Frederic Y Bois

List of Publications by Citations

137 papers	4,717 citations	40 h-index	64 g-index
150 ext. papers	5,346 ext. citations	4 avg, IF	5.37 L-index

#	Paper	IF	Citations
137	Alternative (non-animal) methods for cosmetics testing: current status and future prospects-2010. *Archives of Toxicology*, **2011**, 85, 367-485	5.8	398
136	Physiological Pharmacokinetic Analysis Using Population Modeling and Informative Prior Distributions. *Journal of the American Statistical Association*, **1996**, 91, 1400-1412	2.8	249
135	Adverse outcome pathways: opportunities, limitations and open questions. *Archives of Toxicology*, **2017**, 91, 3477-3505	5.8	174
134	Application of integrated transcriptomic, proteomic and metabolomic profiling for the delineation of mechanisms of drug induced cell stress. *Journal of Proteomics*, **2013**, 79, 180-94	3.9	138
133	PBPK modelling of inter-individual variability in the pharmacokinetics of environmental chemicals. *Toxicology*, **2010**, 278, 256-67	4.4	137
132	Metabolomics in toxicology and preclinical research. *ALTEX: Alternatives To Animal Experimentation*, **2013**, 30, 209-25	4.3	135
131	Characterizing uncertainty and variability in physiologically based pharmacokinetic models: state of the science and needs for research and implementation. *Toxicological Sciences*, **2007**, 99, 395-402	4.4	102
130	GNU MCSim: Bayesian statistical inference for SBML-coded systems biology models. *Bioinformatics*, **2009**, 25, 1453-4	7.2	94
129	Statistical issues in toxicokinetic modeling: a bayesian perspective. *Environmental Health Perspectives*, **2000**, 108 Suppl 5, 883-93	8.4	93
128	Toxicokinetics as a key to the integrated toxicity risk assessment based primarily on non-animal approaches. *Toxicology in Vitro*, **2013**, 27, 1570-7	3.6	92
127	Addressing human variability in next-generation human health risk assessments of environmental chemicals. *Environmental Health Perspectives*, **2013**, 121, 23-31	8.4	87
126	PBTK modelling platforms and parameter estimation tools to enable animal-free risk assessment: recommendations from a joint EPAA--EURL ECVAM ADME workshop. *Regulatory Toxicology and Pharmacology*, **2014**, 68, 119-39	3.4	85
125	Precision and sensitivity of pharmacokinetic models for cancer risk assessment: tetrachloroethylene in mice, rats, and humans. *Toxicology and Applied Pharmacology*, **1990**, 102, 300-15	4.6	81
124	Development of good modelling practice for physiologically based pharmacokinetic models for use in risk assessment: the first steps. *Regulatory Toxicology and Pharmacology*, **2008**, 50, 400-11	3.4	80
123	Joint modeling of survival and longitudinal non-survival data: current methods and issues. Report of the DIA Bayesian joint modeling working group. *Statistics in Medicine*, **2015**, 34, 2181-95	2.3	79
122	Mechanism of cisplatin proximal tubule toxicity revealed by integrating transcriptomics, proteomics, metabolomics and biokinetics. *Toxicology in Vitro*, **2015**, 30, 117-27	3.6	78
121	Toxicokinetic models and related tools in environmental risk assessment of chemicals. *Science of the Total Environment*, **2017**, 578, 1-15	10.2	72

120	Development of new technique for risk assessment using physiologically based toxicokinetic models. *American Journal of Industrial Medicine*, **1999**, 36, 101-103	2.7	72
119	Population toxicokinetics of tetrachloroethylene. *Archives of Toxicology*, **1996**, 70, 347-55	5.8	69
118	Statistical analysis of Clewell et al. PBPK model of trichloroethylene kinetics. *Environmental Health Perspectives*, **2000**, 108 Suppl 2, 307-16	8.4	64
117	Development of a physiologically based kinetic model for 99m-technetium-labelled carbon nanoparticles inhaled by humans. *Inhalation Toxicology*, **2009**, 21, 1099-107	2.7	63
116	Bioequivalence: performance of several measures of rate of absorption. *Pharmaceutical Research*, **1994**, 11, 966-74	4.5	61
115	The Next Generation of Risk Assessment Multi-Year Study-Highlights of Findings, Applications to Risk Assessment, and Future Directions. *Environmental Health Perspectives*, **2016**, 124, 1671-1682	8.4	59
114	Bayesian-Optimal Design via Interacting Particle Systems. *Journal of the American Statistical Association*, **2006**, 101, 773-785	2.8	58
113	Meeting report: moving upstream-evaluating adverse upstream end points for improved risk assessment and decision-making. *Environmental Health Perspectives*, **2008**, 116, 1568-75	8.4	56
112	Modeling benzene pharmacokinetics across three sets of animal data: parametric sensitivity and risk implications. *Risk Analysis*, **1991**, 11, 641-54	3.9	54
111	First pass intestinal and liver metabolism of paracetamol in a microfluidic platform coupled with a mathematical modeling as a means of evaluating ADME processes in humans. *Biotechnology and Bioengineering*, **2014**, 111, 2027-40	4.9	53
110	Bioequivalence: performance of several measures of extent of absorption. *Pharmaceutical Research*, **1994**, 11, 715-22	4.5	53
109	Comparison of three physiologically based pharmacokinetic models of benzene disposition. *Toxicology and Applied Pharmacology*, **1991**, 110, 79-88	4.6	51
108	Predictive toxicology using systemic biology and liver microfluidic "on chip" approaches: application to acetaminophen injury. *Toxicology and Applied Pharmacology*, **2012**, 259, 270-80	4.6	49
107	Structure and parameterization of pharmacokinetic models: their impact on model predictions. *Risk Analysis*, **1992**, 12, 189-201	3.9	48
106	Physiologically-based Kinetic Modelling (PBK Modelling): meeting the 3Rs agenda. The report and recommendations of ECVAM Workshop 63. *ATLA Alternatives To Laboratory Animals*, **2007**, 35, 661-71	2.1	46
105	Interspecies extrapolation: a reexamination of acute toxicity data. *Risk Analysis*, **1992**, 12, 301-10	3.9	46
104	Physiological Pharmacokinetic Analysis Using Population Modeling and Informative Prior Distributions		46
103	Ab initio chemical safety assessment: A workflow based on exposure considerations and non-animal methods. *Computational Toxicology*, **2017**, 4, 31-44	3.1	45

102	Dynamic modeling of bacteria in a pilot drinking-water distribution system. *Water Research*, **1997**, 31, 3146-3156	12.5	44
101	Statistical analysis of Fisher et al. PBPK model of trichloroethylene kinetics. *Environmental Health Perspectives*, **2000**, 108 Suppl 2, 275-82	8.4	43
100	Absorption rate vs. exposure: which is more useful for bioequivalence testing?. *Pharmaceutical Research*, **1996**, 13, 453-6	4.5	43
99	MCSim: A Monte Carlo Simulation Program. *Journal of Statistical Software*, **1997**, 2,	7.3	40
98	Bacterial inoculum density and probability of para-nitrophenol biodegradability test response. *Ecotoxicology and Environmental Safety*, **1995**, 30, 274-82	7	39
97	Analysis of PBPK models for risk characterization. *Annals of the New York Academy of Sciences*, **1999**, 895, 317-37	6.5	37
96	Modeling human interindividual variability in metabolism and risk: the example of 4-aminobiphenyl. *Risk Analysis*, **1995**, 15, 205-13	3.9	37
95	Toxicokinetics of inhaled trichloroethylene and tetrachloroethylene in humans at 1 ppm: empirical results and comparisons with previous studies. *Toxicological Sciences*, **2007**, 95, 23-36	4.4	35
94	Mechanisms of benzene carcinogenesis: application of a physiological model of benzene pharmacokinetics and metabolism. *Toxicology Letters*, **1991**, 56, 283-98	4.4	34
93	Multiscale modelling approach combining a kinetic model of glutathione metabolism with PBPK models of paracetamol and the potential glutathione-depletion biomarkers ophthalmic acid and 5-oxoproline in humans and rats. *Integrative Biology (United Kingdom)*, **2013**, 5, 877-88	3.7	30
92	Systems biology modeling of omics data: effect of cyclosporine a on the Nrf2 pathway in human renal cells. *BMC Systems Biology*, **2014**, 8, 76	3.5	30
91	Physiologically based modelling and prediction of drug interactions. *Basic and Clinical Pharmacology and Toxicology*, **2010**, 106, 154-61	3.1	29
90	Bayesian analysis of an epidemiologic model of Plasmodium falciparum malaria infection in Ndiop, Senegal. *American Journal of Epidemiology*, **2000**, 152, 760-70	3.8	29
89	Optimal design for a study of butadiene toxicokinetics in humans. *Toxicological Sciences*, **1999**, 49, 213-24	4.4	29
88	Applying a Global Sensitivity Analysis Workflow to Improve the Computational Efficiencies in Physiologically-Based Pharmacokinetic Modeling. *Frontiers in Pharmacology*, **2018**, 9, 588	5.6	28
87	Low-dose metabolism of benzene in humans: science and obfuscation. *Carcinogenesis*, **2013**, 34, 2-9	4.6	28
86	Lumping in pharmacokinetics. *Journal of Pharmacokinetics and Pharmacodynamics*, **2005**, 32, 719-36	2.7	28
85	Physiologically based pharmacokinetic modeling of inhalation exposure of humans to dichloromethane during moderate to heavy exercise. *Toxicological Sciences*, **2001**, 59, 209-18	4.4	28

84	In vitro kinetics of amiodarone and its major metabolite in two human liver cell models after acute and repeated treatments. *Toxicology in Vitro*, **2015**, 30, 36-51	3.6	27
83	Development of an in vitro renal epithelial disease state model for xenobiotic toxicity testing. *Toxicology in Vitro*, **2015**, 30, 128-37	3.6	27
82	Development of a physiologically based toxicokinetic model for butadiene and four major metabolites in humans: global sensitivity analysis for experimental design issues. *Chemico-Biological Interactions*, **2007**, 167, 168-83	5	27
81	Applications of population approaches in toxicology. *Toxicology Letters*, **2001**, 120, 385-94	4.4	26
80	Optimization issues in physiological toxicokinetic modeling: a case study with benzene. *Toxicology Letters*, **1993**, 69, 181-96	4.4	26
79	Understanding the biokinetics of ibuprofen after single and repeated treatments in rat and human in vitro liver cell systems. *Toxicology Letters*, **2015**, 233, 172-86	4.4	25
78	Evaluation of a liver microfluidic biochip to predict in vivo clearances of seven drugs in rats. *Journal of Pharmaceutical Sciences*, **2014**, 103, 706-18	3.9	25
77	An analysis of exposure rate effects for benzene using a physiologically based pharmacokinetic model. *Regulatory Toxicology and Pharmacology*, **1992**, 15, 122-36	3.4	24
76	Investigation of omeprazole and phenacetin first-pass metabolism in humans using a microscale bioreactor and pharmacokinetic models. *Biopharmaceutics and Drug Disposition*, **2015**, 36, 275-93	1.7	23
75	Assessing the reliability of PBPK models using data from methyl chloride-exposed, non-conjugating human subjects. *Archives of Toxicology*, **2001**, 75, 189-99	5.8	23
74	Application of three approaches for quantitative AOP development to renal toxicity. *Computational Toxicology*, **2019**, 11, 1-13	3.1	23
73	Zonation related function and ubiquitination regulation in human hepatocellular carcinoma cells in dynamic vs. static culture conditions. *BMC Genomics*, **2012**, 13, 54	4.5	21
72	Multiscale modelling approaches for assessing cosmetic ingredients safety. *Toxicology*, **2017**, 392, 130-139	4.1	20
71	Quantitative in vitro to in vivo extrapolation of tissues toxicity. *Toxicology in Vitro*, **2015**, 30, 203-16	3.6	18
70	Interspecies extrapolation of physiological pharmacokinetic parameter distributions. *Risk Analysis*, **1996**, 16, 741-54	3.9	18
69	A mechanistic modeling framework for predicting metabolic interactions in complex mixtures. *Environmental Health Perspectives*, **2011**, 119, 1712-8	8.4	17
68	Phleum pratense pollen starch granules induce humoral and cell-mediated immune responses in a rat model of allergy. *Clinical and Experimental Allergy*, **2004**, 34, 310-4	4.1	17
67	A Bayesian compartmental model for the evaluation of 1,3-butadiene metabolism. *Journal of the Royal Statistical Society Series C: Applied Statistics*, **2003**, 52, 291-305	1.5	17

66	Environmental benzene exposure assessment for parent-child pairs in Rouen, France. *Science of the Total Environment*, **2003**, 308, 73-82	10.2	16
65	Statistical Issues in Toxicokinetic Modeling: A Bayesian Perspective. *Environmental Health Perspectives*, **2000**, 108, 883	8.4	16
64	Pentachlorophenol carcinogenicity: extrapolation of risk from mice to humans. *Human and Experimental Toxicology*, **1993**, 12, 215-25	3.4	15
63	Assessment of pentachlorophenol exposure in humans using the clearance concept. *Human and Experimental Toxicology*, **1992**, 11, 17-26	3.4	15
62	Placental transfer of xenobiotics in pregnancy physiologically-based pharmacokinetic models: Structure and data. *Computational Toxicology*, **2019**, 12, 100111	3.1	14
61	Considerations and Caveats when Applying Global Sensitivity Analysis Methods to Physiologically Based Pharmacokinetic Models. *AAPS Journal*, **2020**, 22, 93	3.7	14
60	Integration of pharmacokinetic and NRF2 system biology models to describe reactive oxygen species production and subsequent glutathione depletion in liver microfluidic biochips after flutamide exposure. *Toxicology in Vitro*, **2014**, 28, 1230-41	3.6	13
59	Evaluation of antiangiogenic treatment effects on tumorsℝmicrocirculation by Bayesian physiological pharmacokinetic modeling and magnetic resonance imaging. *Magnetic Resonance Imaging*, **2006**, 24, 1059-67	3.3	13
58	Development of new technique for risk assessment using physiologically based toxicokinetic models. *American Journal of Industrial Medicine*, **1999**, Suppl 1, 101-3	2.7	13
57	Investigation of acetaminophen toxicity in HepG2/C3a microscale cultures using a system biology model of glutathione depletion. *Cell Biology and Toxicology*, **2015**, 31, 173-85	7.4	12
56	A group sequential approach to crossover trials for average bioequivalence. *Journal of Biopharmaceutical Statistics*, **1997**, 7, 87-96	1.3	12
55	A parametric approach to population bioequivalence. *Statistics in Medicine*, **1997**, 16, 441-54	2.3	12
54	The application of a Bayesian approach to the analysis of a complex, mechanistically based model. *Journal of Biopharmaceutical Statistics*, **2007**, 17, 65-92	1.3	12
53	Intratracheal instillation of cytoplasmic granules from Phleum pratense pollen induces IgE- and cell-mediated responses in the Brown Norway rat. *International Archives of Allergy and Immunology*, **2004**, 135, 24-9	3.7	12
52	Genetic and dietary factors affecting human metabolism of 1,3-butadiene. *Chemico-Biological Interactions*, **2001**, 135-136, 407-28	5	12
51	Population Toxicokinetics of Benzene. *Environmental Health Perspectives*, **1996**, 104, 1405	8.4	12
50	A computational model to predict rat ovarian steroid secretion from in vitro experiments with endocrine disruptors. *PLoS ONE*, **2013**, 8, e53891	3.7	12
49	Investigation of ifosfamide and chloroacetaldehyde renal toxicity through integration of in vitro liver-kidney microfluidic data and pharmacokinetic-system biology models. *Journal of Applied Toxicology*, **2016**, 36, 330-9	4.1	12

48	Investigation of Nrf2, AhR and ATF4 Activation in Toxicogenomic Databases. *Frontiers in Genetics*, **2018**, 9, 429	4.5	12
47	Prediction of maternal and foetal exposures to perfluoroalkyl compounds in a Spanish birth cohort using toxicokinetic modelling. *Toxicology and Applied Pharmacology*, **2019**, 379, 114640	4.6	10
46	Revisiting the population toxicokinetics of tetrachloroethylene. *Archives of Toxicology*, **2006**, 80, 382-5	5.8	10
45	High-Throughput Analysis of Ovarian Cycle Disruption by Mixtures of Aromatase Inhibitors. *Environmental Health Perspectives*, **2017**, 125, 077012	8.4	9
44	Bayesian inference. *Methods in Molecular Biology*, **2013**, 930, 597-636	1.4	9
43	Decrease in ovalbumin-induced pulmonary allergic response by benzaldehyde but not acetaldehyde exposure in a Guinea pig model. *Journal of Toxicology and Environmental Health - Part A: Current Issues*, **2002**, 65, 995-1012	3.2	9
42	Quantitative AOP based teratogenicity prediction for mixtures of azole fungicides. *Computational Toxicology*, **2019**, 11, 72-81	3.1	8
41	Comprehensive summary--Predict-IV: A systems toxicology approach to improve pharmaceutical drug safety testing. *Toxicology in Vitro*, **2015**, 30, 4-6	3.6	7
40	Development of a generic zebrafish embryo PBPK model and application to the developmental toxicity assessment of valproic acid analogs. *Reproductive Toxicology*, **2020**, 93, 219-229	3.4	7
39	Population pharmacokinetic reanalysis of a Diazepam PBPK model: a comparison of Stan and GNU MCSim. *Journal of Pharmacokinetics and Pharmacodynamics*, **2019**, 46, 173-192	2.7	6
38	Occupational exposure to cobalt: a population toxicokinetic modeling approach validated by field results challenges the biological exposure index for urinary cobalt. *Journal of Occupational and Environmental Hygiene*, **2010**, 7, 54-62	2.9	6
37	Pharmacokinetic-pharmacodynamic models for categorical toxicity data. *Regulatory Toxicology and Pharmacology*, **2005**, 41, 55-65	3.4	6
36	Use of a chemical probe to increase safety for human volunteers in toxicokinetic studies. *Risk Analysis*, **2005**, 25, 1559-71	3.9	6
35	Responses to discussants of RJoint modeling of survival and longitudinal non-survival data: current methods and issues. report of the DIA Bayesian joint modeling working groupR *Statistics in Medicine*, **2015**, 34, 2202-3	2.3	5
34	Population effects and variability. *Methods in Molecular Biology*, **2012**, 929, 521-81	1.4	5
33	Considerations in the attainment of steady state: aggregate vs. individual assessment. *Pharmaceutical Research*, **1998**, 15, 1796-8	4.5	5
32	Sequential updating of a new dynamic pharmacokinetic model for caffeine in premature neonates. *Clinical Pharmacokinetics*, **2007**, 46, 59-74	6.2	5
31	Opening a debate on open-source modeling tools: Pouring fuel on fire versus extinguishing the flare of a healthy debate. *CPT: Pharmacometrics and Systems Pharmacology*, **2021**, 10, 420-427	4.5	5

#	Reference		
30	Herpes simplex virus type 2 (HSV-2) genital shedding in HSV-2-/HIV-1-co-infected women receiving effective combination antiretroviral therapy. *International Journal of STD and AIDS*, **2016**, 27, 178-85	1.4	4
29	Probabilistic generation of random networks taking into account information on motifs occurrence. *Journal of Computational Biology*, **2015**, 22, 25-36	1.7	4
28	Modeling Pharmacokinetics. *Methods in Molecular Biology*, **2016**, 1425, 37-62	1.4	4
27	Experimental Models in Nanotoxicology **2011**, 63-86		4
26	Choice of student's t- or Wilcoxon-based confidence intervals for assessment of average bioequivalence. *Journal of Biopharmaceutical Statistics*, **1997**, 7, 179-89	1.3	4
25	An Approximate Method for Population Toxicokinetic Analysis With Aggregated Data. *Journal of Agricultural, Biological, and Environmental Statistics*, **2007**, 12, 346-363	1.9	4
24	Screening blood donations for hepatitis C in Central Africa: analysis of a risk- and cost-based decision tree. *Medical Decision Making*, **1999**, 19, 296-306	2.5	4
23	Sensitivity analysis of a new model of carcinogenesis. *Journal of Theoretical Biology*, **1992**, 159, 361-75	2.3	4
22	Pharmacokinetic concepts in assessing intake of pentachlorophenol by rats after exposure through drinking water. *Journal of Pharmaceutical Sciences*, **1992**, 81, 1113-8	3.9	4
21	Extrapolating In Vitro Results to Predict Human Toxicity. *Methods in Pharmacology and Toxicology*, **2014**, 531-550	1.1	4
20	A generic PBTK model implemented in the MCRA platform: Predictive performance and uses in risk assessment of chemicals. *Food and Chemical Toxicology*, **2020**, 142, 111440	4.7	3
19	Computational pharmacokinetics at a crossroads. *In Silico Pharmacology*, **2013**, 1, 5	4.3	3
18	Analysis of Nonrandomly Censored Ordered Categorical Longitudinal Data from Analgesic Trials: Comment. *Journal of the American Statistical Association*, **1997**, 92, 1248	2.8	3
17	Propylene glycol monomethyl ether. A three-generation study of isomer beta effects on reproductive and developmental parameters in rats. *Toxicology and Industrial Health*, **2005**, 21, 33-40	1.8	3
16	The Use of Pharmacokinetic Models in the Determination of Risks for Regulatory Purposes **1989**, 573-583		3
15	Predict-IV project overview (EU grant 202222): non animal-based toxicity profiling by integrating toxico dynamics and biokinetics. *Toxicology Letters*, **2013**, 221, S7	4.4	2
14	Estimating metabolic rate for butadiene at steady state using a Bayesian physiologically-based pharmacokinetic model. *Environmental and Ecological Statistics*, **2011**, 18, 131-146	2.2	2
13	Stochasticity in physiologically based kinetics models: implications for cancer risk assessment. *Risk Analysis*, **2009**, 29, 1182-91	3.9	2

List of Publications

12	Quantifying heterogeneity in exposure-risk relationships using exhaled breath biomarkers for 1,3-butadiene exposures. *Journal of Breath Research*, **2008**, 2, 037018	3.1	2
11	Well-tempered MCMC simulations for population pharmacokinetic models. *Journal of Pharmacokinetics and Pharmacodynamics*, **2020**, 47, 543-559	2.7	2
10	Multistate models of developmental toxicity: Application to valproic acid-induced malformations in the zebrafish embryo. *Toxicology and Applied Pharmacology*, **2021**, 414, 115424	4.6	2
9	Ignoring and adding errors do not improve the science. *Carcinogenesis*, **2013**, 34, 1689-91	4.6	1
8	Population-Based Pharmacokinetic Modeling and Simulation **2012**, 1		1
7	Extension of the isobolographic approach to interactions studies between more than two drugs: illustration with the convulsant interaction between pefloxacin, norfloxacin, and theophylline in rats. *Journal of Pharmaceutical Sciences*, **2004**, 93, 553-62	3.9	1
6	A Bayesian population physiologically based pharmacokinetic absorption modeling approach to support generic drug development: application to bupropion hydrochloride oral dosage forms. *Journal of Pharmacokinetics and Pharmacodynamics*, **2021**, 48, 893-908	2.7	0
5	Graph_sampler: a simple tool for fully Bayesian analyses of DAG-models. *Computational Statistics*, **2017**, 32, 691-716		1
4	Benzene toxicokinetics in humans **1997**, 207-218		
3	Uncertainty Analysis: The Bayesian Approach. *Wiley Series in Probability and Statistics*, **2006**, 255-266	1.3	
2	Évaluation des risques sanitaires environnementaux. *Revue Francaise Des Laboratoires*, **2001**, 2001, 59-63		
1	PBPK Modeling to Simulate the Fate of Compounds in Living Organisms.. *Methods in Molecular Biology*, **2022**, 2425, 29-56	1.4	