Paolo Vicini

List of Publications by Year in descending order

94 papers	3,438 citations	147801 31 h-index	155660 55 g-index
97 all docs	97 docs citations	97 times ranked	4216 citing authors

#	Article	IF	Citations
1	SAAM II: Simulation, analysis, and modeling software for tracer and pharmacokinetic studies. Metabolism: Clinical and Experimental, 1998, 47, 484-492.	3.4	401
2	Quantitative Magnetic Resonance Imaging Analysis of Neovasculature Volume in Carotid Atherosclerotic Plaque. Circulation, 2003, 107, 851-856.	1.6	340
3	Catch-Bond Model Derived from Allostery Explains Force-Activated Bacterial Adhesion. Biophysical Journal, 2006, 90, 753-764.	0.5	176
4	A computational multiscale agent-based model for simulating spatio-temporal tumour immune response to PD1 and PDL1 inhibition. Journal of the Royal Society Interface, 2017, 14, 20170320.	3.4	118
5	Population Pharmacokinetics of Durvalumab in Cancer Patients and Association With Longitudinal Biomarkers of Disease Status. Clinical Pharmacology and Therapeutics, 2018, 103, 631-642.	4.7	111
6	Pubertal Adolescent Male-Female Differences in Insulin Sensitivity and Glucose Effectiveness Determined by the One Compartment Minimal Model. Pediatric Research, 2000, 48, 384-388.	2.3	105
7	poped, a software for optimal experiment design in population kinetics. Computer Methods and Programs in Biomedicine, 2004, 74, 29-46.	4.7	79
8	A QSP Model for Predicting Clinical Responses to Monotherapy, Combination and Sequential Therapy Following CTLA-4, PD-1, and PD-L1 Checkpoint Blockade. Scientific Reports, 2019, 9, 11286.	3.3	69
9	Therapeutic outcomes, assessments, risk factors and mitigation efforts of immunogenicity of therapeutic protein products. Cellular Immunology, 2015, 295, 118-126.	3.0	68
10	The hot IVGTT two-compartment minimal model: indexesâ€‰ of glucose effectiveness and insulin sensitivity. American Journal of Physiology - Endocrinology and Metabolism, 1997, 273, E1024-E1032.	3.5	66
11	Multi-scale Modeling in Clinical Oncology: Opportunities and Barriers to Success. Annals of Biomedical Engineering, 2016, 44, 2626-2641.	2.5	66
12	Predicting Human Tumor Drug Concentrations from a Preclinical Pharmacokinetic Model of Temozolomide Brain Disposition. Clinical Cancer Research, 2007, 13, 4271-4279.	7.0	64
13	Pharmacokinetic/Pharmacodynamic Modeling of Crizotinib for Anaplastic Lymphoma Kinase Inhibition and Antitumor Efficacy in Human Tumor Xenograft Mouse Models. Journal of Pharmacology and Experimental Therapeutics, 2012, 340, 549-557.	2.5	62
14	Tumor Drug Penetration Measurements Could Be the Neglected Piece of the Personalized Cancer Treatment Puzzle. Clinical Pharmacology and Therapeutics, 2019, 106, 148-163.	4.7	60
15	Pharmacodynamics of NN2211, a novel long acting GLP-1 derivative. European Journal of Pharmaceutical Sciences, 2003, 19, 141-150.	4.0	59
16	In silico simulation of a clinical trial with anti-CTLA-4 and anti-PD-L1 immunotherapies in metastatic breast cancer using a systems pharmacology model. Royal Society Open Science, 2019, 6, 190366.	2.4	54
17	A Computational Model of Neoadjuvant PD-1 Inhibition in Non-Small Cell Lung Cancer. AAPS Journal, 2019, 21, 79.	4.4	53
18	Cellular energetics analysis by a mathematical model of energy balance: estimation of parameters in human skeletal muscle. American Journal of Physiology - Cell Physiology, 2000, 279, C213-C224.	4.6	50

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19	Multiscale Modeling in the Clinic: Drug Design and Development. Annals of Biomedical Engineering, 2016, 44, 2591-2610.	2.5	50
20	Intracranial Pressure Waveform Morphology and Intracranial Adaptive Capacity. American Journal of Critical Care, 2008, 17, 545-554.	1.6	50
21	Pharmacokinetic Model-Predicted Anticancer Drug Concentrations in Human Tumors. Clinical Cancer Research, 2004, 10, 8048-8058.	7.0	46
22	The iterative two-stage population approach to IVGTT minimal modeling: improved precision with reduced sampling. American Journal of Physiology - Endocrinology and Metabolism, 2001, 280, E179-E186.	3.5	42
23	Robust Population Pharmacokinetic Experiment Design. Journal of Pharmacokinetics and Pharmacodynamics, 2005, 32, 33-64.	1.8	42
24	Postoperative Ketorolac Tromethamine Use in Infants Aged 6???18 Months: The Effect on Morphine Usage, Safety Assessment, and Stereo-Specific Pharmacokinetics. Anesthesia and Analgesia, 2007, 104, 1040-1051.	2.2	41
25	A Mathematical Model of the Effect of Immunogenicity on Therapeutic Protein Pharmacokinetics. AAPS Journal, 2013, 15, 1141-1154.	4.4	41
26	Real-time Dose Adjustment of Cyclophosphamide in a Preparative Regimen for Hematopoietic Cell Transplant: A Bayesian Pharmacokinetic Approach. Clinical Cancer Research, 2006, 12, 4888-4898.	7.0	40
27	Ketorolac tromethamine: stereoâ€specific pharmacokinetics and singleâ€dose use in postoperative infants aged 2â€“6â€ƒmonths. Paediatric Anaesthesia, 2011, 21, 325-334.	1.1	37
28	Best Practices to Maximize the Use and Reuse of Quantitative and Systems Pharmacology Models: Recommendations From the United Kingdom Quantitative and Systems Pharmacology Network. CPT: Pharmacometrics and Systems Pharmacology, 2019, 8, 259-272.	2.5	37
29	Biological monitoring of controlled toluene exposure. International Archives of Occupational and Environmental Health, 1998, 71, 433-444.	2.3	35
30	A Pharmacokinetic/Pharmacodynamic Comparison of SAAM II and PC/WinNonlin Modeling Software. Journal of Pharmaceutical Sciences, 1998, 87, 1255-1263.	3.3	34
31	Population Pharmacokinetics of Cyclophosphamide and Metabolites in Children With Neuroblastoma: A Report From the Children's Oncology Group. Journal of Clinical Pharmacology, 2009, 49, 88-102.	2.0	34
32	Simultaneous population optimal design for pharmacokinetic-pharmacodynamic experiments. AAPS Journal, 2005, 7, E759-E785.	4.4	32
33	Metabolism-based cyclophosphamide dosing for hematopoietic cell transplant. Clinical Pharmacology and Therapeutics, 2005, 78, 298-308.	4.7	31
34	Pharmacokinetic and Pharmacodynamic Properties of Insulin Aspart and Human Insulin. Journal of Pharmacokinetics and Pharmacodynamics, 2003, 30, 221-235.	1.8	30
35	Quantitative Characterization of CD8+ T Cell Clustering and Spatial Heterogeneity in Solid Tumors. Frontiers in Oncology, 2018, 8, 649.	2.8	30
36	Estimation of blood flow heterogeneity distribution in human skeletal muscle from positron emission tomography data. Annals of Biomedical Engineering, 1997, 25, 906-910.	2.5	29

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37	Pharmacokinetic-Pharmacodynamic Modeling of Biomarker Response and Tumor Growth Inhibition to an Orally Available Heat Shock Protein 90 Inhibitor in a Human Tumor Xenograft Mouse Model. Journal of Pharmacology and Experimental Therapeutics, 2011, 338, 964-973.	2.5	29
38	An Evaluation of Population D-Optimal Designs Via Pharmacokinetic Simulations. Annals of Biomedical Engineering, 2003, 31, 98-111.	2.5	27
39	Translational Pharmacokinetic-Pharmacodynamic Modeling for an Orally Available Novel Inhibitor of Anaplastic Lymphoma Kinase and c-Ros Oncogene 1. Journal of Pharmacology and Experimental Therapeutics, 2014, 351, 67-76.	2.5	27
40	Integrated model of hepatic and peripheral glucose regulation for estimation of endogenous glucose production during the hot IVGTT. American Journal of Physiology - Endocrinology and Metabolism, 2005, 288, E1038-E1046.	3.5	26
41	Found in Translation: Maximizing the Clinical Relevance of Nonclinical Oncology Studies. Clinical Cancer Research, 2017, 23, 1080-1090.	7.0	26
42	The status of pharmacometrics in pregnancy: highlights from the 3 rd American conference on pharmacometrics. British Journal of Clinical Pharmacology, 2012, 74, 932-939.	2.4	25
43	Application of Target-Mediated Drug Disposition Model to Small Molecule Heat Shock Protein 90 Inhibitors. Drug Metabolism and Disposition, 2013, 41, 1285-1294.	3.3	24
44	Controlling the bioactivity of a peptide hormone in vivo by reversible self-assembly. Nature Communications, 2017, 8, 1026.	12.8	24
45	Estimation of endogenous glucose production after a glucose perturbation by nonparametric stochastic deconvolution. Computer Methods and Programs in Biomedicine, 1997, 52, 147-156.	4.7	23
46	Glucose production during an IVGTT by deconvolution: validation with the tracer-to-tracee clamp technique. American Journal of Physiology - Endocrinology and Metabolism, 1999, 276, E285-E294.	3.5	22
47	A Limited Sampling Schedule to Estimate Individual Pharmacokinetic Parameters of Fludarabine in Hematopoietic Cell Transplant Patients. Clinical Cancer Research, 2009, 15, 5280-5287.	7.0	22
48	Organ Dose Estimates for Hyperthyroid Patients Treated with 131I: An Update of the Thyrotoxicosis Follow-Up Study. Radiation Research, 2015, 184, 595.	1.5	22
49	Mechanistic Understanding of Translational Pharmacokinetic-Pharmacodynamic Relationships in Nonclinical Tumor Models: A Case Study of Orally Available Novel Inhibitors of Anaplastic Lymphoma Kinase. Drug Metabolism and Disposition, 2015, 43, 54-62.	3.3	21
50	Diminishing the risk of nonrelapse mortality in hematopoietic stem cell transplantation: Prediction of exposure to the cyclophosphamide metabolite carboxyethylphosphoramide mustard. Clinical Pharmacology and Therapeutics, 2004, 76, 270-280.	4.7	20
51	Modeling, Simulation, and Translation Framework for the Preclinical Development of Monoclonal Antibodies. AAPS Journal, 2013, 15, 551-558.	4.4	20
52	Epinephrine effects on insulin-glucose dynamics: the labeled IVGTT two-compartment minimal model approach. American Journal of Physiology - Endocrinology and Metabolism, 2002, 283, E78-E84.	3.5	19
53	Measurement of Human Surfactant Protein-B Turnover in Vivo from Tracheal Aspirates Using Targeted Proteomics. Analytical Chemistry, 2010, 82, 2561-2567.	6.5	19
54	IVGTT glucose minimal model covariate selection by nonlinear mixed-effects approach. American Journal of Physiology - Endocrinology and Metabolism, 2010, 298, E950-E960.	3.5	19

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55	Pubertal changes in HOMA and QUICKI: relationship to hepatic and peripheral insulin sensitivity. Pediatric Diabetes, 2004, 5, 122-125.	2.9	18
56	The Role of Aggregates of Therapeutic Protein Products in Immunogenicity: An Evaluation by Mathematical Modeling. Journal of Immunology Research, 2015, 2015, 1-14.	2.2	18
57	Intracranial pressure waveform morphology and intracranial adaptive capacity. American Journal of Critical Care, 2008, 17, 545-54.	1.6	18
58	Population approaches to estimate minimal model indexes of insulin sensitivity and glucose effectiveness using full and reduced sampling schedules. American Journal of Physiology - Endocrinology and Metabolism, 2006, 291, E716-E723.	3.5	17
59	Kinetic Modeling in Support of Radionuclide Dose Assessment. Seminars in Nuclear Medicine, 2008, 38, 335-346.	4.6	17
60	Physiologically based pharmacokinetic model of midazolam disposition during pregnancy. , 2008, 2008, 5454-7.		17
61	A Limited Sampling Schedule to Estimate Mycophenolic Acid Area Under the Concentrationâ€Time Curve in Hematopoietic Cell Transplantation Recipients. Journal of Clinical Pharmacology, 2012, 52, 1654-1664.	2.0	17
62	An Approach to Determining Intracranial Pressure Variability Capable of Predicting Decreased Intracranial Adaptive Capacity in Patients With Traumatic Brain Injury. Biological Research for Nursing, 2010, 11, 317-324.	1.9	16
63	Estimation of Blood Flow Heterogeneity in Human Skeletal Muscle Using Intravascular Tracer Data: Importance for Modeling Transcapillary Exchange. Annals of Biomedical Engineering, 1998, 26, 764-774.	2.5	14
64	Nonlinear Mixed Effects to Improve Glucose Minimal Model Parameter Estimation: A Simulation Study in Intensive and Sparse Sampling. IEEE Transactions on Biomedical Engineering, 2009, 56, 2156-2166.	4.2	14
65	An Evaluation of Extended vs Weighted Least Squares for Parameter Estimation in Physiological Modeling. Journal of Biomedical Informatics, 2001, 34, 348-364.	4.3	13
66	Paradoxical Role of Cytochrome P450 3A in the Bioactivation and Clinical Effects of Levo-??-Acetylmethadol. Clinical Pharmacokinetics, 2005, 44, 731-751.	3.5	13
67	Kinetic Modeling of Contrast-Enhanced MRI: An Automated Technique for Assessing Inflammation in the Rheumatoid Arthritis Wrist. Annals of Biomedical Engineering, 2007, 35, 781-795.	2.5	13
68	Population pharmacokinetic/dynamic model of lymphosuppression after fludarabine administration. Cancer Chemotherapy and Pharmacology, 2015, 75, 67-75.	2.3	13
69	Exposureâ€“Response Analysis of Overall Survival for Tremelimumab in Unresectable Malignant Mesothelioma: The Confounding Effect of Disease Status. Clinical and Translational Science, 2019, 12, 450-458.	3.1	13
70	Mathematical modeling of receptor occupancy data: A valuable technology for biotherapeutic drug development. Cytometry Part B - Clinical Cytometry, 2016, 90, 230-236.	1.5	12
71	Simulating pharmacokinetic and pharmacodynamic fuzzy-parameterized models: a comparison of numerical methods. Journal of Pharmacokinetics and Pharmacodynamics, 2007, 34, 595-621.	1.8	10
72	Translational modeling and simulation approaches for molecularly targeted small molecule anticancer agents from bench to bedside. Expert Opinion on Drug Metabolism and Toxicology, 2016, 12, 253-265.	3.3	10

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73	A Priori Identifiability of Distributed Models of Bloodâ€“Tissue Exchange. Annals of Biomedical Engineering, 1999, 27, 200-207.	2.5	8
74	Model-based Approaches to Biomarker Discovery and Evaluation: A Multidisciplinary Integrated Review. Critical Reviews in Biomedical Engineering, 2002, 30, 349-418.	0.9	8
75	Individual Prior Information in a Physiological Model of 2H8-Toluene Kinetics: An Empirical Bayes Estimation Strategy. Risk Analysis, 1999, 19, 1127-1134.	2.7	7
76	Parameter estimation in distributed models of blood-tissue Exchange: A monte carlo strategy to assess precision. Annals of Biomedical Engineering, 1997, 25, 815-821.	2.5	6
77	Identifiability and interval identifiability of mammillary and catenary compartmental models with some known rate constants. Mathematical Biosciences, 2000, 167, 145-161.	1.9	6
78	Doseâ€Exposureâ€Response Relationship of the Investigational Antiâ€Interleukinâ€13 Monoclonal Antibody Tralokinumab in Patients With Severe, Uncontrolled Asthma. Clinical Pharmacology and Therapeutics, 2018, 103, 826-835.	4.7	6
79	Estimating in Vitro Mitochondrial Oxygen Consumption During Muscle Contraction and Recovery: A Novel Approach that Accounts for Diffusion. Annals of Biomedical Engineering, 2005, 33, 343-355.	2.5	4
80	Identification of IVGTT minimal glucose model by nonlinear mixed-effects approaches. , 2006, 2006, 5049-52.		4
81	Use of oral glucose minimal modelâ€“derived index of insulin sensitivity in subjects with early type 1 diabetes mellitus. Metabolism: Clinical and Experimental, 2008, 57, 445-447.	3.4	3
82	Glucose Minimal Model population analysis: Likelihood function profiling via Monte Carlo sampling. , 2008, 2008, 4932-5.		3
83	Approaches to Population Kinetic Analysis with Application to Metabolic Studies. Advances in Experimental Medicine and Biology, 1998, 445, 103-113.	1.6	3
84	A review of quantitative modeling of B cell responses to antigenic challenge. Journal of Pharmacokinetics and Pharmacodynamics, 2014, 41, 445-459.	1.8	2
85	THE GLUCOSE MINIMAL MODEL: POPULATION VS INDIVIDUAL PARAMETER ESTIMATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 231-235.	0.4	1
86	A Fuzzy Physiologically Based Pharmacokinetic Modeling Framework to Predict Drug Disposition in Humans. , 2006, 2006, 5037-40.		1
87	A Quantitative Systems Pharmacology Model for the Coagulation Network Describes Biomarker Changes Observed in a Clinical Study with FXa Variant and Predicts Age-Associated Biomarker Variations. Blood, 2015, 126, 3502-3502.	1.4	1
88	Blood-Tissue Exchange Modelling. , 2001, , 373-401.		0
89	Computer Simulations in Pharmacokinetics and Pharmacodynamics: Rediscovering Systems Physiology in the 21st Century. , 2006, , 513-528.		0
90	Bloodâ€“Tissue Exchange Modelling. , 2014, , 381-415.		0

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91	The System for Population Kinetics. , 2009, , 556-571.		0
92	Application of Quantitative Biomeasures in Early Drug Discovery. AAPS Advances in the Pharmaceutical Sciences Series, 2016, , 37-46.	0.6	0
93	A Fuzzy Physiologically Based Pharmacokinetic Modeling Framework to Predict Drug Disposition in Humans. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
94	Identification of IVGTT minimal glucose model by nonlinear mixed-effects approaches. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0