

List of Publications 2024 - 1990

Prof. Dr. Jörg Huwyler

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Peer-reviewed original research articles

- (1) Batista JVC, Melo MN de O, Holandino C, Maier J, Huwyler J, Baumgartner S, Boylan F. *Characterization of Larix decidua Mill. (Pinaceae) oleoresin's essential oils composition using GC-MS*. *Frontiers in Plant Science* [Internet]. **2024** [cited **2024**]. 14. Available from: <https://www.frontiersin.org/articles/10.3389/fpls.2023.1331894>
- (2) Waldner S, Wendelspiess E, Detampel P, Schlepütz CM, Huwyler J, Puchkov M. *Advanced analysis of disintegrating pharmaceutical compacts using deep learning-based segmentation of time-resolved micro-tomography images*. *Heliyon*. **2024**. 10:e26025.
- (3) Wozniewski M, Besheer A, Huwyler J, Mahler H-C, Sediq AS, Levet V. *Impact of the Design of Different Infusion Containers on the Dosing Accuracy of a Therapeutic Drug Product*. *Journal of Pharmaceutical Sciences*. **2024**. 113:990–8.
- (4) Alter CL, Detampel P, Schefer RB, Lotter C, Hauswirth P, Puligilla RD, Weibel VJ, Schenk SH, Heusermann W, Schürz M, Meisner-Kober N, Palivan C, Einfalt T, Huwyler J. *High efficiency preparation of monodisperse plasma membrane derived extracellular vesicles for therapeutic applications*. *Commun Biol*. **2023**. 6:1–17.
- (5) Bolten JS, Mancuso RV, Roos NJ, Mayr A, Puligilla RD, Kraus L, Odermatt A, Fricker G, Huwyler J. *Nephrotoxicity of iopamidol is associated with mitochondrial impairment in human cell and teleost models*. *Toxicology and Applied Pharmacology*. **2023**. 466:116493.
- (6) Bolten JS, Tanner C, Rodgers G, Schulz G, Levano S, Weitkamp T, Waldner S, Puligilla RD, Bodmer D, Müller B, Huwyler J. *Zebrafish (Danio rerio) larvae as a predictive model to study gentamicin-induced structural alterations of the kidney*. *PLOS ONE*. **2023**. 18:e0284562.
- (7) Casper J, Nicolle L, Willimann M, Kuzucu EÜ, Tran A, Robin P, Detampel P, Grisch-Chan HM, Thöny B, Huwyler J, Gerber-Lemaire S. *Core-Shell Structured Chitosan-Polyethylenimine Nanoparticles for Gene Delivery: Improved Stability, Cellular Uptake, and Transfection Efficiency*. *Macromol Biosci*. **2023**. 23:e2200314.
- (8) Hauswirth P, Buck J, Puligilla R, Alter CL, Sieber S, Claudi B, Fanous J, Bumann D, Huwyler J. *Zebrafish Larvae as an in vivo Model for Antimicrobial Activity Tests against*

- Intracellular Salmonella*. FBL. **2023**. 28:99.
- (9) Hauswirth P, Graber P, Buczak K, Mancuso RV, Schenk SH, Nüesch JPF, Huwyler J. *Design and Characterization of Mutated Variants of the Oncotoxic Parvoviral Protein NS1*. Viruses. **2023**. 15:209.
- (10) Kost J, Huwyler J, Puchkov M. *Calcium Phosphate Microcapsules as Multifunctional Drug Delivery Devices*. Advanced Functional Materials. **2023**. n/a:2303333.
- (11) Kullmann D, Martinez CL, Lümekemann J, Huwyler J. *Part I: Significant reduction of lyophilization process times by using novel matrix based scaffolds*. European Journal of Pharmaceutics and Biopharmaceutics. **2023**. 184:248–61.
- (12) Kullmann D, Lema Martinez C, Lümekemann J, Huwyler J. *Part II: Matrix based scaffold lyophilization facilitates processing as a prerequisite for an innovative packaging system*. European Journal of Pharmaceutics and Biopharmaceutics. **2023**. 184:262–73.
- (13) Linares V, Casas M, Huwyler J, Caraballo I. *Stereolithographic 3D printing: Formulation design based on percolation thresholds*. Journal of Drug Delivery Science and Technology. **2023**. 90:105099.
- (14) Wolter A, Bucher CH, Kurmies S, Schreiner V, Konietzschke F, Hohlbaum K, Klopffleisch R, Löhning M, Thöne-Reineke C, Buttgereit F, Huwyler J, Jirkof P, Rapp AE, Lang A. *A buprenorphine depot formulation provides effective sustained post-surgical analgesia for 72 h in mouse femoral fracture models*. Sci Rep. **2023**. 13:3824.
- (15) Bolten JS, Pratsinis A, Alter CL, Fricker G, Huwyler J. *Zebrafish (Danio rerio) larva as an in vivo vertebrate model to study renal function*. American Journal of Physiology-Renal Physiology. **2022**. 322:F280–94.
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- (17) Jooss VM, Bolten JS, Huwyler J, Ahmed D. *In vivo acoustic manipulation of microparticles in zebrafish embryos*. Science Advances. **2022**. 8:eabm2785.
- (18) Lötscher J, Martí i Líndez A-A, Kirchhammer N, Cribioli E, Giordano G, Trefny MP, Lenz M, Rothschild SI, Strati P, Künzli M, Lotter C, Schenk SH, Dehio P, Löliger J, Litzler L, Schreiner D, Koch V, Page N, Lee D, Grählert J, Kuzmin D, Burgener A-V, Merkler D, Pless M, Balmer ML, Reith W, Huwyler J, Irving M, King CG, Zippelius A, Hess C. *Magnesium sensing via LFA-1 regulates CD8+ T cell effector function*. Cell [Internet]. **2022** [cited **2022**]. . Available from: <https://www.sciencedirect.com/science/article/pii/S0092867421015610>

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- (20) Migga A, Schulz G, Rodgers G, Osterwalder M, Tanner C, Blank H, Jerjen I, Salmon P, Twengström W, Scheel M, Weitkamp T, Schlepütz CM, Bolten JS, Huwyler J, Hotz G, Madduri S, Müller B. *Comparative hard x-ray tomography for virtual histology of zebrafish larva, human tooth cementum, and porcine nerve*. JMI. **2022**. 9:031507.
- (21) Oezen G, Schentarra E-M, Bolten JS, Huwyler J, Fricker G. *Sodium arsenite but not aluminum chloride stimulates ABC transporter activity in renal proximal tubules of killifish (Fundulus heteroclitus)*. Aquat Toxicol. **2022**. 252:106314.
- (22) Bachmann F, Duthaler U, Schwabedissen HEM zu, Puchkov M, Huwyler J, Haschke M, Krähenbühl S. *Metamizole is a Moderate Cytochrome P450 Inducer Via the Constitutive Androstane Receptor and a Weak Inhibitor of CYP1A2*. Clinical Pharmacology & Therapeutics. **2021**. 109:1505–16.
- (23) Nicolle L, Casper J, Willimann M, Journot CMA, Detampel P, Einfalt T, Grisch-Chan HM, Thöny B, Gerber-Lemaire S, Huwyler J. *Development of Covalent Chitosan-Polyethylenimine Derivatives as Gene Delivery Vehicle: Synthesis, Characterization, and Evaluation*. International Journal of Molecular Sciences. **2021**. 22:3828.
- (24) Pratsinis A, Uhl P, Bolten JS, Hauswirth P, Schenk SH, Urban S, Mier W, Witzigmann D, Huwyler J. *Virus-Derived Peptides for Hepatic Enzyme Delivery*. Mol Pharmaceutics. **2021**. 18:2004–14.
- (25) Preisig D, Varum F, Bravo R, Hartig C, Spleiss J, Abbes S, Caobelli F, Wild D, Puchkov M, Huwyler J, Haschke M. *Colonic delivery of metronidazole-loaded capsules for local treatment of bacterial infections: A clinical pharmacoscintigraphy study*. European Journal of Pharmaceutics and Biopharmaceutics. **2021**. 165:22–30.
- (26) Schittny A, Waldner S, Duthaler U, Vorobyev A, Abramovich R, Krähenbühl S, Puchkov M, Huwyler J. *Particle Forming Amorphous Solid Dispersions: A Mechanistic Randomized Pharmacokinetic Study in Humans*. Pharmaceutics. **2021**. 13:401.
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- (28) Schröter A, Koulov AV, Huwyler J, Mahler H-C, Jahn M. *4-Hydroxynonenal is An Oxidative Degradation Product of Polysorbate 80*. JPharmSci. **2021**. 110:2524–30.
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- (30) Schuster J, Mahler H-C, Joerg S, Huwyler J, Mathaes R. *Analytical Challenges Assessing Protein Aggregation and Fragmentation Under Physiologic Conditions*. Journal of Pharmaceutical Sciences. **2021**. 110:3103–10.
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- (33) Wagner-Hattler L, Kiene K, Bielicki J, Pfister M, Puchkov M, Huwyler J. *High Acceptability of an Orally Dispersible Tablet Formulation by Children*. Children. **2021**. 8:194.
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