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Research Articles

1. 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.
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. Waldner S, Huwyler J, Puchkov M. *A deep-learning-based workflow for reconstructing and segmenting challenging sets of time-resolved X-ray micro-computed tomography data*. SoftwareX. **2024**. 27:101796.
4. van Os WL, Wielaert L, Alter C, Davidović D, Šachl R, Kock T, González UU, Arias-Alpizar G, Vigario FL, Knol RA, Kuster R, Romeijn S, Mora NL, Detampel P, Hof M, Huwyler J, Kros A. *Lipid conjugate dissociation analysis improves the in vivo understanding of lipid-based nanomedicine*. Journal of Controlled Release. **2024**. 371:85–100.
5. Peláez SS, Mahler H-C, Huwyler J, Allmendinger A. *Optimization of Methodologies to Study Freeze/Thaw Processes in Drug Substance Bottles*. Methods and Protocols. **2024**. 7:68.
6. Oezen G, Kraus L, Schentarra E-M, Bolten JS, Huwyler J, Fricker G. *Aluminum and ABC transporter activity*. Environmental Toxicology and Pharmacology. **2024**. 108:104451.
7. Munk A, Philippi V, Buchecker V, Bankstahl M, Glasenapp A, Blutke A, Michelakaki E, Talbot SR, Huwyler J, Jirkof P, Kopaczka M, Merhof D, Palme R, Potschka H. *Refining pain management in mice by comparing multimodal analgesia and NSAID monotherapy for neurosurgical procedures*. Scientific Reports. **2024**. 14:18691.
8. Lotter C, Kuzucu EÜ, Casper J, Alter CL, Puligilla RD, Detampel P, Lopez JS, Ham AS, Huwyler J. *Comparison of ionizable lipids for lipid nanoparticle mediated DNA delivery*. European Journal of Pharmaceutical Sciences. **2024**. 203:106898.
9. Golhen K, Buettcher M, Huwyler J, van den Anker J, Gotta V, Dao K, Rothuizen LE, Kobylinski K, Pfister M. *Pharmacometrics to Evaluate Dosing of the Patient-Friendly Ivermectin CHILD-IVITAB in Children ≥ 15 kg and <15 kg*. Pharmaceutics. **2024**. 16:1186.
10. Dao K, Buettcher M, Golhen K, Kost J, Schittny A, Duthaler U, Atkinson A, Haefliger D, Guidi M, Bardinat C, Chtioui H, Boulekbache A, Buclin T, Huwyler J, Pfister M, Rothuizen LE. *Novel Patient-Friendly Orodispersible Formulation of Ivermectin is Associated With Enhanced Palatability, Controlled Absorption, and Less Variability: High Potential for Pediatric Use*. The Journal of Clinical Pharmacology. **2024**. 64:1295–303.
11. 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>
12. Alter CL, Lotter C, Puligilla RD, Bolten JS, Sedzicki J, Marchese J, Schittny V, Rucci F, Beverly M, Palivan CG, Detampel P, Einfalt T, Huwyler J. *Nano Plasma Membrane Vesicle-Lipid Nanoparticle Hybrids for Enhanced Gene Delivery and Expression*. Advanced Healthcare Materials. **2024**. n/a:2401888.
13. Wolter A, Bucher CH, Kurmies S, Schreiner V, Konietzschke F, Hohlbaum K, Klopffleisch R, Löhning M, Thöne-Reineke C, Buttgerit 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.

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14. 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.
15. 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.
16. 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.
17. Kost J, Huwyler J, Puchkov M. *Calcium Phosphate Microcapsules as Multifunctional Drug Delivery Devices*. Advanced Functional Materials. **2023**. 33:2303333.
18. 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.
19. 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*. Frontiers in Bioscience-Landmark. **2023**. 28:99.
20. Golhen K, Buettcher M, Kost J, Huwyler J, Pfister M. *Meeting Challenges of Pediatric Drug Delivery: The Potential of Orally Fast Disintegrating Tablets for Infants and Children*. Pharmaceutics. **2023**. 15:1033.
21. Farzan M, Roth R, Schoelkopf J, Huwyler J, Puchkov M. *The processes behind drug loading and release in porous drug delivery systems*. European Journal of Pharmaceutics and Biopharmaceutics. **2023**. 189:133–51.
22. Casper J, Schenk SH, Parhizkar E, Detampel P, Dehshahri A, Huwyler J. *Polyethylenimine (PEI) in gene therapy: Current status and clinical applications*. Journal of Controlled Release. **2023**. 362:667–91.
23. 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.
24. 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.
25. 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.
26. 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.
27. 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)*. Aquatic Toxicology. **2022**. 252:106314.
28. 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.

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29. Lotter C, Alter ClaudioLuca, Bolten JanStephan, Detampel Pascal, Palivan CorneliaG, Einfalt Tomaž, Huwyler Jörg. *Incorporation of phosphatidylserine improves efficiency of lipid based gene delivery systems*. European Journal of Pharmaceutics and Biopharmaceutics. **2022**. 172:134–43.
30. 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, Grähler 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. **2022**. 185:585–602.
31. Jooss VM, Bolten JS, Huwyler J, Ahmed D. *In vivo acoustic manipulation of microparticles in zebrafish embryos*. Science Advances. **2022**. 8:eabm2785.
32. 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.
33. Batista JVC, Uecker A, Holandino C, Boylan F, Maier J, Huwyler J, Baumgartner S. *A Scoping Review on the Therapeutic Potential of Resin From the Species Larix decidua Mill. [Pinaceae] to Treat Ulcerating Wounds*. Frontiers in Pharmacology [Internet]. **2022** [cited **2022**]. 13. Available from: <https://www.frontiersin.org/article/10.3389/fphar.2022.895838>
34. Witzigmann D, Grossen P, Quintavalle C, Lanzafame M, Schenk SH, Tran X-T, Englinger B, Hauswirth P, Grünig D, van Schoonhoven S, Krähenbühl S, Terracciano LM, Berger W, Piscuoglio S, Quagliata L, Rommelaere J, Nüesch JPF, Huwyler J. *Non-viral gene delivery of the oncotoxic protein NS1 for treatment of hepatocellular carcinoma*. Journal of Controlled Release. **2021**. 334:138–52.
35. 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.
36. Schuster J, Probst CE, Mahler H-C, Joerg S, Huwyler J, Mathaes R. *Assessing Particle Formation of Biotherapeutics in Biological Fluids*. Journal of Pharmaceutical Sciences. **2021**. 110:1527–32.
37. Schuster J, Mahler H-C, Joerg S, Kamuju V, Huwyler J, Mathaes R. *Stability of monoclonal antibodies after simulated subcutaneous administration*. Journal of Pharmaceutical Sciences. **2021**. 110:2386–94.
38. 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.
39. Schröter A, Mahler H-C, Sayed NB, Koulov AV, Huwyler J, Jahn M. *4-Hydroxynonenal – A Toxic Leachable from Clinically Used Administration Materials*. Journal of Pharmaceutical Sciences. **2021**. 110:3268–75.
40. Schröter A, Koulov AV, Huwyler J, Mahler H-C, Jahn M. *4-Hydroxynonenal is An Oxidative Degradation Product of Polysorbate 80*. Journal of Pharmaceutical Sciences. **2021**. 110:2524–30.
41. Schreiner V, Detampel P, Jirkof P, Puchkov M, Huwyler J. *Buprenorphine loaded PLGA microparticles: Characterization of a sustained-release formulation*. Journal of Drug Delivery Science and Technology. **2021**. 63:102558.
42. 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.
43. 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.

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44. 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*. *Molecular Pharmaceutics*. **2021**. 18:2004–14.
45. Nicolle L, Casper J, Willmann 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.
46. Jere D, Sediq AS, Huwyler J, Vollrath I, Kardorff M, Mahler H-C. *Challenges for Cell-Based Medicinal Products From a Pharmaceutical Product Perspective*. *Journal of Pharmaceutical Sciences*. **2021**. 110:1900–8.
47. Dreckmann T, Ludwig IS, Luemkemann J, Huwyler J. *Low-Volume Aseptic Filling Using a Linear Peristaltic Pump*. *PDA Journal of Pharmaceutical Science and Technology*. **2021**. 75:245–57.
48. Bachmann F, Duthaler U, Meyer zu Schwabedissen HE, 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.
49. Yokoyama R, Kimura G, Huwyler J, Hosoya K, Puchkov M. *Impact of Insoluble Separation Layer Mechanical Properties on Disintegration and Dissolution Kinetics of Multilayer Tablets*. *Pharmaceutics*. **2020**. 12:495.
50. Wagner-Hattler L, Québatte G, Keiser J, Schoelkopf J, Schlepütz CM, Huwyler J, Puchkov M. *Study of drug particle distributions within mini-tablets using synchrotron X-ray microtomography and superpixel image clustering*. *International Journal of Pharmaceutics*. **2020**. 573:118827.
51. Vollrath I, Mathaes R, Sediq AS, Jere D, Jörg S, Huwyler J, Mahler H-C. *Subvisible Particulate Contamination in Cell Therapy Products—Can We Distinguish?* *JPharmSci*. **2020**. 109:216–9.
52. Suenderhauf C, Berger B, Puchkov M, Schmid Y, Müller S, Huwyler J, Haschke M, Krähenbühl S, Duthaler U. *Pharmacokinetics and phenotyping properties of the Basel phenotyping cocktail combination capsule in healthy male adults*. *British Journal of Clinical Pharmacology*. **2020**. 86:352–61.
53. Sedighi M, Rahimi F, Shahbazi M-A, Rezayan AH, Kettiger H, Einfalt T, Huwyler J, Witzigmann D. *Controlled Tyrosine Kinase Inhibitor Delivery to Liver Cancer Cells by Gate-Capped Mesoporous Silica Nanoparticles*. *ACS Appl Bio Mater*. **2020**. 3:239–51.
54. Schuster J, Mahler H-C, Koulov A, Joerg S, Racher A, Huwyler J, Detampel P, Mathaes R. *Tracking the physical stability of fluorescent-labeled mAbs under physiologic in vitro conditions in human serum and PBS*. *European Journal of Pharmaceutics and Biopharmaceutics*. **2020**. 152:193–201.
55. Schuster J, Koulov A, Mahler H-C, Joerg S, Huwyler J, Schleicher K, Detampel P, Mathaes R. *Particle Analysis of Biotherapeutics in Human Serum Using Machine Learning*. *JPharmSci*. **2020**. 109:1827–32.
56. Schuster J, Koulov A, Mahler H-C, Detampel P, Huwyler J, Singh S, Mathaes R. *In Vivo Stability of Therapeutic Proteins*. *Pharmaceutical Research*. **2020**. 37:23.
57. Schreiner V, Durst M, Arras M, Detampel P, Jirkof P, Huwyler J. *Design and in vivo evaluation of a microparticulate depot formulation of buprenorphine for veterinary use*. *Scientific Reports*. **2020**. 10:1–14.
58. Schmidt A, Koulov A, Huwyler J, Mahler H-C, Jahn M. *Stabilizing Polysorbate 20 and 80 Against Oxidative Degradation*. *Journal of Pharmaceutical Sciences*. **2020**. 109:1924–32.
59. Schittny A, Huwyler J, Puchkov M. *Mechanisms of increased bioavailability through amorphous solid dispersions: a review*. *Drug Delivery*. **2020**. 27:110–27.

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60. Schittny A, Philipp-Bauer S, Detampel P, Huwyler J, Puchkov M. *Mechanistic insights into effect of surfactants on oral bioavailability of amorphous solid dispersions*. Journal of Controlled Release. **2020**. 320:214–25.
61. Nikolaev YA, Tutel'yan AV, Loiko NG, Buck J, Sidorenko SV, Lazareva I, Gostev V, Manzen'yuk OY, Shemyakin IG, Abramovich RA, Huwyler J, El'-Registan GI. *The use of 4-Hexylresorcinol as antibiotic adjuvant*. PLOS ONE. **2020**. 15:e0239147.
62. Matter M, Mühlebach S, Puchkov M, Huwyler J. *Missbrauch von Opioiden und mögliche Auswege aus der Opioid-Krise*. Therapeutische Umschau. **2020**. 77:24–8.
63. Liu J, Craciun I, Belluati A, Wu D, Sieber S, Einfalt T, Witzigmann D, Chami M, Huwyler J, G. Palivan C. *DNA-directed arrangement of soft synthetic compartments and their behavior in vitro and in vivo*. Nanoscale. **2020**. 12:9786–99.
64. Keller L, Palmeirim MS, Ame SM, Ali SM, Puchkov M, Huwyler J, Hattendorf J, Keiser J. *Efficacy and Safety of Ascending Dosages of Moxidectin and Moxidectin-albendazole Against Trichuris trichiura in Adolescents: A Randomized Controlled Trial*. Clin Infect Dis. **2020**. 70:1193–201.
65. Haeuser C, Goldbach P, Huwyler J, Friess W, Allmendinger A. *Impact of dextran on thermal properties, product quality attributes, and monoclonal antibody stability in freeze-dried formulations*. European Journal of Pharmaceutics and Biopharmaceutics. **2020**. 147:45–56.
66. Haeuser C, Goldbach P, Huwyler J, Friess W, Allmendinger A. *Excipients for Room Temperature Stable Freeze-Dried Monoclonal Antibody Formulations*. Journal of Pharmaceutical Sciences. **2020**. 109:807–17.
67. Grapentin C, Müller C, Kishore RSK, Adler M, ElBialy I, Friess W, Huwyler J, Khan TA. *Protein-Polydimethylsiloxane Particles in Liquid Vial Monoclonal Antibody Formulations Containing Poloxamer 188*. Journal of Pharmaceutical Sciences. **2020**. 109:2393–404.
68. Farzan M, Québatte G, Strittmatter K, Hilty FM, Schoelkopf J, Huwyler J, Puchkov M. *Spontaneous In Situ Formation of Liposomes from Inert Porous Microparticles for Oral Drug Delivery*. Pharmaceutics. **2020**. 12:777.
69. Einfalt T, Garni M, Witzigmann D, Sieber S, Baltisberger N, Huwyler J, Meier W, Palivan CG. *Bioinspired Molecular Factories with Architecture and In Vivo Functionalities as Cell Mimics*. Advanced Science. **2020**. 7:1901923.
70. Ehrsam D, Sieber S, Oufir M, Porta F, Hamburger M, Huwyler J, Meyer zu Schwabedissen HE. *Design, Synthesis, and Characterization of a Paclitaxel Formulation Activated by Extracellular MMP9*. Bioconjugate Chemistry. **2020**. 31:781–93.
71. Dreckmann T, Aipperspach W, Pflegar K, Tröndle J, Ernst A, Huwyler J, Ludwig I-S, Luemkemann J. *Assessment of Sensor Concepts for 100% In-Process Control of Low-Volume Aseptic Fill-Finish Processes*. PDA Journal of Pharmaceutical Science and Technology. **2020**. 74:660–73.
72. Cörek E, Rodgers G, Siegrist S, Einfalt T, Detampel P, Schlepütz CM, Sieber S, Fluder P, Schulz G, Unterweger H, Alexiou C, Müller B, Puchkov M, Huwyler J. *Shedding Light on Metal-Based Nanoparticles in Zebrafish by Computed Tomography with Micrometer Resolution*. Small. **2020**. 16:2000746.
73. Buck J, Mueller D, Mettal U, Ackermann M, Grisch-Chan HM, Thöny B, Zumbuehl A, Huwyler J, Witzigmann D. *Improvement of DNA Vector Delivery of DOTAP Lipoplexes by Short-Chain Aminolipids*. ACS Omega. **2020**. 5:24724–32.
74. Witzigmann D, Uhl P, Sieber S, Kaufman C, Einfalt T, Schöneweis K, Grossen P, Buck J, Ni Y, Schenk SH, Hussner J, Meyer zu Schwabedissen HE, Québatte G, Mier W, Urban S, Huwyler J. *Optimization-by-design of hepatotropic lipid nanoparticles targeting the sodium-taurocholate cotransporting polypeptide*. Kana BD, Stainier DY, Hak S, editors. eLife. **2019**. 8:e42276.

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75. Wagner-Hattler L, Schoelkopf J, Huwyler J, Puchkov M. *Stability investigation of FCC-based tablets for oral suspension with caffeine and oxantel pamoate as model drugs*. Drug Development and Industrial Pharmacy. **2019**. 45:222–30.
76. Sieber S, Grossen P, Uhl P, Detampel P, Mier W, Witzigmann D, Huwyler J. *Zebrafish as a predictive screening model to assess macrophage clearance of liposomes in vivo*. Nanomedicine: Nanotechnology, Biology and Medicine. **2019**. 17:82–93.
77. Sieber S, Grossen P, Bussmann J, Campbell F, Kros A, Witzigmann D, Huwyler J. *Zebrafish as a preclinical in vivo screening model for nanomedicines*. Advanced Drug Delivery Reviews. **2019**. 151–152:152–68.
78. Sedighi M, Sieber S, Rahimi F, Shahbazi M-A, Rezayan AH, Huwyler J, Witzigmann D. *Rapid optimization of liposome characteristics using a combined microfluidics and design-of-experiment approach*. Drug Deliv and Transl Res. **2019**. 9:404–13.
79. Neodo A, Schulz JD, Huwyler J, Keiser J. *In Vitro and In Vivo Drug-Drug Interaction Study of the Effects of Ivermectin and Oxantel Pamoate on Tribendimidine*. Antimicrobial Agents and Chemotherapy. **2019**. 63:e00762-18.
80. Meister I, Assawasuwannakit P, Vanobberghen F, Penny MA, Odermatt P, Sayasone S, Huwyler J, Tarning J, Keiser J. *Pooled Population Pharmacokinetic Analysis of Tribendimidine for the Treatment of Opisthorchis viverrini Infections*. Antimicrobial Agents and Chemotherapy. **2019**. 63:e01391-18.
81. Mech A, Rasmussen K, Jantunen P, Aicher L, Alessandrelli M, Bernauer U, Bleeker EAJ, Bouillard J, Fanghella PDP, Draisci R, Dusinska M, Encheva G, Flament G, Haase A, Handzhiyski Y, Herzberg F, Huwyler J, Jacobsen NR, Jeliaskov V, Jeliaskova N, Nymark P, Grafström R, Oomen AG, Polci ML, Riebeling C, Sandström J, Shivachev B, Stateva S, Tanasescu S, Tsekovska R, Wallin H, Wilks MF, Zellmer S, Apostolova MD. *Insights into possibilities for grouping and read-across for nanomaterials in EU chemicals legislation*. Nanotoxicology. **2019**. 13:119–41.
82. Kiene K, Hayasi N, Burhenne J, Uchitomi R, Sünderhauf C, Schmid Y, Haschke M, Haefeli WE, Krähenbühl S, Mikus G, Inada H, Huwyler J. *Microdosed midazolam for the determination of cytochrome P450 3A activity: Development and clinical evaluation of a buccal film*. European Journal of Pharmaceutical Sciences. **2019**. 135:77–82.
83. Haeuser C, Goldbach P, Huwyler J, Friess W, Allmendinger A. *Be Aggressive! Amorphous Excipients Enabling Single-Step Freeze-Drying of Monoclonal Antibody Formulations*. Pharmaceutics. **2019**. 11:616.
84. Farzan, Maryam, Roth R, Québatte G, Schoelkopf J, Huwyler J, Puchkov M. *Loading of Porous Functionalized Calcium Carbonate Microparticles: Distribution Analysis with Focused Ion Beam Electron Microscopy and Mercury Porosimetry*. Pharmaceutics. **2019**. 11:1–14.
85. Buck J, Grossen P, Cullis PR, Huwyler J, Witzigmann D. *Lipid-Based DNA Therapeutics: Hallmarks of Non-Viral Gene Delivery*. ACS Nano. **2019**. 13:3754–82.
86. Bleher S, Buck J, Muhl C, Sieber S, Barnert S, Witzigmann D, Huwyler J, Barz M, Süss R. *Poly(Sarcosine) Surface Modification Imparts Stealth-Like Properties to Liposomes*. Small. **2019**. 1904716:1–10.
87. Yokoyama R, Kimura G, Schlepütz CM, Huwyler J, Puchkov M. *Modeling of Disintegration and Dissolution Behavior of Mefenamic Acid Formulation Using Numeric Solution of Noyes-Whitney Equation with Cellular Automata on Microtomographic and Algorithmically Generated Surfaces*. Pharmaceutics. **2018**. 10(4):1–17.
88. Wimmersberger D, Coulibaly JT, Schulz JD, Puchkov M, Huwyler J, N'Gbesso Y, Hattendorf J, Keiser J. *Efficacy and Safety of Ivermectin Against Trichuris trichiura in Preschool-aged and School-aged Children: A Randomized Controlled Dose-finding Trial*. Clin Infect Dis. **2018**. 67:1247–55.

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89. Siegrist S, Cörek E, Detampel P, Sandström J, Wick P, Huwyler J. *Preclinical hazard evaluation strategy for nanomedicines*. *Nanotoxicology*. **2018**. 13:73–9.
90. Sedighi M, Rahimi F, Rezayan AH, Shahbazi M-A, Witzigmann D, Huwyler J. *Combined cerium oxide nanocapping and layer-by-layer coating of porous silicon containers for controlled drug release*. *Journal of Materials Science*. **2018**. 53:14975–88.
91. Schittny A, Ogawa H, Huwyler J, Puchkov M. *A combined mathematical model linking the formation of amorphous solid dispersions with hot-melt-extrusion process parameters*. *European Journal of Pharmaceutics and Biopharmaceutics*. **2018**. 132:127–45.
92. Roth R, Schoelkopf J, Huwyler J, Puchkov M. *Functionalized calcium carbonate microparticles for the delivery of proteins*. *European Journal of Pharmaceutics and Biopharmaceutics*. **2018**. 122:96–103.
93. Moser W, Sayasone S, Xayavong S, Bounheuang B, Puchkov M, Huwyler J, Hattendorf J, Keiser J. *Efficacy and tolerability of triple drug therapy with albendazole, pyrantel pamoate, and oxantel pamoate compared with albendazole plus oxantel pamoate, pyrantel pamoate plus oxantel pamoate, and mebendazole plus pyrantel pamoate and oxantel pamoate against hookworm infections in school-aged children in Laos: a randomised, single-blind trial*. *The Lancet Infectious Diseases*. **2018**. 18:729–37.
94. Hiroshige N, Coulibaly J, Huwyler J, Bonate PL, Keiser J. *Pharmacokinetics of a Pediatric Tribendimidine Dose-Finding Study To Treat Hookworm Infection in African Children*. *Antimicrobial Agents and Chemotherapy*. **2018**. 62:e00959-18.
95. Haeuser C, Goldbach P, Huwyler J, Friess W, Allmendinger A. *Imaging Techniques to Characterize Cake Appearance of Freeze-Dried Products*. *Journal of Pharmaceutical Sciences*. **2018**. 107:2810–22.
96. Einfalt T, Witzigmann D, Edlinger C, Sieber S, Goers R, Najer A, Spulber M, Onaca-Fischer O, Huwyler J, Palivan CG. *Biomimetic artificial organelles with in vitro and in vivo activity triggered by reduction in microenvironment*. *Nature Communications*. **2018**. 9:1127–239.
97. Ditter D, Nieto A, Mahler H-C, Roehl H, Wahl M, Huwyler J, Allmendinger A. *Evaluation of Glass Delamination Risk in Pharmaceutical 10 mL/10R Vials*. *Journal of Pharmaceutical Sciences*. **2018**. 107:624–37.
98. Ditter D, Mahler H-C, Roehl H, Wahl M, Huwyler J, Nieto A, Allmendinger A. *Characterization of surface properties of glass vials used as primary packaging material for parenterals*. *European Journal of Pharmaceutics and Biopharmaceutics*. **2018**. 125:58–67.
99. Ditter D, Mahler H-C, Gohlke L, Nieto A, Roehl H, Huwyler J, Wahl M, Allmendinger A. *Impact of Vial Washing and Depyrogenation on Surface Properties and Delamination Risk of Glass Vials*. *Pharmaceutical Research*. **2018**. 35:146.
100. Campbell F, Bos FL, Sieber S, Arias-Alpizar G, Koch BE, Huwyler J, Kros A, Busmann J. *Directing Nanoparticle Biodistribution through Evasion and Exploitation of Stab2-Dependent Nanoparticle Uptake*. *ACS Nano*. **2018**. 12:2138–50.
101. Boll B, Josse L, Heubach A, Hochenauer S, Finkler C, Huwyler J, Koulov AV. *Impact of non-ideal analyte behavior on the separation of protein aggregates by asymmetric flow field-flow fractionation*. *Journal of Separation Science*. **2018**. 41:2854–64.
102. Barda B, Ame SM, Ali SM, Albonico M, Puchkov M, Huwyler J, Hattendorf J, Keiser J. *Efficacy and tolerability of moxidectin alone and in co-administration with albendazole and tribendimidine versus albendazole plus oxantel pamoate against Trichuris trichiura infections: a randomised, non-inferiority, single-blind trial*. *The Lancet Infectious Diseases*. **2018**. 8:864–73.
103. Wagner-Hattler L, Wyss K, Schoelkopf J, Huwyler J, Puchkov M. *In vitro characterization and mouthfeel study of functionalized calcium carbonate in orally disintegrating tablets*. *International Journal of Pharmaceutics*. **2017**. 534:50–9.

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104. Wagner-Hattler L, Schoelkopf J, Huwyler J, Puchkov M. *Characterization of new functionalized calcium carbonate-polycaprolactone composite material for application in geometry-constrained drug release formulation development*. Drug Development and Industrial Pharmacy. **2017**. 0:1–8.
105. Uhl P, Pantze S, Storck P, Parmentier J, Witzigmann D, Hofhaus G, Huwyler J, Mier W, Fricker G. *Oral delivery of vancomycin by tetraether lipid liposomes*. European Journal of Pharmaceutical Sciences. **2017**. 108:111–8.
106. Thalmann P, Bikis C, Schulz G, Paleo P, Mirone A, Rack A, Siegrist S, Cörek E, Huwyler J, Müller B. *Removing ring artefacts from synchrotron radiation-based hard x-ray tomography data*. Developments in X-Ray Tomography XI. **2017**. 10391:1039114.
107. Siegrist S, Kettiger H, Fasler-Kan E, Huwyler J. *Selective stimulation of the JAK/STAT signaling pathway by silica nanoparticles in human endothelial cells*. Toxicology in Vitro. **2017**. 42:308–18.
108. Sieber S, Siegrist S, Schwarz S, Porta F, Schenk SH, Huwyler J. *Immobilization of Enzymes on PLGA Sub-Micrometer Particles by Crosslinked Layer-by-Layer Deposition*. Macromol Biosci. **2017**. 17:1–10.
109. Sieber S, Grossen P, Detampel P, Siegfried S, Witzigmann D, Huwyler J. *Zebrafish as an early stage screening tool to study the systemic circulation of nanoparticulate drug delivery systems in vivo*. Journal of Controlled Release. **2017**. 264:180–91.
110. Riede J, Poller B, Huwyler J, Camenisch G. *Assessing the risk of drug-induced cholestasis using unbound intrahepatic concentrations*. Drug Metabolism and Disposition. **2017**. 45:523–31.
111. Riede J, Camenisch G, Huwyler J, Poller B. *Current In Vitro Methods to Determine Hepatic K_{puu}: A Comparison of Their Usefulness and Limitations*. Journal of Pharmaceutical Sciences. **2017**. 106:2805–14.
112. Moser W, Coulibaly JT, Ali SM, Ame SM, Amour AK, Yapi RB, Albonico M, Puchkov M, Huwyler J, Hattendorf J, Keiser J. *Efficacy and safety of tribendimidine, tribendimidine plus ivermectin, tribendimidine plus oxantel pamoate, and albendazole plus oxantel pamoate against hookworm and concomitant soil-transmitted helminth infections in Tanzania and Côte d'Ivoire: a randomised, controlled, single-blinded, non-inferiority trial*. The Lancet Infectious Diseases. **2017**. 17:1162–71.
113. Kiene K, Schenk SH, Porta F, Ernst A, Witzigmann D, Grossen P, Huwyler J. *PDMS-b-PMOXA polymersomes for hepatocyte targeting and assessment of toxicity*. European Journal of Pharmaceutics and Biopharmaceutics. **2017**. 119:322–32.
114. Kiene K, Porta F, Topacogullari B, Detampel P, Huwyler J. *Self-assembling chitosan hydrogel: A drug-delivery device enabling the sustained release of proteins*. Journal of Applied Polymer Science. **2017**. 135:1–6.
115. Grossen P, Witzigmann D, Sieber S, Huwyler J. *PEG-PCL-based nanomedicines: A biodegradable drug delivery system and its application*. Journal of Controlled Release. **2017**. 260:46–60.
116. Boll B, Bessa J, Folzer E, Ríos Quiroz A, Schmidt R, Bulau P, Finkler C, Mahler H-C, Huwyler J, Iglesias A, Koulou AV. *Extensive Chemical Modifications in the Primary Protein Structure of IgG1 Subvisible Particles Are Necessary for Breaking Immune Tolerance*. Molecular Pharmaceutics. **2017**. 14:1292–9.
117. Barda B, Sayasone S, Phongluxa K, Xayavong S, Keoduangsy K, Odermatt P, Puchkov M, Huwyler J, Hattendorf J, Keiser J. *Efficacy of Moxidectin Versus Ivermectin Against Strongyloides stercoralis Infections: A Randomized, Controlled Noninferiority Trial*. Clinical Infectious Diseases. **2017**. 65:276–81.
118. Witzigmann D, Quagliata L, Schenk SH, Quintavalle C, Terracciano LM, Huwyler J. *Variable asialoglycoprotein receptor 1 expression in liver disease: Implications for therapeutic intervention*. Hepatology Research. **2016**. 46:686–96.

Prof. Dr. Jörg Huwyler
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119. Witzigmann D, Detampel P, Porta F, Huwyler J. *Isolation of multiantennary N-glycans from glycoproteins for hepatocyte specific targeting via the asialoglycoprotein receptor*. RSC Adv. **2016**. 6:97636–40.
120. Werk T, Ludwig IS, Mahler H-C, Luemkemann J, Huwyler J, Hafner M. *The Effect of Formulation, Process, and Method Variables on the Reconstitution Time in Dual Chamber Syringes*. PDA Journal of Pharmaceutical Science and Technology. **2016**. 70:508–22.
121. Werk T, Ludwig IS, Luemkemann J, Mahler H-C, Huwyler J, Hafner M. *Technology, Applications, and Process Challenges of Dual Chamber Systems*. J Pharm Sci. **2016**. 105:4–9.
122. Ríos Quiroz A, Finkler C, Huwyler J, Mahler H-C, Schmidt R, Koulov AV. *Factors Governing the Accuracy of Subvisible Particle Counting Methods*. Journal of Pharmaceutical Sciences. **2016**. 105:2042–52.
123. Riede J, Poller B, Umehara K-I, Huwyler J, Camenisch G. *New IVIVE method for the prediction of total human clearance and relative elimination pathway contributions from in vitro hepatocyte and microsome data*. Eur J Pharm Sci. **2016**. 86:96–102.
124. Quiroz AR, Lamerz J, Cunha TD, Boillon A, Adler M, Finkler C, Huwyler J, Schmidt R, Mahler H-C, Koulov AV. *Factors Governing the Precision of Subvisible Particle Measurement Methods – A Case Study with a Low-Concentration Therapeutic Protein Product in a Prefilled Syringe*. Pharmaceutical Research. **2016**. 33:450–61.
125. Preisig D, Roth R, Tognola S, Varum FJO, Bravo R, Cetinkaya Y, Huwyler J, Puchkov M. *Mucoadhesive microparticles for local treatment of gastrointestinal diseases*. European Journal of Pharmaceutics and Biopharmaceutics. **2016**. 105:156–65.
126. Moser W, Ali SM, Ame SM, Speich B, Puchkov M, Huwyler J, Albonico M, Hattendorf J, Keiser J. *Efficacy and safety of oxantel pamoate in school-aged children infected with Trichuris trichiura on Pemba Island, Tanzania: a parallel, randomised, controlled, dose-ranging study*. Lancet Infect Dis. **2016**. 16:53–60.
127. Meister I, Leonidova A, Kovač J, Duthaler U, Keiser J, Huwyler J. *Development and validation of an enantioselective LC–MS/MS method for the analysis of the anthelmintic drug praziquantel and its main metabolite in human plasma, blood and dried blood spots*. Journal of Pharmaceutical and Biomedical Analysis. **2016**. 118:81–8.
128. Meister I, Kovac J, Duthaler U, Odermatt P, Huwyler J, Vanobberghen F, Sayasone S, Keiser J. *Pharmacokinetic Study of Praziquantel Enantiomers and Its Main Metabolite R-trans-4-OH-PZQ in Plasma, Blood and Dried Blood Spots in Opisthorchis viverrini-Infected Patients*. PLoS Neglected Tropical Diseases. **2016**. 10:1–15.
129. Mathaes R, Mahler H-C, Buettiker J-P, Roehl H, Lam P, Brown H, Luemkemann J, Adler M, Huwyler J, Streubel A, Mohl S. *The pharmaceutical vial capping process: Container closure systems, capping equipment, regulatory framework, and seal quality tests*. European Journal of Pharmaceutics and Biopharmaceutics. **2016**. 99:54–64.
130. Leonidova A, Vargas M, Huwyler J, Keiser J. *Pharmacokinetics of the Antischistosomal Lead Ozonide OZ418 in Uninfected Mice Determined by Liquid Chromatography-Tandem Mass Spectrometry*. Antimicrob Agents Chemother. **2016**. 60:7364–71.
131. Kettiger H, Québatte G, Perrone B, Huwyler J. *Interactions between silica nanoparticles and phospholipid membranes*. Biochimica Et Biophysica Acta. **2016**. 1858:2163–70.
132. Grossen P, Québatte G, Witzigmann D, Prescianotto-Baschong C, Dieu L-H, Huwyler J. *Functionalized Solid-Sphere PEG-b-PCL Nanoparticles to Target Brain Capillary Endothelial Cells In Vitro*. Journal of Nanomaterials. **2016**. 2016:1–13.

Prof. Dr. Jörg Huwyler
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133. Gliesche DG, Hussner J, Witzigmann D, Porta F, Glatter T, Schmidt A, Huwyler J, Meyer zu Schwabedissen HE. *Secreted Matrix Metalloproteinase-9 of Proliferating Smooth Muscle Cells as a Trigger for Drug Release from Stent Surface Polymers in Coronary Arteries*. *Mol Pharmaceutics*. **2016**. 13:2290–300.
134. Eberle VA, Häring A, Schoelkopf J, Gane PAC, Huwyler J, Puchkov M. *In silico and in vitro methods to optimize the performance of experimental gastroretentive floating mini-tablets*. *Drug Development and Industrial Pharmacy*. **2016**. 42:808–17.
135. Duthaler U, Sayasone S, Vanobbergen F, Penny MA, Odermatt P, Huwyler J, Keiser J. *Single-Ascending-Dose Pharmacokinetic Study of Tribendimidine in Opisthorchis viverrini-Infected Patients*. *Antimicrob Agents Chemother*. **2016**. 60:5705–15.
136. Camblin M, Berger B, Haschke M, Krähenbühl S, Huwyler J, Puchkov M. *CombiCap: A novel drug formulation for the basal phenotyping cocktail*. *International Journal of Pharmaceutics*. **2016**. 512:253–61.
137. Buck J, Huwyler J, Kühl P, Dischinger A. *Pediatric Dispersible Tablets: a Modular Approach for Rapid Prototyping*. *Pharmaceutical Research*. **2016**. 33:2043–55.
138. Barda B, Coulibaly JT, Puchkov M, Huwyler J, Hattendorf J, Keiser J. *Efficacy and Safety of Moxidectin, Synriam, Synriam-Praziquantel versus Praziquantel against Schistosoma haematobium and S. mansoni Infections: A Randomized, Exploratory Phase 2 Trial*. *PLoS Neglected Tropical Diseases*. **2016**. 10:1–15.
139. Witzigmann D, Wu D, Schenk SH, Balasubramanian V, Meier W, Huwyler J. *Biocompatible Polymer–Peptide Hybrid-Based DNA Nanoparticles for Gene Delivery*. *ACS Appl Mater Interfaces*. **2015**. 7:10446–56.
140. Witzigmann D, Sieber S, Porta F, Grossen P, Bieri A, Strelnikova N, Pfohl T, Prescianotto-Baschong C, Huwyler J. *Formation of lipid and polymer based gold nanohybrids using a nanoreactor approach*. *RSC Adv*. **2015**. 5:74320–8.
141. Wicki A, Witzigmann D, Balasubramanian V, Huwyler J. *Nanomedicine in cancer therapy: challenges, opportunities, and clinical applications*. *J Control Release*. **2015**. 200:138–57.
142. Werk T, Huwyler J, Hafner M, Luemkemann J, Mahler H-C. *An Impedance-Based Method to Determine Reconstitution Time for Freeze-Dried Pharmaceuticals*. *J Pharm Sci*. **2015**. 104:2948–55.
143. Studer C, Aicher L, Gasic B, von Goetz N, Hoet P, Huwyler J, Kägi R, Kase R, Kobe A, Nowack B, Rothen-Rutishauser B, Schirmer K, Schneider G, Vermeissen E, Wick P, Walser T. *Scientific Basis for Regulatory Decision-Making of Nanomaterials Report on the Workshop, 20-21 January 2014, Center of Applied Ecotoxicology, Dübendorf*. *Chimia (Aarau)*. **2015**. 69:52–6.
144. Speich B, Ali SM, Ame SM, Bogoch II, Alles R, Huwyler J, Albonico M, Hattendorf J, Utzinger J, Keiser J. *Efficacy and safety of albendazole plus ivermectin, albendazole plus mebendazole, albendazole plus oxfantel pamoate, and mebendazole alone against Trichuris trichiura and concomitant soil-transmitted helminth infections: a four-arm, randomised controlled t*. *Lancet Infect Dis*. **2015**. 15:277–84.
145. Seeland S, Kettiger H, Murphy M, Treiber A, Giller J, Kiss A, Sube R, Krähenbühl S, Hafner M, Huwyler J. *ATP-induced cellular stress and mitochondrial toxicity in cells expressing purinergic P2X7 receptor*. *Pharmacol Res Perspect*. **2015**. 3:e00123.
146. Ríos Quiroz A, Québatte G, Stump F, Finkler C, Huwyler J, Schmidt R, Mahler H-C, Koulov AV, Adler M. *Measuring Subvisible Particles in Protein Formulations Using a Modified Light Obscuration Sensor with Improved Detection Capabilities*. *Anal Chem*. **2015**. 87:6119–24.
147. Preisig D, Weingartner M, Varum FJO, Bravo R, Alles R, Huwyler J, Puchkov M. *Marker-ion analysis for quantification of mucoadhesivity of microparticles in particle-retention assays*. *Int J Pharm*. **2015**. 487:157–66.

Prof. Dr. Jörg Huwyler
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148. Kunze A, Poller B, Huwyler J, Camenisch G. *Application of the extended clearance concept classification system (ECCCS) to predict the victim drug-drug interaction potential of statins*. Drug Metab Pers Ther. **2015**. 30:175–88.
149. Kettiger H, Karaman DS, Schiesser L, Rosenholm JM, Huwyler J. *Comparative safety evaluation of silica-based particles*. Toxicol Vitro. **2015**. 30:355–63.
150. Jaeschke G, Kolczewski S, Spooren W, Vieira E, Bitter-Stoll N, Boissin P, Borroni E, Buttelmann B, Ceccarelli S, Clemann N, David B, Funk C, Guba W, Harrison A, Hartung T, Honer M, Huwyler J, Kuratli M, Niederhauser U, Pahler A, Peters JU, Petersen A, Prinssen E, Ricci A, Rueher D, Rueher M, Schneider M, Spurr P, Stoll T, Tannler D, Wichmann J, Porter RH, Wettstein JG, Lindemann L. *Metabotropic Glutamate Receptor 5 Negative Allosteric Modulators: Discovery of 2-Chloro-4-[1-(4-fluorophenyl)-2,5-dimethyl-1H-imidazol-4-ylethynyl]pyridine (Basimglurant, RO4917523), a Promising Novel Medicine for Psychiatric Diseases*. J Med Chem. **2015**. 58:1358–71.
151. Folzer E, Khan T, Schmidt R, Finkler C, Huwyler J, Mahler H-C, Koulov AV. *Determination of the Density of Protein Particles Using a Suspended Microchannel Resonator*. J Pharm Sci. **2015**. 104:4034–40.
152. Folzer E, Diepold K, Bomans K, Finkler C, Schmidt R, Bulau P, Huwyler J, Mahler H-C, Koulov AV. *Selective Oxidation of Methionine and Tryptophan Residues in a Therapeutic IgG1 Molecule*. J Pharm Sci. **2015**. 104:2824–31.
153. Eberle VA, Donzelli M, Alles R, Puchkov M, Huwyler J. *In Vivo Evaluation of a Gastroretentive Drug Delivery System Based on Enteric-Coated Floating Tablets*. Clin Res Open Access. **2015**. :1–4.
154. Duthaler U, Keiser J, Huwyler J. *LC–MS/MS method for the determination of two metabolites of tribendimidine, deacylated amidantel and its acetylated metabolite in plasma, blood and dried blood spots*. Journal of Pharmaceutical and Biomedical Analysis. **2015**. 105:163–73.
155. Camenisch G, Riede J, Kunze A, Huwyler J, Poller B, Umehara K. *The extended clearance model and its use for the interpretation of hepatobiliary elimination data*. Admet. **2015**. 3:1–14.
156. Boll B, Folzer E, Finkler C, Huwyler J, Mahler H-C, Schmidt R, Koulov AV. *Comparative Evaluation of Two Methods for Preparative Fractionation of Proteinaceous Subvisible Particles- Differential Centrifugation and FACS*. Pharm Res. **2015**. 32:3952–64.
157. Allmendinger A, Mueller R, Schwarb E, Chipperfield M, Huwyler J, Mahler H-C, Fischer S. *Measuring Tissue Back-Pressure - In Vivo Injection Forces During Subcutaneous Injection*. Pharm Res. **2015**. 32:2229–40.
158. Allmendinger A, Mueller R, Huwyler J, Mahler H-C, Fischer S. *Sterile Filtration of Highly Concentrated Protein Formulations: Impact of Protein Concentration, Formulation Composition, and Filter Material*. J Pharm Sci. **2015**. 104:3319–29.
159. Stirnimann T, Atria S, Schoelkopf J, Gane PA, Alles R, Huwyler J, Puchkov M. *Compaction of functionalized calcium carbonate, a porous and crystalline microparticulate material with a lamellar surface*. Int J Pharm. **2014**. 466:266–75.
160. Speich B, Ame SM, Ali SM, Alles R, Huwyler J, Hattendorf J, Utzinger J, Albonico M, Keiser J. *Oxantel pamoate-albendazole for Trichuris trichiura infection*. N Engl J Med. **2014**. 370:610–20.
161. Preisig D, Haid D, Varum FJO, Bravo R, Alles R, Huwyler J, Puchkov M. *Drug loading into porous calcium carbonate microparticles by solvent evaporation*. Eur J Pharm Biopharm. **2014**. 87:548–58.
162. Kunze A, Huwyler J, Poller B, Gutmann H, Camenisch G. *In vitro-in vivo extrapolation method to predict human renal clearance of drugs*. J Pharm Sci. **2014**. 103:994–1001.
163. Kunze A, Huwyler J, Camenisch G, Poller B. *Prediction of Organic Anion-Transporting Polypeptide 1B1- and 1B3-Mediated Hepatic Uptake of Statins Based on Transporter Protein Expression and Activity Data*. Drug Metab Dispos. **2014**. 42:1514–21.

Prof. Dr. Jörg Huwyler
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164. Eberle VA, Schoelkopf J, Gane PA, Alles R, Huwyler J, Puchkov M. *Floating gastroretentive drug delivery systems: Comparison of experimental and simulated dissolution profiles and floatation behavior*. Eur J Pharm Sci. **2014**. 58:34–43.
165. Dieu LH, Wu D, Palivan CG, Balasubramanian V, Huwyler J. *Polymersomes conjugated to 83-14 monoclonal antibodies: In vitro targeting of brain capillary endothelial cells*. Eur J Pharm Biopharm. **2014**. 88:316–24.
166. Detampel P, Witzigmann D, Krähenbühl S, Huwyler J. *Hepatocyte targeting using pegylated asialofetuin-conjugated liposomes*. J Drug Target. **2014**. 22:232–41.
167. Camblin M, Detampel P, Kettiger H, Wu D, Balasubramanian V, Huwyler J. *Polymersomes containing quantum dots for cellular imaging*. Int J Nanomedicine. **2014**. 9:2287–98.
168. Allmendinger A, Fischer S, Huwyler J, Mahler H-C, Schwarb E, Zarraga IE, Mueller R. *Rheological characterization and injection forces of concentrated protein formulations: An alternative predictive model for non-Newtonian solutions*. Eur J Pharm Biopharm. **2014**. 87:318–28.
169. Allmendinger A, Dieu L-H, Fischer S, Mueller R, Mahler H-C, Huwyler J. *High-throughput viscosity measurement using capillary electrophoresis instrumentation and its application to protein formulation*. J Pharm Biomed Anal. **2014**. 99:51–8.
170. Stirnimann T, Di Maiuta N, Gerard DE, Alles R, Huwyler J, Puchkov M. *Functionalized calcium carbonate as a novel pharmaceutical excipient for the preparation of orally dispersible tablets*. Pharm Res. **2013**. 30:1915–25.
171. Simmler LD, Buser TA, Donzelli M, Schramm Y, Dieu LH, Huwyler J, Chaboz S, Hoener MC, Liechti ME. *Pharmacological characterization of designer cathinones in vitro*. Br J Pharmacol. **2013**. 168:458–70.
172. Seeland S, Torok M, Kettiger H, Treiber A, Hafner M, Huwyler J. *A cell-based, multiparametric sensor approach characterises drug-induced cytotoxicity in human liver HepG2 cells*. Toxicol Vitro. **2013**. 27:1109–20.
173. Schoenbaechler A, Olfa G, Huwyler J, Frenz M, Pielech U. *Indocyanine green loaded biocompatible nanoparticles: Stabilization of indocyanine green (ICG) using biocompatible silica-poly(ϵ -caprolactone) grafted nanocomposites*. J Photochem Photobiol A Chem. **2013**. 261:12–9.
174. Sano Y, Kashiwamura Y, Abe M, Dieu L-H, Huwyler J, Shimizu F, Haruki H, Maeda T, Saito K, Tasaki A, Kanda T. *Stable human brain microvascular endothelial cell line retaining its barrier-specific nature independent of the passage number*. Clinical and Experimental Neuroimmunology. **2013**. 4:92–103.
175. Meister I, Duthaler U, Huwyler J, Rinaldi L, Bosco A, Cringoli G, Keiser J. *Efficacy and pharmacokinetics of OZ78 and MT04 against a natural infection with Fasciola hepatica in sheep*. Vet Parasitol. **2013**. 198:102–10.
176. Kettiger H, Schipanski A, Wick P, Huwyler J. *Engineered nanomaterial uptake and tissue distribution: From cell to organism*. Int J Nanomedicine. **2013**. 8:3255–69.
177. Fasler-Kan E, Barteneva NS, Ketterer S, Wunderlich K, Reschner A, Nurzhanova A, Flammer J, Huwyler J, Meyer P. *Human cytokines activate JAK-STAT signaling pathway in porcine ocular tissue*. Xenotransplantation. **2013**. 20:469–80.
178. Alles R, Puchkov M, Jablonski C, Speich B, Keiser J, Huwyler J. *Development of oxantel tablets for pediatric clinical studies : a technical note*. J Drug Deliv Sci Technol. **2013**. 23:623–5.
179. Suenderhauf C, Hammann F, Huwyler J. *Computational prediction of blood-brain barrier permeability using decision tree induction*. Molecules. **2012**. 17:10429–45.
180. Kunze A, Huwyler J, Camenisch G, Gutmann H. *Interaction of the antiviral drug telaprevir with renal and hepatic drug transporters*. Biochem Pharmacol. **2012**. 84:1096–102.

Prof. Dr. Jörg Huwyler
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181. Kirchhofer C, Vargas M, Huwyler J, Keiser J. *Pharmacokinetics of the fasciocidal drug candidates MT04 and OZ78 in uninfected rats and in vitro pharmacodynamic studies*. Int J Parasitol Drugs Drug Resist. **2012**. 2:121–5.
182. Hysek CM, Simmler LD, Nicola VG, Vischer N, Donzelli M, Krähenbühl S, Grouzmann E, Huwyler J, Hoener MC, Liechti ME. *Duloxetine inhibits effects of MDMA ('ecstasy') in vitro and in humans in a randomized placebo-controlled laboratory study*. PLoS One. **2012**. 7:1–15.
183. Duthaler U, Huwyler J, Rinaldi L, Cringoli G, Keiser J. *Evaluation of the pharmacokinetic profile of artesunate, artemether and their metabolites in sheep naturally infected with Fasciola hepatica*. Vet Parasitol. **2012**. 186:270–80.
184. Detampel P, Beck M, Krähenbühl S, Huwyler J. *Drug interaction potential of resveratrol*. Drug Metab Rev. **2012**. 44:253–65.
185. Suenderhauf C, Hammann F, Maunz A, Helma C, Huwyler J. *Combinatorial QSAR modeling of human intestinal absorption*. Mol Pharm. **2011**. 8:213–24.
186. Seeland S, Treiber A, Hafner M, Huwyler J. *On-line identification of P-glycoprotein substrates by monitoring of extracellular acidification and respiration rates in living cells*. Biochim Biophys Acta - Biomembr. **2011**. 1808:1827–31.
187. Schroeder K, Bremm KD, Alépée N, Bessems JGM, Blaauboer B, Boehn SN, Burek C, Coecke S, Gombau L, Hewitt NJ, Heylings J, Huwyler J, Jaeger M, Jagelavicius M, Jarrett N, Ketelslegers H, Kocina I, Koester J, Kreysa J, Note R, Poth A, Radtke M, Rogiers V, Scheel J, Schulz T, Steinkellner H, Toeroek M, Whelan M, Winkler P, Diembeck W. *Report from the EPAA workshop: In vitro ADME in safety testing used by EPAA industry sectors*. Toxicol Vitro. **2011**. 25:589–604.
188. Schmutz H-R, Detampel P, Bühler T, Büttler A, Gygax B, Huwyler J. *In vitro assessment of the formation of ceftriaxone-calcium precipitates in human plasma*. J Pharm Sci. **2011**. 100:2300–10.
189. Hysek CM, Simmler LD, Ineichen M, Grouzmann E, Hoener MC, Brenneisen R, Huwyler J, Liechti ME. *The norepinephrine transporter inhibitor reboxetine reduces stimulant effects of MDMA ('ecstasy') in humans*. Clin Pharmacol Ther. **2011**. 90:246–55.
190. Hammann F, Suenderhauf C, Huwyler J. *A binary Ant Colony Optimization classifier for molecular activities*. J Chem Inf Model. **2011**. 51:2690–6.
191. Duthaler U, Keiser J, Huwyler J. *Development and validation of a liquid chromatography and ion spray tandem mass spectrometry method for the quantification of artesunate, artemether and their major metabolites dihydroartemisinin and dihydroartemisinin-glucuronide in sheep plasma*. J Mass Spectrom. **2011**. 46:172–81.
192. Woltering TJ, Wichmann J, Goetschi E, Knoflach F, Ballard TM, Huwyler J, Gatti S. *Synthesis and characterization of 1,3-dihydro-benzo[b][1,4]diazepin-2-one derivatives: Part 4. in vivo active potent and selective non-competitive metabotropic glutamate receptor 2/3 antagonists*. Bioorganic Med Chem Lett. **2010**. 20:6969–74.
193. Richter HGF, Freichel C, Huwyler J, Nakagawa T, Nettekoven M, Plancher JM, Raab S, Roche O, Schuler F, Taylor S, Ullmer C, Wiegand R. *Discovery of potent and selective histamine H3 receptor inverse agonists based on the 3,4-dihydro-2H-pyrazino[1,2-a]indol-1-one scaffold*. Bioorganic Med Chem Lett. **2010**. 20:5713–7.
194. Poller B, Drewe J, Krahenbuhl S, Huwyler J, Gutmann H. *Regulation of BCRP (ABCG2) and P-glycoprotein (ABCB1) by cytokines in a model of the human blood-brain barrier*. Cell Mol Neurobiol. **2010**. 30:63–70.
195. Mattei P, Boehringer M, Di Giorgio P, Fischer H, Hennig M, Huwyler J, Koçer B, Kuhn B, Loeffler BM, Macdonald A, Narquizian R, Rauber E, Sebokova E, Sprecher U. *Discovery of carmegliptin: a potent and long-acting dipeptidyl peptidase IV inhibitor for the treatment of type 2 diabetes*. Bioorg Med Chem Lett. **2010**. 20:1109–13.

Prof. Dr. Jörg Huwyler
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196. Kirchhofer C, Keiser J, Huwyler J. *Development and validation of a liquid chromatography/mass spectrometry method for pharmacokinetic studies of OZ78, a fasciocidal drug candidate*. J Chromatogr B Anal Technol Biomed Life Sci. **2010**. 878:2770–4.
197. Keiser J, Kirchhofer C, Haschke M, Huwyler J, Dong Y, Vennerstrom JL, Vanhoff K, Kaminsky R, Malikides N. *Efficacy, safety and pharmacokinetics of 1,2,4-trioxolane OZ78 against an experimental infection with Fasciola hepatica in sheep*. Vet Parasitol. **2010**. 173:228–35.
198. Fasler-Kan E, Suenderhauf C, Barteneva N, Poller B, Gyax D, Huwyler J. *Cytokine signaling in the human brain capillary endothelial cell line hCMEC/D3*. Brain Res. **2010**. 1354:15–22.
199. Fasler-Kan E, Barteneva N, Ketterer S, Wunderlich K, Huwyler J, Gyax D, Flammer J, Meyer P. *Activation of the JAK–STAT intracellular pathway in human retinal pigment epithelial cell line ARPE-19*. Int J Interf Cytokine Mediat Res. **2010**. 2:127–36.
200. Boehringer M, Fischer H, Hennig M, Hunziker D, Huwyler J, Kuhn B, Loeffler BM, Luebbers T, Mattei P, Narquizian R, Sebokova E, Sprecher U, Wessel HP. *Aryl- and heteroaryl-substituted aminobenzo[a]quinolizines as dipeptidyl peptidase IV inhibitors*. Bioorganic Med Chem Lett. **2010**. 20:1106–8.
201. Vieira E, Huwyler J, Jolidon S, Knoflach F, Mutel V, Wichmann J. *Fluorinated 9H-xanthene-9-carboxylic acid oxazol-2-yl-amides as potent, orally available mGlu1 receptor enhancers*. Bioorganic Med Chem Lett. **2009**. 19:1666–9.
202. Pierson PD, Freichel C, Gatti-Mac Arthur S, Hertel C, Huwyler J, Mohr P, Nakagawa T, Nettekoven M, Plancher J-M, Raab S, Richter H, Roche O, Rodriguez Sarmiento RM, Schmitt M, Schuler F, Takahashi T, Taylor S, Ullmer C, Wiegand R. *Histamine-3 Receptor Inverse Agonists for the Treatment of Obesity: Validation of the Target and Identification of Novel Series*. CHIMIA International Journal for Chemistry. **2009**. 63:275–8.
203. Pierson PD, Fettes A, Freichel C, Gatti-McArthur S, Hertel C, Huwyler J, Mohr P, Nakagawa T, Nettekoven M, Plancher JM, Raab S, Richter H, Roche O, Rodriguez Sarmiento RM, Schmitt M, Schuler F, Takahashi T, Taylor S, Ullmer C, Wiegand R. *5-hydroxyindole-2-carboxylic acid amides: novel histamine-3 receptor inverse agonists for the treatment of obesity*. J Med Chem. **2009**. 52:3855–68.
204. Woltering TJ, Wichmann J, Goetschi E, Adam G, Kew JN, Knoflach F, Ballard TM, Huwyler J, Mutel V, Gatti S. *Synthesis and characterization of 1,3-dihydro-benzo[b][1,4]diazepin-2-one derivatives: Part 3. New potent non-competitive metabotropic glutamate receptor 2/3 antagonists*. Bioorg Med Chem Lett. **2008**. 18:2725–9.
205. Tuffin G, Huwyler J, Waelti E, Hammer C, Marti HP. *Drug targeting using OX7-immunoliposomes: correlation between Thy1.1 antigen expression and tissue distribution in the rat*. J Drug Target. **2008**. 16:156–66.
206. Poller B, Gutmann H, Krahenbuhl S, Weksler B, Romero I, Couraud PO, Tuffin G, Drewe J, Huwyler J. *The human brain endothelial cell line hCMEC/D3 as a human blood-brain barrier model for drug transport studies*. J Neurochem. **2008**. 107:1358–68.
207. Malherbe P, Masciadri R, Norcross RD, Knoflach F, Kratzeisen C, Zenner MT, Kolb Y, Marcuz A, Huwyler J, Nakagawa T, Porter RH, Thomas AW, Wettstein JG, Sleight AJ, Spooren W, Prinssen EP. *Characterization of (R,S)-5,7-di-tert-butyl-3-hydroxy-3-trifluoromethyl-3H-benzofuran-2-one as a positive allosteric modulator of GABAB receptors*. Br J Pharmacol. **2008**. 154:797–811.
208. Huwyler J, Drewe J, Krähenbühl S. *Tumor targeting using liposomal antineoplastic drugs*. Int J Nanomedicine. **2008**. 3:21–9.
209. Du-Cuny L, Huwyler J, Wiese M, Kansy M. *Computational aqueous solubility prediction for drug-like compounds in congeneric series*. Eur J Med Chem. **2008**. 43:501–12.

Prof. Dr. Jörg Huwyler
University of Basel - Pharmaceutical Technology

210. Bittner B, González RCB, Bohrmann B, Kuentz M, Huwyler J. *Drug-excipient interactions by Vitamin E-TPGS: in vitro studies on inhibition of P-glycoprotein and colonic drug absorption*. J Drug Deliv Sci Technol. **2008**. 18:145–8.
211. Bendels S, Kansy M, Wagner B, Huwyler J. *In silico prediction of brain and CSF permeation of small molecules using PLS regression models*. Eur J Med Chem. **2008**. 43:1581–92.
212. Jaeschke G, Porter R, Büttelmann B, Ceccarelli SM, Guba W, Kuhn B, Kolczewski S, Huwyler J, Mutel V, Peters JU, Ballard T, Prinssen E, Vieira E, Wichmann J, Spooren W. *Synthesis and biological evaluation of fenobam analogs as mGlu5 receptor antagonists*. Bioorganic Med Chem Lett. **2007**. 17:1307–11.
213. Du-Cuny L, Huwyler J, Fischer H, Kansy M. *A potentiometric titration method for the crystallization of drug-like organic molecules*. Int J Pharm. **2007**. 342:161–7.
214. Ceccarelli SM, Jaeschke G, Büttelmann B, Huwyler J, Kolczewski S, Peters JU, Prinssen E, Porter R, Spooren W, Vieira E. *Rational design, synthesis, and structure-activity relationship of benzoxazolones: new potent mglu5 receptor antagonists based on the fenobam structure*. Bioorg Med Chem Lett. **2007**. 17:1302–6.
215. Huwyler J, Wright MB, Gutmann H, Drewe J. *Induction of cytochrome P450 3A4 and P-glycoprotein by the isoxazolyl-penicillin antibiotic flucloxacillin*. Curr Drug Metab. **2006**. 7:119–26.
216. Büttelmann B, Peters J-U, Ceccarelli S, Kolczewski S, Vieira E, Prinssen EP, Spooren W, Schuler F, Huwyler J, Porter RHP, Jaeschke G. *Arylmethoxy-pyridines as novel, potent and orally active mGlu5 receptor antagonists*. Bioorg Med Chem Lett. **2006**. 16:1892–7.
217. Vieira E, Huwyler J, Jolidon S, Knoflach F, Mutel V, Wichmann J. *9H-Xanthene-9-carboxylic acid [1,2,4]oxadiazol-3-yl- and (2H-tetrazol-5-yl)-amides as potent, orally available mGlu1 receptor enhancers*. Bioorganic Med Chem Lett. **2005**. 15:4628–31.
218. Tuffin G, Waelti E, Huwyler J, Hammer C, Marti H-P. *Immunoliposome targeting to mesangial cells: a promising strategy for specific drug delivery to the kidney*. J Am Soc Nephrol. **2005**. 16:3295–305.
219. Schnyder A, Krähenbühl S, Drewe J, Huwyler J. *Targeting of daunomycin using biotinylated immunoliposomes: Pharmacokinetics, tissue distribution and in vitro pharmacological effects*. J Drug Target. **2005**. 13:325–35.
220. Schnyder A, Huwyler J. *Drug transport to brain with targeted liposomes*. NeuroRx. **2005**. 2:99–107.
221. Bittner B, Bravo Gonzalez RC, Walter I, Huwyler J. *Impact of Oral Administration of the Surface-Active Excipient Solutol HS 15 on the Pharmacokinetics of Intravenously Administered Colchicine*. Lett Drug Des Discov. **2005**. 2:193–5.
222. Ballard TM, Woolley ML, Prinssen E, Huwyler J, Porter R, Spooren W. *The effect of the mGlu5 receptor antagonist MPEP in rodent tests of anxiety and cognition: a comparison*. Psychopharmacology (Berl). **2005**. 179:218–29.
223. Schnyder A, Krähenbühl S, Török M, Drewe J, Huwyler J. *Targeting of skeletal muscle in vitro using biotinylated immunoliposomes*. Biochem J. **2004**. 377:61–7.
224. Derycke ASL, Kamuhabwa A, Gijssens A, Roskams T, De Vos D, Kasran A, Huwyler J, Missiaen L, de Witte P a M. *Transferrin-conjugated liposome targeting of photosensitizer AIPcS4 to rat bladder carcinoma cells*. J Natl Cancer Inst. **2004**. 96:1620–30.
225. Bravo González RCB, Huwyler J, Boess F, Walter I, Bittner B. *In vitro investigation on the impact of the surface-active excipients Cremophor EL, Tween 80 and Solutol HS 15 on the metabolism of midazolam*. Biopharm Drug Dispos. **2004**. 25:37–49.

Prof. Dr. Jörg Huwyler
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226. Török M, Huwyler J, Gutmann H, Fricker G, Drewe J. *Modulation of transendothelial permeability and expression of ATP-binding cassette transporters in cultured brain capillary endothelial cells by astrocytic factors and cell-culture conditions*. *Exp Brain Res*. **2003**. 153:356–65.
227. Schwab D, Fischer H, Tabatabaei A, Poli S, Huwyler J. *Comparison of in vitro P-glycoprotein screening assays: recommendations for their use in drug discovery*. *J Med Chem*. **2003**. 46:1716–25.
228. Higgins GA, Ballard TM, Huwyler J, Kemp JA, Gill R. *Evaluation of the NR2B-selective NMDA receptor antagonist Ro 63-1908 on rodent behaviour: evidence for an involvement of NR2B NMDA receptors in response inhibition*. *Neuropharmacology*. **2003**. 44:324–41.
229. Bittner B, González RCB, Walter I, Kapps M, Huwyler J. *Impact of solutol HS 15 on the pharmacokinetic behaviour of colchicine upon intravenous administration to male Wistar rats*. *Biopharmaceutics & Drug Disposition*. **2003**. 24:173–81.
230. Bittner B, González RCB, Isel H, Flament C. *Impact of Solutol HS 15 on the pharmacokinetic behavior of midazolam upon intravenous administration to male Wistar rats*. *Eur J Pharm Biopharm*. **2003**. 56:143–6.
231. Thöle M, Nobmann S, Huwyler J, Bartmann A, Fricker G. *Uptake of Cationized Albumin Coupled Liposomes by Cultured Porcine Brain Microvessel Endothelial Cells and Intact Brain Capillaries*. *Journal of Drug Targeting*. **2002**. 10:337–44.
232. Huwyler J, Cerletti A, Fricker G, Eberle AN, Drewe J. *By-passing of P-glycoprotein using immunoliposomes*. *J Drug Target*. **2002**. 10:73–9.
233. Gijssens A, Derycke A, Missiaen L, De Vos D, Huwyler J, Eberle A, De Witte P. *Targeting of the photocytotoxic compound AIPcS4 to HeLa cells by transferrin conjugated PEG-liposomes*. *International Journal of Cancer*. **2002**. 101:78–85.
234. Bravo González RC, Huwyler J, Walter I, Mountfield R, Bittner B. *Improved oral bioavailability of cyclosporin A in male Wistar rats: Comparison of a Solutol HS 15 containing self-dispersing formulation and a microsuspension*. *Int J Pharm*. **2002**. 245:143–51.
235. Grottick AJ, Trube G, Corrigan WA, Huwyler J, Malherbe P, Wyler R, Higgins GA. *Evidence that nicotinic alpha(7) receptors are not involved in the hyperlocomotor and rewarding effects of nicotine*. *J Pharmacol Exp Ther*. **2000**. 294:1112–9.
236. Cerletti A, Drewe J, Fricker G, Eberle A, Huwyler J. *Endocytosis and transcytosis of an immunoliposome-based brain drug delivery system*. *J Drug Target*. **2000**. 8:435–47.
237. Huwyler J, Froidevaux S, Roux F, Eberle AM. *Characterization of transferrin receptor in an immortalized cell line of rat brain endothelial cells, RBE4*. *Journal of Receptor and Signal Transduction Research*. **1999**. 19:729–39.
238. Gutmann H, Török M, Fricker G, Huwyler J, Beglinger C, Drewe J. *Modulation of multidrug resistance protein expression in porcine brain capillary endothelial cells in vitro*. *Drug Metabol Dispos*. **1999**. 27:937–41.
239. Drewe J, Gutmann H, Fricker G, Török M, Beglinger C, Huwyler J. *HIV protease inhibitor ritonavir: a more potent inhibitor of P-glycoprotein than the cyclosporine analog SDZ PSC 833*. *Biochem Pharmacol*. **1999**. 57:1147–52.
240. Török M, Huwyler J, Drewe J, Gutmann H, Fricker G. *Transport of the beta-lactam antibiotic benzylpenicillin and the dipeptide glycylsarcosine by brain capillary endothelial cells in vitro*. *Drug Metab Dispos*. **1998**. 26:1144–8.
241. Huwyler J, Pardridge WM. *Examination of blood-brain barrier transferrin receptor by confocal fluorescent microscopy of unfixed isolated rat brain capillaries*. *Journal of Neurochemistry*. **1998**. 70:883–6.

Prof. Dr. Jörg Huwyler
University of Basel - Pharmaceutical Technology

242. Huwyler J, Drewe J, Gutmann H, Thoele M, Fricker G. *Modulation of morphine-6-glucuronide penetration into the brain by P-glycoprotein*. Int J Clin Pharmacol Ther. **1998**. 36:69–70.
243. Golden PL, Huwyler J, Pardridge WM. *Treatment of large solid tumors in mice with daunomycin-loaded sterically stabilized liposomes*. Drug Deliv. **1998**. 5:207–12.
244. Fricker G, Drewe J, Miller DS, Huwyler J. *Excretion of a fluorescent rapamycin-derivative in proximal kidney tubules is mediated by P-glycoprotein*. International Journal of Clinical Pharmacology and Therapeutics. **1998**. 36:67–9.
245. Huwyler J, Yang J, Pardridge WM. *Receptor mediated delivery of daunomycin using immunoliposomes: pharmacokinetics and tissue distribution in the rat*. Journal of Pharmacology and Experimental Therapeutics. **1997**. 282:1541–6.
246. Huwyler J, Fricker G, Török M, Schneider M, Drewe J. *Transport of clonidine across cultured brain microvessel endothelial cells*. Journal of Pharmacology and Experimental Therapeutics. **1997**. 282:81–5.
247. Drewe J, Rufer S, Huwyler J, Küsters E. *High-performance liquid chromatographic method for an automated determination of local anaesthetics in human plasma*. J Chromatogr B Biomed Sci Appl. **1997**. 691:105–10.
248. Huwyler J, Wu D, Pardridge WM. *Brain drug delivery of small molecules using immunoliposomes*. Proc Natl Acad Sci U S A. **1996**. 93:14164–9.
249. Huwyler J, Drewe J, Klusemann C, Fricker G. *Evidence for P-glycoprotein-modulated penetration of morphine-6-glucuronide into brain capillary endothelium*. British Journal of Pharmacology. **1996**. 118:1879–85.
250. Fricker G, Drewe J, Huwyler J, Gutmann H, Beglinger C. *Relevance of p-glycoprotein for the enteral absorption of cyclosporin A: in vitro-in vivo correlation*. Br J Pharmacol. **1996**. 118:1841–7.
251. Huwyler J, Rufer S, Kuesters E, Drewe J. *Rapid and highly automated determination of morphine and morphine glucuronides in plasma by on-line solid-phase extraction and column liquid chromatography*. J Chromatogr B. **1995**. 674:57–63.
252. Gut J, Huwyler J. *Leukotriene B4 formation upon halothane-induced lipid peroxidation in liver membrane fractions under low O2 concentrations in vitro*. Eur J Biochem. **1994**. 219:287–95.
253. Gut J, Christen U, Huwyler J. *Mechanisms of halothane toxicity: novel insights*. Pharmacol Ther. **1993**. 58:133–55.
254. Huwyler J, Jedlitschky G, Keppler D, Gut J. *Halothane metabolism: Impairment of hepatic omega-oxidation of leukotrienes in vivo and in vitro*. Eur J Biochem. **1992**. 206:869–79.
255. Huwyler J, Gut J. *Exposure to the chlorofluorocarbon substitute 2,2-dichloro-1,1,1-trifluoroethane and the anesthetic agent halothane is associated with transient protein adduct formation in the heart*. Biochem Biophys Res Commun. **1992**. 184:1344–9.
256. Huwyler J, Aeschlimann D, Christen U, Gut J. *The kidney as a novel target tissue for protein adduct formation associated with metabolism of halothane and the candidate chlorofluorocarbon replacement 2,2-dichloro-1,1,1-trifluoroethane*. European Journal of Biochemistry. **1992**. 207:229–38.
257. Gut J, Christen U, Huwyler J, Burgin M, Kenna JG. *Molecular mimicry of trifluoroacetylated human liver protein adducts by constitutive proteins and immunochemical evidence for its impairment in halothane hepatitis*. European Journal of Biochemistry. **1992**. 210:569–76.
258. Huwyler J, Burgin M, Zeugin T, Gut J. *Transformation of 5-hydroperoxyeicosatetraenoic acid into dihydroxy- and cysteinyl-leukotrienes by rat hepatocytes: effects of glutathione*. Mol Pharmacol. **1991**. 39:314–23.

Prof. Dr. Jörg Huwyler
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259. Huwyler J, Gut J. *Single step organic extraction of leukotrienes and related compounds and their simultaneous analysis by high performance liquid chromatography*. Anal Biochem. **1990**. 188:374–82.

Prof. Dr. Jörg Huwyler
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Technical Reports

1. Wozniewski M, Besheer A, Sediq AS, Huwyler J, Mahler H-C, Levet V. *Characterization of Silicone from Closed System Transfer Devices and its Migration into Pharmaceutical Drug Products*. Journal of Pharmaceutical Sciences. **2024**. 113:419–26.
2. 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.
3. Wozniewski M, Besheer A, Huwyler J, Mahler H-C, Levet V, Sediq AS. *A Survey on Handling and Administration of Therapeutic Protein Products in German and Swiss Hospitals*. Journal of Pharmaceutical Sciences. **2024**. 113:735–43.
4. Peláez SS, Mahler H-C, Vila PR, Huwyler J, Allmendinger A. *Characterization of Freezing Processes in Drug Substance Bottles by Ice Core Sampling*. AAPS PharmSciTech. **2024**. 25:102.
5. Peláez SS, Mahler H-C, Huwyler J, Allmendinger A. *Directional freezing and thawing of biologics in drug substance bottles*. European Journal of Pharmaceutics and Biopharmaceutics. **2024**. 203:114427.
6. Hopf NB, Suter-Dick L, Huwyler J, Borgatta M, Hegg L, Pamies D, Paschoud H, Puligilla RD, Reale E, Werner S, Zurich M-G. *Novel Strategy to Assess the Neurotoxicity of Organic Solvents Such as Glycol Ethers: Protocol for Combining In Vitro and In Silico Methods With Human-Controlled Exposure Experiments*. JMIR Res Protoc. **2024**. 13:e50300.
7. Kardorff M, Mahler H-C, Huwyler J, Jere D, Sorret L. *Cryoprotection in Human Mesenchymal Stromal/Stem Cells: Synergistic Impact of Urea and Glucose*. Journal of Pharmaceutical Sciences. **2023**. 112:1681–6.
8. Kardorff M, Mahler H-C, Huwyler J, Sorret L. *Comparison of cell viability methods for human mesenchymal/stromal stem cells and human A549 lung carcinoma cells after freeze-thaw stress*. Journal of Pharmacological and Toxicological Methods. **2023**. 124:107474.
9. Schröter A, Peter S, Mahler H-C, Zerr A, Danton O, Chalus P, Koulov AV, Huwyler J, Jahn M. *Identification of an Oxidizing Leachable from a Clinical Syringe Rubber Stopper*. Journal of Pharmaceutical Sciences. **2021**. 110:3410–7.
10. Sanad MT, Alter C, Detampel P, Einfalt T, Huwyler J. *Manufacturing of Liposomes: A Direct Comparison of Extrusion and Microfluidics Protocols*. **2021** [cited **2021**]. Available from: [/articles/preprint/Manufacturing_of_Liposomes_A_Direct_Comparison_of_Extrusion_and_Microfluidics_Protocols/14604921/1](#)
11. Osterwalder M, Bolten JS, Rodgers G, Schulz G, Tanner C, Cörek E, Huwyler J, Müller B. *Three-dimensional X-ray microscopy of zebrafish larvae*. Bioinspiration, Biomimetics, and Bioreplication XI. **2021**. 11586:115860J.
12. 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. *Laboratory-based phase and absorption tomography for micro-imaging of annual layers in human tooth cementum, paraffin-embedded nerve and zebrafish embryo*. Developments in X-Ray Tomography XIII. **2021**. 11840:123–45.
13. Einfalt T, Detampel P, Häussinger D, Casper J, R. Meier C, Puchkov M, Huwyler J. *Hydroxychloroquine Immediate Release Tablets: Formulation and Evaluation of a Solid Dosage Form*. **2021** [cited **2021**]. Available from: [/articles/preprint/Hydroxychloroquine Immediate Release Tablets Formulation and Evaluation of a Solid Dosage Form/14170508/1](#)

Prof. Dr. Jörg Huwyler
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14. Dreckmann T, Boeuf J, Ludwig I-S, Lümkemann J, Huwyler J. *Low volume aseptic filling: Impact of pump systems on shear stress*. European Journal of Pharmaceutics and Biopharmaceutics. **2020**. 147:10–8.
15. Dreckmann T, Aipperspach W, Pfléghar K, TrÖndle J, Ernst A, Huwyler J, Ludwig I-S, Luemkemann J. *Assessment of Sensor Concepts for 100% In-Process Control of Low-Volume Aseptic Fill-Finish Processes*. PDA Journal of Pharmaceutical Science and Technology. **2020**. 74:660–73.
16. Ditter D, Nieto A, Mahler H-C, Roehl H, Wahl M, Huwyler J, Allmendinger A. *Evaluation of Glass Delamination Risk in Pharmaceutical 10 mL/10R Vials*. Journal of Pharmaceutical Sciences. **2018**. 107:624–37.
17. Ditter D, Mahler H-C, Roehl H, Wahl M, Huwyler J, Nieto A, Allmendinger A. *Characterization of surface properties of glass vials used as primary packaging material for parenterals*. European Journal of Pharmaceutics and Biopharmaceutics. **2018**. 125:58–67.
18. Ditter D, Mahler H-C, Gohlke L, Nieto A, Roehl H, Huwyler J, Wahl M, Allmendinger A. *Impact of Vial Washing and Depyrogenation on Surface Properties and Delamination Risk of Glass Vials*. Pharmaceutical Research. **2018**. 35:146.
19. Werk T, Mahler H-C, Ludwig IS, Luemkemann J, Huwyler J, Hafner M. *A method to determine the kinetics of solute mixing in liquid/liquid formulation dual-chamber syringes*. PDA Journal of Pharmaceutical Science and Technology. **2017**. 71:2–10.
20. Thalmann P, Bikis C, Schulz G, Paleo P, Rack A, Siegrist S, Cörek E, Huwyler J, Müller B. *Removing ring artefacts from synchrotron radiation-based hard xray tomography data*. Proceedings of SPIE. **2017**. 10391:14–24.
21. Werk T, Ludwig IS, Luemkemann J, Huwyler J, Mahler H-C, Haeuser CR, Hafner M. *New Processes for Freeze-Drying in Dual-Chamber Systems*. PDA J Pharm Sci Technol. **2016**. 70:191–207.
22. Mathaes R, Mahler H-C, Vorgrimler L, Steinberg H, Dreher S, Roggo Y, Nieto A, Brown H, Roehl H, Adler M, Luemkemann J, Huwyler J, Lam P, Stauch O, Mohl S, Streubel A. *The Pharmaceutical Capping Process–Correlation between Residual Seal Force, Torque Moment, and Flip-off Removal Force*. PDA J Pharm Sci Technol. **2016**. 70:218–29.
23. Mathaes R, Mahler H-C, Roggo Y, Huwyler J, Eder J, Fritsch K, Posset T, Mohl S, Streubel A. *Influence of Different Container Closure Systems and Capping Process Parameters on Product Quality and Container Closure Integrity (CCI) in GMP Drug Product Manufacturing*. PDA J Pharm Sci Technol. **2016**. 70:109–19.
24. Mathaes R, Mahler H-C, Roggo Y, Ovadia R, Lam P, Stauch O, Vogt M, Roehl H, Huwyler J, Mohl S, Streubel A. *Impact of Vial Capping on Residual Seal Force and Container Closure Integrity*. PDA J Pharm Sci Technol. **2016**. 70:12–29.

Prof. Dr. Jörg Huwyler
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Book Reviews

1. Witzigmann D, Camblin M, Huwyler J, Balasubramanian V. *Nanomaterials: Therapeutic Applications*. In: Mishra M, editor. *Encycl Biomed Polym Polym Biomater*. New York: Taylor & Francis; **2015**. p. 5364–78.
2. Mueller B, Zumbuehl A, Walter MA, Pfohl T, Cattin PC, Huwyler J, Hieber SE. *Translational Medicine: Nanoscience and Nanotechnology to Improve Patient Care*. In: *Nano-Micro Interface Bridg Micro Nano Worlds*. Wiley-VCH; **2015**. p. 291–309.
3. Bickel U, Kang Y-S, Huwyler J. *Brain-Specific Drug Targeting Strategies*. In: *Drug Targeting* [Internet]. John Wiley & Sons, Ltd; **2001** [cited **2020**]. p. 23–52. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/352760006X.ch2>
4. Huwyler J. *Brain targeting using immunoliposomes*. In: Paulson, O; Moos Knudsen, G; Moos T, editor. *Munksgaard, Copenhagen*; **1999**. p. 511–8.

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Patents

1. Alter C, Huwyler J, Palivan C, EINFALT T, DETAMPEL P. *Nano plasma membrane vesicle production process [Internet]*. WO2023180572A1, 2023 [cited **2024**]. Available from: [https://patents.google.com/patent/WO2023180572A1/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg&page=1](https://patents.google.com/patent/WO2023180572A1/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg&page=1)
2. Dogwiler J, Geipel A, Teutsch D, Huwiler C. *Modular infusion set with an integrated electrically powered functional component [Internet]*. EP2353628B1, 2021 [cited **2024**]. Available from: [https://patents.google.com/patent/EP2353628B1/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg](https://patents.google.com/patent/EP2353628B1/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg)
3. Wagner-Hattler L, Puchkov M, Huwyler J, Stirnimann T, Diaz Quijano C, Schoelkopf J, Gane PAC, Gerard DE. *Dispersible dosage form [Internet]*. 10617648, 2020. Available from: <https://patents.justia.com/patent/10617648>
4. Witzigmann D, Einfalt T, Sieber S, Palivan C, Huwyler J. *Method and computer program for determining a pharmacokinetic parameter in a biological sample by means of fluorescence correlation spectroscopy [Internet]*. WO2019243603A1, 2019 [cited **2024**]. Available from: [https://patents.google.com/patent/WO2019243603A1/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg&page=2](https://patents.google.com/patent/WO2019243603A1/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg&page=2)
5. Preisig D, Puchkov M, Huwyler J, Varum FJO, Gonzalez RCB. *Delayed release pharmaceutical formulation and methods of making and using same [Internet]*. US10391061B2, 2019 [cited **2024**]. Available from: [https://patents.google.com/patent/US10391061B2/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg](https://patents.google.com/patent/US10391061B2/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg)
6. Gerard DE, Schoelkopf J, Gane PAC, Stirnimann T, Alles R, Puchkov M, Huwyler J. *Fast disintegrating solid dosage form formulation comprising functionalized calcium carbonate and method of their manufacture [Internet]*. EP2916816B1, 2019 [cited **2024**]. Available from: [https://patents.google.com/patent/EP2916816B1/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg](https://patents.google.com/patent/EP2916816B1/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg)
7. Wagner-Hattler L, Puchkov M, Huwyler J, MIGUEL LD, Quijano CD, Schoelkopf J. *Dosage form [Internet]*. WO2018011343A1, 2018 [cited **2024**]. Available from: [https://patents.google.com/patent/WO2018011343A1/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg](https://patents.google.com/patent/WO2018011343A1/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg)
8. Preisig D, Puchkov M, Huwyler J, Oliveira Varum FJ, Bravo Gonzales RC. *Delayed release pharmaceutical formulation containing porous carrier particles for colon targeting*. 9895314, 2018.
9. Huwyler J, Puchkov M. *Abuse deterrent pharmaceutical dosage forms [Internet]*. EP3389639A1, 2018 [cited **2024**]. Available from: [https://patents.google.com/patent/EP3389639A1/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg&page=2](https://patents.google.com/patent/EP3389639A1/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg&page=2)
10. Gerard DE, Schoelkopf J, Gane PAC, Eberle VA, Alles R, Puchkov M, Huwyler J. *Gastroretentive drug formulation and delivery systems and their method of preparation using functionalized calcium carbonate [Internet]*. US9993428B2, 2018 [cited **2024**]. Available from: [https://patents.google.com/patent/US9993428B2/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg](https://patents.google.com/patent/US9993428B2/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg)
11. Atria S, Huwyler J, Puchkov M, Stirnimann T. *Method for the production of a pharmaceutical delivery system [Internet]*. AU2015367524B2, 2018 [cited **2024**]. Available from: [https://patents.google.com/patent/AU2015367524B2/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg](https://patents.google.com/patent/AU2015367524B2/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg)
12. Haenggi R, Rindlisbacher U, Moia F, Mueller M, Huwiler C, Kuhni F, Wermelinger J, Lischewski A, Classen C, Callenbach T, Widmer L, Ducret M. *Apparatuses, systems, and methods for filling a container with a liquid drug [Internet]*. US9089647B2, 2015 [cited **2024**]. Available from: [https://patents.google.com/patent/US9089647B2/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg](https://patents.google.com/patent/US9089647B2/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg)

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13. Dogwiler J, Huwiler C, Michel P. *Liquid drug degassing device and ambulatory infusion system including a degassing device [Internet]*. US9205203B2, 2015 [cited **2024**]. Available from: [https://patents.google.com/patent/US9205203B2/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg&page=1](https://patents.google.com/patent/US9205203B2/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg&page=1)
14. Huwyler J, Schnyder A. *Liposome compositions [Internet]*. US7208174B2, 2007 [cited **2024**]. Available from: [https://patents.google.com/patent/US7208174B2/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg&page=1](https://patents.google.com/patent/US7208174B2/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg&page=1)
15. Haselbeck A, Herting F, Huwyler J, Jarsch M. *Treatment of neurodegenerative disorders [Internet]*. WO2007039436A1, 2007 [cited **2024**]. Available from: [https://patents.google.com/patent/WO2007039436A1/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg](https://patents.google.com/patent/WO2007039436A1/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg)
16. Du-Cuny L, Kansy M, Huwyler J. *Method for crystallization of a weakly acidic and/or weakly basic compound [Internet]*. EP1759750A1, 2007 [cited **2024**]. Available from: [https://patents.google.com/patent/EP1759750A1/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg&page=2](https://patents.google.com/patent/EP1759750A1/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg&page=2)
17. Huwyler J, Jakob-Roetne R, Poli SM. *Prodrugs to d-prolines [Internet]*. HK1076100A1, 2006 [cited **2024**]. Available from: [https://patents.google.com/patent/HK1076100A1/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg&page=1](https://patents.google.com/patent/HK1076100A1/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg&page=1)
18. Huwyler J, Knoflach F, Vieira E, Wichmann J. *Oxazoles as mGluR 1 enhancers [Internet]*. US20040132792A1, 2004 [cited **2024**]. Available from: [https://patents.google.com/patent/US20040132792A1/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg&page=1](https://patents.google.com/patent/US20040132792A1/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg&page=1)
19. Alanine A, Buettelmann B, Fisher H, Neidhart M-PH, Huwyler J, Jaeschke G, Pinard E, Wyler R. *Prodrugs to NMDA receptor ligands [Internet]*. AU2001285894A1, 2002 [cited **2024**]. Available from: [https://patents.google.com/patent/AU2001285894A1/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg&page=2](https://patents.google.com/patent/AU2001285894A1/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg&page=2)
20. Alanine A, Buettelmann B, Fischer H, Neidhart M-P, Huwyler J, Jaeschke G, Pinard E, Wyler R. *Prodrug acid esters of [2-(4-benzyl-3-hydroxy-piperidin-1-yl)-ethansulfonyl]phenol [Internet]*. US20020040037A1, 2002 [cited **2024**]. Available from: [https://patents.google.com/patent/US20020040037A1/en?q=\(Fischer+Huwyler\)&inventor=Alanine&assignee=Buettelmann&oq=Alanine+Buettelmann+Fischer+Huwyler](https://patents.google.com/patent/US20020040037A1/en?q=(Fischer+Huwyler)&inventor=Alanine&assignee=Buettelmann&oq=Alanine+Buettelmann+Fischer+Huwyler)
21. Pardridge WM, Huwyler J. *Transport of liposomes across the blood-brain barrier [Internet]*. WO1998022092A1, 1998 [cited **2024**]. Available from: [https://patents.google.com/patent/WO1998022092A1/en?q=\(Huwyler%2c+Joerg\)&oq=Huwyler%2c+Joerg&page=1](https://patents.google.com/patent/WO1998022092A1/en?q=(Huwyler%2c+Joerg)&oq=Huwyler%2c+Joerg&page=1)