C Anthony Hunt

List of Publications by Year
in descending order

78 papers	1,553 citations	279798 23 h-index	345221 36 g-index
93 all docs	93 docs citations	93 times ranked	1216 citing authors

#	Article	IF	Citations
1	Formation of Cysts by Alveolar Type II Cells in Three-dimensional Culture Reveals a Novel Mechanism for Epithelial Morphogenesis. Molecular Biology of the Cell, 2007, 18, 1693-1700.	2.1	91
2	Engineering targeted in vivo drug delivery. I. The physiological and physicochemical principles governing opportunities and limitations. Pharmaceutical Research, 1986, 03, 333-344.	3.5	83
3	At the Biological Modeling and Simulation Frontier. Pharmaceutical Research, 2009, 26, 2369-2400.	3.5	73
4	Antisense c-myc oligodeoxyribonucleotide cellular uptake. Pharmaceutical Research, 1992, 09, 1010-1017.	3.5	59
5	Physiologically Based Synthetic Models of Hepatic Disposition. Journal of Pharmacokinetics and Pharmacodynamics, 2006, 33, 737-772.	1.8	58
6	Simulating Properties of In Vitro Epithelial Cell Morphogenesis. PLoS Computational Biology, 2006, 2, e129.	3.2	58
7	Tuneable resolution as a systems biology approach for multiâ€scale, multiâ€compartment computational models. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2014, 6, 289-309.	6.6	53
8	LIGHT SENSITIVE LIPOSOMES. Photochemistry and Photobiology, 1983, 37, 491-494.	2.5	49
9	Modeling and Simulation of Hepatic Drug Disposition Using a Physiologically Based, Multi-agent In Silico Liver. Pharmaceutical Research, 2008, 25, 1023-1036.	3.5	46
10	Dynamics of in silico leukocyte rolling, activation, and adhesion. BMC Systems Biology, 2007, 1, 14.	3.0	45
11	Challenges and rewards on the road to translational systems biology in acute illness: four case reports from interdisciplinary teams. Journal of Critical Care, 2007, 22, 169-175.	2.2	44
12	Evidence that cannabidiol does not significantly alter the pharmacokinetics of tetrahydrocannabinol in man. Journal of Pharmacokinetics and Pharmacodynamics, 1981, 9, 245-260.	0.6	40
13	Lymphatic transport of liposome-encapsulated drugs following intraperitoneal administration - effect of lipid composition. Pharmaceutical Research, 1985, 02, 271-278.	3.5	40
14	Buffer effects on swelling kinetics in polybasic gels. Pharmaceutical Research, 1992, 09, 76-81.	3.5	40
15	Predictions of Hepatic Disposition Properties Using a Mechanistically Realistic, Physiologically Based Model. Drug Metabolism and Disposition, 2008, 36, 759-768.	3.3	40
16	Essential operating principles for tumor spheroid growth. BMC Systems Biology, 2008, 2, 110.	3.0	39
17	Dichotomies between computational and mathematical models. Nature Biotechnology, 2008, 26, 737-738.	17.5	36
18	Agentâ€based modeling: a systematic assessment of use cases and requirements for enhancing pharmaceutical research and development productivity. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2013, 5, 461-480.	6.6	33

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19	MDCK Cystogenesis Driven by Cell Stabilization within Computational Analogues. PLoS Computational Biology, 2011, 7, e1002030.	3.2	32
20	Tracing Multiscale Mechanisms of Drug Disposition in Normal and Diseased Livers. Journal of Pharmacology and Experimental Therapeutics, 2010, 334, 124-136.	2.5	29
21	Mechanistic Study of the Cellular Interplay of Transport and Metabolism Using the Synthetic Modeling Method. Pharmaceutical Research, 2006, 23, 493-505.	3.5	28
22	Identifying the Rules of Engagement Enabling Leukocyte Rolling, Activation, and Adhesion. PLoS Computational Biology, 2010, 6, e1000681.	3.2	27
23	A computational approach to resolve cell level contributions to early glandular epithelial cancer progression. BMC Systems Biology, 2009, 3, 122.	3.0	25
24	Computational Strategies Unravel and Trace How Liver Disease Changes Hepatic Drug Disposition. Journal of Pharmacology and Experimental Therapeutics, 2009, 328, 294-305.	2.5	24
25	Relational grounding facilitates development of scientifically useful multiscale models. Theoretical Biology and Medical Modelling, 2011, 8, 35.	2.1	24
26	Mechanistic Insight from In Silico Pharmacokinetic Experiments: Roles of P-glycoprotein, Cyp3A4 Enzymes, and Microenvironments. Journal of Pharmacology and Experimental Therapeutics, 2010, 332, 398-412.	2.5	22
27	Toward modular biological models: defining analog modules based on referent physiological mechanisms. BMC Systems Biology, 2014, 8, 95.	3.0	22
28	Competing Mechanistic Hypotheses of Acetaminophen-Induced Hepatotoxicity Challenged by Virtual Experiments. PLoS Computational Biology, 2016, 12, e1005253.	3.2	22
29	Studies of intestinal drug transport using an in silico epithelio-mimetic device. BioSystems, 2005, 82, 154-167.	2.0	20
30	Discovering Plausible Mechanistic Details of Hepatic Drug Interactions. Drug Metabolism and Disposition, 2009, 37, 237-246.	3.3	20
31	Cloud computing and validation of expandable in silico livers. BMC Systems Biology, 2010, 4, 168.	3.0	19
32	The Spectrum of Mechanism-Oriented Models and Methods for Explanations of Biological Phenomena. Processes, 2018, 6, 56.	2.8	19
33	An In Silico Transwell Device for the Study of Drug Transport and Drugâ€“Drug Interactions. Pharmaceutical Research, 2007, 24, 2171-2186.	3.5	18
34	Computational investigation of epithelial cell dynamic phenotype in vitro. Theoretical Biology and Medical Modelling, 2009, 6, 8.	2.1	17
35	Computational experiments reveal plausible mechanisms for changing patterns of hepatic zonation of xenobiotic clearance and hepatotoxicity. Journal of Theoretical Biology, 2010, 265, 718-733.	1.7	17
36	Contrasting model mechanisms of alanine aminotransferase (ALT) release from damaged and necrotic hepatocytes as an example of general biomarker mechanisms. PLoS Computational Biology, 2020, 16, e1007622.	3.2	17

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37	Liposome Dialysis for Improved Size Distributions. Journal of Pharmaceutical Sciences, 1982, 71, 806-812.	3.3	16
38	A Computational Approach to Understand In Vitro Alveolar Morphogenesis. PLoS ONE, 2009, 4, e4819.	2.5	15
39	In Silico Methods for Unraveling the Mechanistic Complexities of Intestinal Absorption: Metabolism-Efflux Transport Interactions. Drug Metabolism and Disposition, 2008, 36, 1414-1424.	3.3	14
40	Virtual Experiments Enable Exploring and Challenging Explanatory Mechanisms of Immune-Mediated P450 Down-Regulation. PLoS ONE, 2016, 11, e0155855.	2.5	14
41	Synthesis of DNA Dumbbells: Chemical vs. Enzymatic Ligation of Self-Complementary Oligonucleotides. Nucleosides & Nucleotides, 1997, 16, 41-51.	0.5	12
42	Bootstrapping for pharmacokinetic models: visualization of predictive and parameter uncertainty. Pharmaceutical Research, 1998, 15, 690-697.	3.5	12
43	Enabling Clearance Predictions to Emerge from In Silico Actions of Quasi-Autonomous Hepatocyte Components. Drug Metabolism and Disposition, 2011, 39, 1910-1920.	3.3	12
44	Propagation of Pericentral Necrosis During Acetaminophen-Induced Liver Injury: Evidence for Early Interhepatocyte Communication and Information Exchange. Toxicological Sciences, 2019, 169, 151-166.	3.1	12
45	Murine plasma fibronectin depletion after intravenous injection of liposomes. International Journal of Pharmaceutics, 1987, 37, 233-238.	5.2	11
46	Prediction of in Vitro Hepatic Biliary Excretion using Stochastic Agent-Based Modeling and Fuzzy Clustering. , 2006, , .		10
47	Simulation of lung alveolar epithelial wound healing in vitro. Journal of the Royal Society Interface, 2010, 7, 1157-1170.	3.4	8
48	Moving beyond in silico tools to in silico science in support of drug development research. Drug Development Research, 2011, 72, 153-161.	2.9	8
49	A Model Mechanism-Based Explanation of an In Vitro-In Vivo Disconnect for Improving Extrapolation and Translation. Journal of Pharmacology and Experimental Therapeutics, 2018, 365, 127-138.	2.5	8
50	A cell-centered, agent-based framework that enables flexible environment granularities. Theoretical Biology and Medical Modelling, 2016, 13, 4.	2.1	7
51	Individualized, discrete event, simulations provide insight into inter- and intra-subject variability of extended-release, drug products. Theoretical Biology and Medical Modelling, 2012, 9, 39.	2.1	6
52	In Silico, Experimental, Mechanistic Model for Extended-Release Felodipine Disposition Exhibiting Complex Absorption and a Highly Variable Food Interaction. PLoS ONE, 2014, 9, e108392.	2.5	6
53	Artificial Red Cells. A Link Between the Membrane Skeleton and Res Detectability?. Biomaterials, Artificial Cells, and Artificial Organs, 1990, 18, 329-343.	0.2	5
54	Evaluating an hepatic enzyme induction mechanism through coarseâ€•and fineâ€grained measurements of an in silico liver. Complexity, 2009, 14, 28-34.	1.6	5

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55	Falsifying an Enzyme Induction Mechanism within a Validated, Multiscale Liver Model. International Journal of Agent Technologies and Systems, 2012, 4, 1-14.	0.1	5
56	Agent-Directed Tracing of Multi-Scale Drug Disposition Events within Normal and Diseased In Silico Livers. International Journal of Agent Technologies and Systems, 2010, 2, 1-19.	0.1	4
57	Cost-based Partitioning for Distributed and Parallel Simulation of Decomposable Multiscale Constructive Models. Simulation, 2006, 82, 809-826.	1.8	3
58	Mechanistic simulations explain paradoxical saquinavir metabolism during in vitro vectorial transport study. , 2008, 2008, 5462-5.		3
59	Simulation enabled search for explanatory mechanisms of the fracture healing process. PLoS Computational Biology, 2018, 14, e1005980.	3.2	3
60	Advanced Concepts and Generative Simulation Formalisms for Creative Discovery Systems Engineering. Intelligent Systems Reference Library, 2011, , 233-258.	1.2	3
61	Biomimetic in Silico Devices. Lecture Notes in Computer Science, 2005, , 34-42.	1.3	2
62	In silico simulation of epithelial cell tubulogenesis. , 2008, 2008, 1036-9.		2
63	Using an In Silico Liver to evaluate a hepatic enzyme induction mechanism. , 2008, 2008, 2415-8.		2
64	An In Silico Analogue of In Vitro Systems Used to Study Epithelial Cell Morphogenesis. Lecture Notes in Computer Science, 2006, , 285-297.	1.3	2
65	DEVS Peer-to-Peer Protocol for Distributed and Parallel Simulation of Hierarchical and Decomposable DEVS Models. , 2007, , .		1
66	Some Unique Properties of a Bilayer and Liposome Forming System. Materials Research Society Symposia Proceedings, 1987, 110, 413.	0.1	0
67	Synthesis of Artificial Models of Sickle Red Cells. Materials Research Society Symposia Proceedings, 1987, 110, 99.	0.1	0
68	Characterization of apocytochrome C binding to human erythrocytes. American Journal of Hematology, 1994, 47, 132-134.	4.1	0
69	In Silico Analogues of Epithelial Cell Growth and Morphogenesis. , 2006, , .		0
70	Simulation modeling of in vitro epithelial morphogenesis and malignancy. Journal of Critical Care, 2007, 22, 347-348.	2.2	0
71	New Simulation Methods to Facilitate Achieving a Mechanistic Understanding of Basic Pharmacology Principles in the Classroom. Journal of Science Education and Technology, 2008, 17, 366-372.	3.9	0
72	Agent-based simulation of drug disposition in cirrhotic liver. , 2010, , .		0

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73	Simulating plausible mechanisms for changing hepatic xenobiotic clearance patterns. , 2010, , .		0
74	Simulating Properties of In Vitro Epithelial Cell Morphogenesis. PLoS Computational Biology, 2005, preprint, e129.	3.2	0
75	Synthetic Models and Methods. , 2013, , 2046-2050.		0
76	Establishing model mechanismâ€based causal linkages between APAPâ€induced hepatic necrosis and serum ALT. FASEB Journal, 2019, 33, 506.11.	0.5	0
77	In vitroâ€“in vivo extrapolation of hepatic clearance: using virtual experiments to identify a plausibly influential source of inaccuracies. FASEB Journal, 2019, 33, .	0.5	0
78	A framework and mechanistically focused, in silico method for enabling rational translational research. Summit on Translational Bioinformatics, 2008, 2008, 46-50.	0.7	0