Stefan Willmann

List of Publications by Year
in descending order

73 papers	3,819 citations	147566 31 h-index	128067 60 g-index
74 all docs	74 docs citations	74 times ranked	2733 citing authors

#	Article	IF	Citations
1	Development and Evaluation of a Generic Physiologically Based Pharmacokinetic Model for Children. Clinical Pharmacokinetics, 2006, 45, 1013-1034.	1.6	288
2	Applied Concepts in PBPK Modeling: How to Build a PBPK/PD Model. CPT: Pharmacometrics and Systems Pharmacology, 2016, 5, 516-531.	1.3	232
3	A Physiological Model for the Estimation of the Fraction Dose Absorbed in Humans. Journal of Medicinal Chemistry, 2004, 47, 4022-4031.	2.9	202
4	Development of a Physiology-Based Whole-Body Population Model for Assessing the Influence of Individual Variability on the Pharmacokinetics of Drugs. Journal of Pharmacokinetics and Pharmacodynamics, 2007, 34, 401-431.	0.8	199
5	A Mechanistic Approach for the Scaling of Clearance in Children. Clinical Pharmacokinetics, 2006, 45, 683-704.	1.6	186
6	A Computational Systems Biology Software Platform for Multiscale Modeling and Simulation: Integrating Whole-Body Physiology, Disease Biology, and Molecular Reaction Networks. Frontiers in Physiology, 2011, 2, 4.	1.3	167
7	Physiology-Based Simulations of a Pathological Condition. Clinical Pharmacokinetics, 2008, 47, 743-752.	1.6	144
8	PK-SimÂ®: a physiologically based pharmacokinetic â€˜whole-bodyâ€™ model. Biosilico, 2003, 1, 121-124.	0.5	136
9	Whole body physiologically-based pharmacokinetic models: their use in clinical drug development. Expert Opinion on Drug Metabolism and Toxicology, 2008, 4, 1143-1152.	1.5	133
10	Risk to the Breast-Fed Neonate From Codeine Treatment to the Mother: A Quantitative Mechanistic Modeling Study. Clinical Pharmacology and Therapeutics, 2009, 86, 634-643.	2.3	122
11	From physicochemistry to absorption and distribution: predictive mechanistic modelling and computational tools. Expert Opinion on Drug Metabolism and Toxicology, 2005, 1, 159-168.	1.5	115
12	Evolution of a detailed physiological model to simulate the gastrointestinal transit and absorption process in humans, Part 1: Oral solutions. Journal of Pharmaceutical Sciences, 2011, 100, 5324-5345.	1.6	111
13	A Physiologic Model for Simulating Gastrointestinal Flow and Drug Absorption in Rats. Pharmaceutical Research, 2003, 20, 1766-1771.	1.7	88
14	Gestation-Specific Changes in the Anatomy and Physiology of Healthy Pregnant Women: An Extended Repository of Model Parameters for Physiologically Based Pharmacokinetic Modeling in Pregnancy. Clinical Pharmacokinetics, 2017, 56, 1303-1330.	1.6	81
15	Development of a Whole-Body Physiologically Based Pharmacokinetic Approach to Assess the Pharmacokinetics of Drugs in Elderly Individuals. Clinical Pharmacokinetics, 2016, 55, 1573-1589.	1.6	80
16	Inhalation of a Dry Powder Ciprofloxacin Formulation in Healthy Subjects: A Phase I Study. Clinical Drug Investigation, 2013, 33, 419-427.	1.1	72
17	Development of a Paediatric Population-Based Model of the Pharmacokinetics of Rivaroxaban. Clinical Pharmacokinetics, 2014, 53, 89-102.	1.6	70
18	Evolution of a Detailed Physiological Model to Simulate the Gastrointestinal Transit and Absorption Process in Humans, Part II: Extension to Describe Performance of Solid Dosage Forms. Journal of Pharmaceutical Sciences, 2012, 101, 1267-1280.	1.6	67

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19	Physiologically Based Pharmacokinetic Modeling of Renally Cleared Drugs in Pregnant Women. Clinical Pharmacokinetics, 2017, 56, 1525-1541.	1.6	63
20	Mechanism-based prediction of particle size-dependent dissolution and absorption: Cilostazol pharmacokinetics in dogs. European Journal of Pharmaceutics and Biopharmaceutics, 2010, 76, 83-94.	2.0	62
21	Development of a Physiologically-Based Pharmacokinetic Model for Preterm Neonates: Evaluation with In Vivo Data. Current Pharmaceutical Design, 2015, 21, 5688-5698.	0.9	59
22	Dynamically simulating the interaction of midazolam and the CYP3A4 inhibitor itraconazole using individual coupled whole-body physiologically-based pharmacokinetic (WB-PBPK) models. Theoretical Biology and Medical Modelling, 2007, 4, 13.	2.1	55
23	First dose in children: physiological insights into pharmacokinetic scaling approaches and their implications in paediatric drug development. Journal of Pharmacokinetics and Pharmacodynamics, 2012, 39, 195-203.	0.8	54
24	Rivaroxaban for treatment of pediatric venous thromboembolism. An Einsteinâ€Jr phase 3 doseâ€exposureâ€response evaluation. Journal of Thrombosis and Haemostasis, 2020, 18, 1672-1685.	1.9	52
25	Integrated Population Pharmacokinetic Analysis of Rivaroxaban Across Multiple Patient Populations. CPT: Pharmacometrics and Systems Pharmacology, 2018, 7, 309-320.	1.3	51
26	Bodyweight-adjusted rivaroxaban for children with venous thromboembolism (EINSTEIN-Jr): results from three multicentre, single-arm, phase 2 studies. Lancet Haematology,the, 2019, 6, e500-e509.	2.2	51
27	Development and Validation of a Physiology-based Model for the Prediction of Oral Absorption in Monkeys. Pharmaceutical Research, 2007, 24, 1275-1282.	1.7	45
28	Integration of dissolution into physiologically-based pharmacokinetic models III: PK-SimÂ®. Journal of Pharmacy and Pharmacology, 2012, 64, 997-1007.	1.2	43
29	Using Bayesian-PBPK modeling for assessment of inter-individual variability and subgroup stratification. In Silico Pharmacology, 2013, 1, 6.	1.8	41
30	Pharmacokinetics of rivaroxaban in children using physiologically based and population pharmacokinetic modelling: an EINSTEIN-Jr phase I study. Thrombosis Journal, 2018, 16, 32.	0.9	40
31	Pharmacogenomics of Codeine, Morphine, and Morphine-6-Glucuronide. Molecular Diagnosis and Therapy, 2012, 16, 43-53.	1.6	33
32	Physiology-based pharmacokinetic modeling: ready to be used. Drug Discovery Today: Technologies, 2004, 1, 449-456.	4.0	32
33	Utilizing In Vitro and PBPK Tools to Link ADME Characteristics to Plasma Profiles: Case Example Nifedipine Immediate Release Formulation. Journal of Pharmaceutical Sciences, 2013, 102, 3205-3219.	1.6	32
34	Physiologically based pharmacokinetic modelling of high- and low-dose etoposide: from adults to children. Cancer Chemotherapy and Pharmacology, 2012, 69, 397-405.	1.1	31
35	Evaluation of changes in oral drug absorption in preterm and term neonates for Biopharmaceutics Classification System (BCS) class I and II compounds. British Journal of Clinical Pharmacology, 2016, 81, 137-147.	1.1	31
36	Physiologically based pharmacokinetic modeling of tamoxifen and its metabolites in women of different CYP2D6 phenotypes provides new insight into the tamoxifen mass balance. Frontiers in Pharmacology, 2012, 3, 92.	1.6	30

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37	Physiology-based versus allometric scaling of clearance in children; an eliminating process based comparison. Paediatric and Perinatal Drug Therapy, 2006, 7, 146-153.	0.6	30
38	Exploratory evaluation of pharmacodynamics, pharmacokinetics and safety of rivaroxaban in children and adolescents: an EINSTEIN-Jr phase I study. Thrombosis Journal, 2018, 16, 31.	0.9	29
39	Analysis of Nifedipine Absorption from Soft Gelatin Capsules Using PBPK Modeling and Biorelevant Dissolution Testing. Journal of Pharmaceutical Sciences, 2010, 99, 2899-2904.	1.6	26
40	A Physiologically-Based Pharmacokinetic Model to Describe Ciprofloxacin Pharmacokinetics Over the Entire Span of Life. Clinical Pharmacokinetics, 2018, 57, 1613-1634.	1.6	25
41	Whole-body physiologically based pharmacokinetic population modelling of oral drug administration: inter-individual variability of cimetidine absorption. Journal of Pharmacy and Pharmacology, 2010, 61, 891-899.	1.2	24
42	Physiology-based pharmacokinetic modeling: ready to be used. Drug Discovery Today: Technologies, 2005, 2, 125-132.	4.0	23
43	Predictive Pediatric Modeling and Simulation Using Ontogeny Information. Journal of Clinical Pharmacology, 2019, 59, S95-S103.	1.0	23
44	PK/PD modeling of FXI antisense oligonucleotides to bridge the doseâ€FXI activity relation from healthy volunteers to endâ€stage renal disease patients. CPT: Pharmacometrics and Systems Pharmacology, 2021, 10, 890-901.	1.3	22
45	Applications of Physiologically Based Pharmacokinetic Modeling of Rivaroxabanâ€"Renal and Hepatic Impairment and Drugâ€Drug Interaction Potential. Journal of Clinical Pharmacology, 2021, 61, 656-665.	1.0	21
46	Glucose Quantification in Dried-down Nanoliter Samples Using Mid-Infrared Attenuated Total Reflection Spectroscopy. Applied Spectroscopy, 2004, 58, 442-450.	1.2	20
47	An update on computational oral absorption simulation. Expert Opinion on Drug Metabolism and Toxicology, 2011, 7, 1345-1364.	1.5	20
48	Moxifloxacin in Pediatric Patients With Complicated Intra-abdominal Infections. Pediatric Infectious Disease Journal, 2018, 37, e207-e213.	1.1	20
49	Defining the Role of Macrophages in Local Moxifloxacin Tissue Concentrations using Biopsy Data and Whole-Body Physiologically Based Pharmacokinetic Modelling. Clinical Pharmacokinetics, 2009, 48, 181-187.	1.6	18
50	Application of Physiologicallyâ€Based and Population Pharmacokinetic Modeling for Dose Finding and Confirmation During the Pediatric Development of Moxifloxacin. CPT: Pharmacometrics and Systems Pharmacology, 2019, 8, 654-663.	1.3	18
51	Application of physiology-based pharmacokinetic and pharmacodynamic modeling to individualized target-controlled propofol infusions. Advances in Therapy, 2006, 23, 143-158.	1.3	17
52	Pharmacogenomics of codeine, morphine, and morphine-6-glucuronide: model-based analysis of the influence of CYP2D6 activity, UGT2B7 activity, renal impairment, and CYP3A4 inhibition. Molecular Diagnosis and Therapy, 2012, 16, 43-53.	1.6	17
53	Associations between model-predicted rivaroxaban exposure and patient characteristics and efficacy and safety outcomes in patients with non-valvular atrial fibrillation. Journal of Thrombosis and Thrombolysis, 2020, 50, 20-29.	1.0	14
54	A Detailed Physiologically Based Model to Simulate the Pharmacokinetics and Hormonal Pharmacodynamics of Enalapril on the Circulating Endocrine Renin-Angiotensin-Aldosterone System. Frontiers in Physiology, 2013, 4, 4.	1.3	13

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55	Prediction of a potentially effective dose in humans for BAY 60â€“5521, a potent inhibitor of cholesteryl ester transfer protein (CETP) by allometric species scaling and combined pharmacodynamic and physiologicallyâ€based pharmacokinetic modelling. British Journal of Clinical Pharmacology, 2012, 73, 219-231.	1.1	12
56	Concomitant use of tamoxifen and endoxifen in postmenopausal early breast cancer: prediction of plasma levels by physiologically-based pharmacokinetic modeling. SpringerPlus, 2014, 3, 285.	1.2	12
57	Pharmacokinetics, Safety, and Tolerability of Singleâ€Dose Intravenous Moxifloxacin in Pediatric Patients: Dose Optimization in a Phase 1 Study. Journal of Clinical Pharmacology, 2019, 59, 654-667.	1.0	12
58	Predictive Performance of Physiologyâ€Based Pharmacokinetic Dose Estimates for Pediatric Trials: Evaluation With 10 Bayer Smallâ€Molecule Compounds in Children. Journal of Clinical Pharmacology, 2021, 61, S70-S82.	1.0	11
59	Associations between model-predicted rivaroxaban exposure and patient characteristics and efficacy and safety outcomes in the treatment of venous thromboembolism. Journal of Thrombosis and Thrombolysis, 2020, 50, 1-11.	1.0	10
60	Whole-body physiologically based pharmacokinetic population modelling of oral drug administration: inter-individual variability of cimetidine absorption. Journal of Pharmacy and Pharmacology, 2009, 61, 891-899.	1.2	10
61	Enhancing the Quality of Rivaroxaban Exposure Estimates Using Prothrombin Time in the Absence of Pharmacokinetic Sampling. CPT: Pharmacometrics and Systems Pharmacology, 2019, 8, 805-814.	1.3	9
62	Pharmacodynamics, Pharmacokinetics and Safety of Bay 1093884, an Antibody Directed Against Human TFPI, in Patients with Factor VIII or IX Deficiency (With and Without Inhibitors): A Phase 1 Study. Blood, 2018, 132, 1176-1176.	0.6	8
63	Population pharmacokinetic analysis of rivaroxaban in children and comparison to prospective physiologicallyâ€based pharmacokinetic predictions. CPT: Pharmacometrics and Systems Pharmacology, 2021, 10, 1195-1207.	1.3	7
64	Dosing Regimen Prediction and Confirmation With Rivaroxaban for Thromboprophylaxis in Children After the Fontan Procedure: Insights From the Phase III UNIVERSE Study. Journal of Clinical Pharmacology, 2022, 62, 220-231.	1.0	7
65	Small-volume frequency-domain oximetry: phantom experiments and first in vivo results. Journal of Biomedical Optics, 2003, 8, 618.	1.4	6
66	Influence of model-predicted rivaroxaban exposure and patient characteristics on efficacy and safety outcomes in patients with acute coronary syndrome. Therapeutic Advances in Cardiovascular Disease, 2019, 13, 175394471986364.	1.0	6
67	Associations between model-predicted rivaroxaban exposure and patient characteristics and efficacy and safety outcomes in the prevention of venous thromboembolism. Journal of Thrombosis and Thrombolysis, 2020, 50, 12-19.	1.0	6
68	Clinical investigation of the biopharmaceutical characteristics of nifurtimox tablets â€“ Implications for quality control and application. European Journal of Pharmaceutical Sciences, 2021, 166, 105940.	1.9	6
69	Comparing Predictions of a PBPK Model for Cyclosporine With Drug Levels From Therapeutic Drug Monitoring. Frontiers in Pharmacology, 2021, 12, 630904.	1.6	5
70	Riociguat for the treatment of Phe508del homozygous adults with cystic fibrosis. Journal of Cystic Fibrosis, 2021, 20, 1018-1025.	0.3	5
71	Addressing Adherence Using Genotype-Specific PBPK Modelingâ€”Impact of Drug Holidays on Tamoxifen and Endoxifen Plasma Levels. Frontiers in Pharmacology, 2017, 8, 67.	1.6	3
72	Modelâ€informed bridging of rivaroxaban doses for thromboprophylaxis in pediatric patients aged 9â€‰years and older with congenital heart disease. CPT: Pharmacometrics and Systems Pharmacology, 2022, 11, 1111-1121.	1.3	3

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73	Comment on model-based meta-analysis to evaluate optimal doses of direct oral factor Xa inhibitors in atrial fibrillation patients. Blood Advances, 2018, 2, 3193-3195.	2.5	0