

Lars Kuepfer

List of Publications by Year in descending order

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Version: 2024-02-01

59
papers

3,464
citations

186265

28
h-index

144013

57
g-index

64
all docs

64
docs citations

64
times ranked

4054
citing authors

#	ARTICLE	IF	CITATIONS
1	Systematic evaluation of objective functions for predicting intracellular fluxes in <i>Escherichia coli</i> . <i>Molecular Systems Biology</i> , 2007, 3, 119.	7.2	623
2	Large-scale ¹³ C-flux analysis reveals mechanistic principles of metabolic network robustness to null mutations in yeast. <i>Genome Biology</i> , 2005, 6, R49.	9.6	274
3	Applied Concepts in PBPK Modeling: How to Build a PBPK/PD Model. <i>CPT: Pharmacometrics and Systems Pharmacology</i> , 2016, 5, 516-531.	2.5	232
4	Ensemble modeling for analysis of cell signaling dynamics. <i>Nature Biotechnology</i> , 2007, 25, 1001-1006.	17.5	214
5	Metabolic functions of duplicate genes in <i>Saccharomyces cerevisiae</i> . <i>Genome Research</i> , 2005, 15, 1421-1430.	5.5	208
6	A Computational Systems Biology Software Platform for Multiscale Modeling and Simulation: Integrating Whole-Body Physiology, Disease Biology, and Molecular Reaction Networks. <i>Frontiers in Physiology</i> , 2011, 2, 4.	2.8	167
7	Integrating Cellular Metabolism into a Multiscale Whole-Body Model. <i>PLoS Computational Biology</i> , 2012, 8, e1002750.	3.2	112
8	Model-guided identification of a therapeutic strategy to reduce hyperammonemia in liver diseases. <i>Journal of Hepatology</i> , 2016, 64, 860-871.	3.7	110
9	A Systematic Evaluation of the Use of Physiologically Based Pharmacokinetic Modeling for Cross-Species Extrapolation. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 191-206.	3.3	99
10	Bile Microinfarcts in Cholestasis Are Initiated by Rupture of the Apical Hepatocyte Membrane and Cause Shunting of Bile to Sinusoidal Blood. <i>Hepatology</i> , 2019, 69, 666-683.	7.3	89
11	Prediction of human drug-induced liver injury (DILI) in relation to oral doses and blood concentrations. <i>Archives of Toxicology</i> , 2019, 93, 1609-1637.	4.2	86
12	Using Expression Data for Quantification of Active Processes in Physiologically Based Pharmacokinetic Modeling. <i>Drug Metabolism and Disposition</i> , 2012, 40, 892-901.	3.3	81
13	Enabling multiscale modeling in systems medicine. <i>Genome Medicine</i> , 2014, 6, 21.	8.2	76
14	In vivo imaging of systemic transport and elimination of xenobiotics and endogenous molecules in mice. <i>Archives of Toxicology</i> , 2017, 91, 1335-1352.	4.2	64
15	A generic whole body physiologically based pharmacokinetic model for therapeutic proteins in PK-Sim. <i>Journal of Pharmacokinetics and Pharmacodynamics</i> , 2018, 45, 235-257.	1.8	60
16	Physiologically-based modelling in mice suggests an aggravated loss of clearance capacity after toxic liver damage. <i>Scientific Reports</i> , 2017, 7, 6224.	3.3	57
17	Spatio-temporal visualization of the distribution of acetaminophen as well as its metabolites and adducts in mouse livers by MALDI MSI. <i>Archives of Toxicology</i> , 2018, 92, 2963-2977.	4.2	51
18	Whither systems medicine?. <i>Experimental and Molecular Medicine</i> , 2018, 50, e453-e453.	7.7	49

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19	Efficient classification of complete parameter regions based on semidefinite programming. <i>BMC Bioinformatics</i> , 2007, 8, 12.	2.6	47
20	Representative Sinusoids for Hepatic Four-Scale Pharmacokinetics Simulations. <i>PLoS ONE</i> , 2015, 10, e0133653.	2.5	47
21	Using Bayesian-PBPK modeling for assessment of inter-individual variability and subgroup stratification. <i>In Silico Pharmacology</i> , 2013, 1, 6.	3.3	41
22	Spatio-Temporal Simulation of First Pass Drug Perfusion in the Liver. <i>PLoS Computational Biology</i> , 2014, 10, e1003499.	3.2	41
23	The virtual liver: state of the art and future perspectives. <i>Archives of Toxicology</i> , 2014, 88, 2071-2075.	4.2	41
24	A Physiologically Based Pharmacokinetic Model of Isoniazid and Its Application in Individualizing Tuberculosis Chemotherapy. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 6134-6145.	3.2	40
25	Zonated quantification of steatosis in an entire mouse liver. <i>Computers in Biology and Medicine</i> , 2016, 73, 108-118.	7.0	39
26	Bayesian Population Physiologically-Based Pharmacokinetic (PBPK) Approach for a Physiologically Realistic Characterization of Interindividual Variability in Clinically Relevant Populations. <i>PLoS ONE</i> , 2015, 10, e0139423.	2.5	37
27	A Mechanistic, Model-Based Approach to Safety Assessment in Clinical Development. <i>CPT: Pharmacometrics and Systems Pharmacology</i> , 2012, 1, 1-8.	2.5	36
28	Evaluation of the Efficacy and Safety of Rivaroxaban Using a Computer Model for Blood Coagulation. <i>PLoS ONE</i> , 2011, 6, e17626.	2.5	32
29	Metabolic flux distributions: genetic information, computational predictions, and experimental validation. <i>Applied Microbiology and Biotechnology</i> , 2010, 86, 1243-1255.	3.6	29
30	Integration of genome-scale metabolic networks into whole-body PBPK models shows phenotype-specific cases of drug-induced metabolic perturbation. <i>Npj Systems Biology and Applications</i> , 2018, 4, 10.	3.0	28
31	Bringing in vitro analysis closer to in vivo: Studying doxorubicin toxicity and associated mechanisms in 3D human microtissues with PBPK-based dose modelling. <i>Toxicology Letters</i> , 2018, 294, 184-192.	0.8	28
32	Network integration and modelling of dynamic drug responses at multi-omics levels. <i>Communications Biology</i> , 2020, 3, 573.	4.4	28
33	Towards whole-body systems physiology. <i>Molecular Systems Biology</i> , 2010, 6, 409.	7.2	26
34	Computational Models for Clinical Applications in Personalized Medicine—Guidelines and Recommendations for Data Integration and Model Validation. <i>Journal of Personalized Medicine</i> , 2022, 12, 166.	2.5	24
35	A model-based assay design to reproduce in vivo patterns of acute drug-induced toxicity. <i>Archives of Toxicology</i> , 2018, 92, 553-555.	4.2	23
36	Multiscale Mechanistic Modeling in Pharmaceutical Research and Development. <i>Advances in Experimental Medicine and Biology</i> , 2012, 736, 543-561.	1.6	20

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37	Clinical Translation in the Virtual Liver Network. <i>CPT: Pharmacometrics and Systems Pharmacology</i> , 2014, 3, 1-4.	2.5	18
38	Model-based contextualization of in vitro toxicity data quantitatively predicts in vivo drug response in patients. <i>Archives of Toxicology</i> , 2017, 91, 865-883.	4.2	16
39	Using quantitative systems pharmacology to evaluate the drug efficacy of COX-2 and 5-LOX inhibitors in therapeutic situations. <i>Npj Systems Biology and Applications</i> , 2018, 4, 28.	3.0	15
40	A workflow to build PBTK models for novel species. <i>Archives of Toxicology</i> , 2020, 94, 3847-3860.	4.2	15
41	Subcellular spatio-temporal intravital kinetics of aflatoxin B1 and ochratoxin A in liver and kidney. <i>Archives of Toxicology</i> , 2021, 95, 2163-2177.	4.2	15
42	Translational learning from clinical studies predicts drug pharmacokinetics across patient populations. <i>Npj Systems Biology and Applications</i> , 2017, 3, 11.	3.0	14
43	Data-driven personalization of a physiologically based pharmacokinetic model for caffeine: A systematic assessment. <i>CPT: Pharmacometrics and Systems Pharmacology</i> , 2021, 10, 782-793.	2.5	13
44	Development of a Physiologically Based Computational Kidney Model to Describe the Renal Excretion of Hydrophilic Agents in Rats. <i>Frontiers in Physiology</i> , 2012, 3, 494.	2.8	11
45	A Physiology-Based Model of Human Bile Acid Metabolism for Predicting Bile Acid Tissue Levels After Drug Administration in Healthy Subjects and BRIC Type 2 Patients. <i>Frontiers in Physiology</i> , 2019, 10, 1192.	2.8	10
46	A Comparative Analysis of Drug-Induced Hepatotoxicity in Clinically Relevant Situations. <i>PLoS Computational Biology</i> , 2017, 13, e1005280.	3.2	10
47	Algorithmic surveillance of ICU patients with acute respiratory distress syndrome (ASIC): protocol for a multicentre stepped-wedge cluster randomised quality improvement strategy. <i>BMJ Open</i> , 2021, 11, e045589.	1.9	9
48	A multiscale, model-based analysis of the multi-tissue interplay underlying blood glucose regulation in type I diabetes. , 2016, 2016, 1417-1421.		8
49	Multiscale modeling reveals inhibitory and stimulatory effects of caffeine on acetaminophen-induced toxicity in humans. <i>CPT: Pharmacometrics and Systems Pharmacology</i> , 2017, 6, 136-146.	2.5	8
50	Quantitative systems pharmacology of interferon alpha administration: A multi-scale approach. <i>PLoS ONE</i> , 2019, 14, e0209587.	2.5	7
51	Modeling approaches for hepatic spatial heterogeneity in pharmacokinetic simulations. <i>Drug Discovery Today: Disease Models</i> , 2016, 22, 35-43.	1.2	6
52	Systems Medicine in Pharmaceutical Research and Development. <i>Methods in Molecular Biology</i> , 2016, 1386, 87-104.	0.9	6
53	Early prediction of decompensation (EPOD) score: Non-invasive determination of cirrhosis decompensation risk. <i>Liver International</i> , 2022, 42, 640-650.	3.9	6
54	Modeling and Simulation of In Vivo Drug Effects. <i>Handbook of Experimental Pharmacology</i> , 2015, 232, 313-329.	1.8	5

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55	Towards knowledge-driven cross-species extrapolation. Drug Discovery Today: Disease Models, 2016, 22, 21-26.	1.2	3
56	A Model-Based Workflow to Benchmark the Clinical Cholestasis Risk of Drugs. Clinical Pharmacology and Therapeutics, 2021, 110, 1293-1301.	4.7	3
57	Stoichiometric Modelling of Microbial Metabolism. Methods in Molecular Biology, 2014, 1191, 3-18.	0.9	3
58	Editorial overview: Systems biology approaches in pharmacology and drug discovery. Current Opinion in Systems Biology, 2017, 4, vii-ix.	2.6	0
59	PBPK Modelling of Intracellular Drug Delivery Through Active and Passive Transport Processes. Fundamental Biomedical Technologies, 2016, , 363-374.	0.2	0