfment defects. *bioRxiv*

Ye X, Liu Y, Chen C, Sun Y, Li F, Fu Y, Luo J, Su L, Chi W (2024). A novel function and mechanism of ischemia-induced retinal astrocyte-derived exosomes for RGC apoptosis of ischemic retinopathy. *Mol Ther Nucleic Acids*

Arnold, B., Kessler, L., Okuda, et al., and Mueller-McNicoll, M. (2024). Rapid depletion and super-resolution microscopy reveal an unexpected role of the nuclear-speckle protein SRSF5 in paraspeckle assembly and dynamics during cellular stress. *bioRxiv*

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

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

Eisenbeis VB, Qiu D, Gorka O, et al., Jessen HJ (2023). β-lapachone regulates mammalian inositol pyrophosphate levels in an NQO1- and oxygen-dependent manner. *Proc Natl Acad Sci USA*

Smith, Poppy O; Trueman, Ryan; Powell, Rebecca; Gregory, Holly; Phillips, James; Bohnhorst, Patrizia; Rayner, Melissa; (2023) Exploring the Effect of Vitamins B1, B6 and B12 on Neurite Regeneration using a 3D Co-Culture Model of Neurodegeneration. *Int J Phys Med Rehabil*

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

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

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

Tregub PP, Malinovskaya NA, Osipova ED, Morgun AV, Kulikov VP, 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*

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

Scrivner O, Ismaeel A, Kumar MR, Sorokole K, Koutakis P, 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*

Lu B, Zhu Z, Sheng L, et al., 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*

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

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

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

Other (non-mammalian)

Martínez-RedondoGI, Eleftheriadi K, et al., and Fernández A (2025). Independent genomic trajectories shape adaptation to life on land across animal lineages. [bioRxiv](#)

Vargas-Chávez C, Benítez-Álvarez L, et al., and Fernández R (2025). An episodic burst of massive genomic rearrangements and the origin of non-marine annelids. [Nat Ecol Evol](#)

Benítez-Álvarez L, García-Vernet R, et al., and Fernández R (2025). Genomic exaptation and regulatory landscape shifts as key mechanisms enabling flatworm terrestrialization. [bioRxiv](#)

Fernandez R, Vargas-Chavez C, Benitez-Alvarez L, et al. (2024). A punctuated burst of massive genomic rearrangements by chromosome shattering and the origin of non-marine annelids [Research Square](#)

Plant research

Arasimowicz-Jelonek, M., Floryszak-Wieczorek, J., Suarez, S. et al., and & Żywicki M (2022). Discovery of endogenous nitroxyl as a new redox player in *Arabidopsis thaliana*. [Nat Plants](#)

Reviews

Rogers ZJ, Flood D, Bencherif SA, and Taylor CT (2025). Oxygen control in cell culture - Your cells may not be experiencing what you think! [Free Radic Biol Med](#)