David M Reif

List of Publications by Citations

125 papers	6,002 citations	43 h-index	76 g-index
137 ext. papers	6,845 ext. citations	5.6 avg, IF	5.52 L-index

#	Paper	IF	Citations
125	In vitro screening of environmental chemicals for targeted testing prioritization: the ToxCast project. *Environmental Health Perspectives*, **2010**, 118, 485-92	8.4	439
124	Update on EPA's ToxCast program: providing high throughput decision support tools for chemical risk management. *Chemical Research in Toxicology*, **2012**, 25, 1287-302	4	357
123	Endocrine profiling and prioritization of environmental chemicals using ToxCast data. *Environmental Health Perspectives*, **2010**, 118, 1714-20	8.4	231
122	Zebrafish developmental screening of the ToxCast Phase I chemical library. *Reproductive Toxicology*, **2012**, 33, 174-87	3.4	228
121	Multidimensional in vivo hazard assessment using zebrafish. *Toxicological Sciences*, **2014**, 137, 212-33	4.4	206
120	Incorporating human dosimetry and exposure into high-throughput in vitro toxicity screening. *Toxicological Sciences*, **2010**, 117, 348-58	4.4	189
119	Impact of environmental chemicals on key transcription regulators and correlation to toxicity end points within EPA's ToxCast program. *Chemical Research in Toxicology*, **2010**, 23, 578-90	4	164
118	Profiling chemicals based on chronic toxicity results from the U.S. EPA ToxRef Database. *Environmental Health Perspectives*, **2009**, 117, 392-9	8.4	163
117	Machine learning for detecting gene-gene interactions: a review. *Applied Bioinformatics*, **2006**, 5, 77-88		163
116	Predictive models of prenatal developmental toxicity from ToxCast high-throughput screening data. *Toxicological Sciences*, **2011**, 124, 109-27	4.4	155
115	Profiling 976 ToxCast chemicals across 331 enzymatic and receptor signaling assays. *Chemical Research in Toxicology*, **2013**, 26, 878-95	4	145
114	Phenotypic screening of the ToxCast chemical library to classify toxic and therapeutic mechanisms. *Nature Biotechnology*, **2014**, 32, 583-91	44.5	141
113	Analysis of eight oil spill dispersants using rapid, in vitro tests for endocrine and other biological activity. *Environmental Science & Technology*, **2010**, 44, 5979-85	10.3	127
112	Editor's Highlight: Analysis of the Effects of Cell Stress and Cytotoxicity on In Vitro Assay Activity Across a Diverse Chemical and Assay Space. *Toxicological Sciences*, **2016**, 152, 323-39	4.4	125
111	Predictive model of rat reproductive toxicity from ToxCast high throughput screening. *Biology of Reproduction*, **2011**, 85, 327-39	3.9	122
110	Using in vitro high throughput screening assays to identify potential endocrine-disrupting chemicals. *Environmental Health Perspectives*, **2013**, 121, 7-14	8.4	119
109	Activity profiles of 309 ToxCast chemicals evaluated across 292 biochemical targets. *Toxicology*, **2011**, 282, 1-15	4.4	115

108	Profiling of the Tox21 10K compound library for agonists and antagonists of the estrogen receptor alpha signaling pathway. *Scientific Reports*, **2014**, 4, 5664	4.9	113
107	Perspectives on validation of high-throughput assays supporting 21st century toxicity testing. *ALTEX: Alternatives To Animal Experimentation*, **2013**, 30, 51-6	4.3	105
106	An Introduction to Terminology and Methodology of Chemical Synergy-Perspectives from Across Disciplines. *Frontiers in Pharmacology*, **2017**, 8, 158	5.6	102
105	High-throughput models for exposure-based chemical prioritization in the ExpoCast project. *Environmental Science & Technology*, **2013**, 47, 8479-88	10.3	102
104	Environmental impact on vascular development predicted by high-throughput screening. *Environmental Health Perspectives*, **2011**, 119, 1596-603	8.4	98
103	Combinatorial pharmacogenetics. *Nature Reviews Drug Discovery*, **2005**, 4, 911-8	64.1	94
102	High-throughput characterization of chemical-associated embryonic behavioral changes predicts teratogenic outcomes. *Archives of Toxicology*, **2016**, 90, 1459-70	5.8	89
101	Aggregating data for computational toxicology applications: The U.S. Environmental Protection Agency (EPA) Aggregated Computational Toxicology Resource (ACToR) System. *International Journal of Molecular Sciences*, **2012**, 13, 1805-31	6.3	89
100	A computational model predicting disruption of blood vessel development. *PLoS Computational Biology*, **2013**, 9, e1002996	5	88
99	Transgenerational inheritance of neurobehavioral and physiological deficits from developmental exposure to benzo[a]pyrene in zebrafish. *Toxicology and Applied Pharmacology*, **2017**, 329, 148-157	4.6	73
98	Comparison of toxicity values across zebrafish early life stages and mammalian studies: Implications for chemical testing. *Reproductive Toxicology*, **2015**, 55, 3-10	3.4	66
97	Predictive endocrine testing in the 21st century using in vitro assays of estrogen receptor signaling responses. *Environmental Science & Technology*, **2014**, 48, 8706-16	10.3	64
96	Toxicity testing in the 21st century beyond environmental chemicals. *ALTEX: Alternatives To Animal Experimentation*, **2015**, 32, 171-81	4.3	62
95	In vitro perturbations of targets in cancer hallmark processes predict rodent chemical carcinogenesis. *Toxicological Sciences*, **2013**, 131, 40-55	4.4	60
94	ToxPi GUI: an interactive visualization tool for transparent integration of data from diverse sources of evidence. *Bioinformatics*, **2013**, 29, 402-3	7.2	60
93	Genetic basis for adverse events after smallpox vaccination. *Journal of Infectious Diseases*, **2008**, 198, 16-22	7	59
92	Using ToxCast□Data to Reconstruct Dynamic Cell State Trajectories and Estimate Toxicological Points of Departure. *Environmental Health Perspectives*, **2016**, 124, 910-9	8.4	55
91	Novel methods for detecting epistasis in pharmacogenomics studies. *Pharmacogenomics*, **2007**, 8, 1229-41	2.6	53

90	Impact of Low-Dose Oral Exposure to Bisphenol A (BPA) on Juvenile and Adult Rat Exploratory and Anxiety Behavior: A CLARITY-BPA Consortium Study. *Toxicological Sciences*, **2015**, 148, 341-54	4.4	51
89	Evaluation of 309 environmental chemicals using a mouse embryonic stem cell adherent cell differentiation and cytotoxicity assay. *PLoS ONE*, **2011**, 6, e18540	3.7	51
88	ToxPi Graphical User Interface 2.0: Dynamic exploration, visualization, and sharing of integrated data models. *BMC Bioinformatics*, **2018**, 19, 80	3.6	50
87	A chemical-biological similarity-based grouping of complex substances as a prototype approach for evaluating chemical alternatives. *Green Chemistry*, **2016**, 18, 4407-4419	10	50
86	Test driving ToxCast: endocrine profiling for 1858 chemicals included in phase II. *Current Opinion in Pharmacology*, **2014**, 19, 145-52	5.1	47
85	Xenobiotic-metabolizing enzyme and transporter gene expression in primary cultures of human hepatocytes modulated by ToxCast chemicals. *Journal of Toxicology and Environmental Health - Part B: Critical Reviews*, **2010**, 13, 329-46	8.6	47
84	Use of high-throughput in vitro toxicity screening data in cancer hazard evaluations by IARC Monograph Working Groups. *ALTEX: Alternatives To Animal Experimentation*, **2018**, 35, 51-64	4.3	47
83	Using nuclear receptor activity to stratify hepatocarcinogens. *PLoS ONE*, **2011**, 6, e14584	3.7	43
82	A comparison of analytical methods for genetic association studies. *Genetic Epidemiology*, **2008**, 32, 767-78	2.8	43
81	Integrated analysis of genetic, genomic and proteomic data. *Expert Review of Proteomics*, **2004**, 1, 67-75	4.2	43
80	Comparing metabolomic and pathologic biomarkers alone and in combination for discriminating Alzheimer's disease from normal cognitive aging. *Acta Neuropathologica Communications*, **2013**, 1, 28	7.3	42
79	Dosimetric anchoring of in vivo and in vitro studies for perfluorooctanoate and perfluorooctanesulfonate. *Toxicological Sciences*, **2013**, 136, 308-27	4.4	39
78	Cytokine expression patterns associated with systemic adverse events following smallpox immunization. *Journal of Infectious Diseases*, **2006**, 194, 444-53	7	39
77	Meta-analysis of toxicity and teratogenicity of 133 chemicals from zebrafish developmental toxicity studies. *Reproductive Toxicology*, **2013**, 41, 98-108	3.4	34
76	Real-time growth kinetics measuring hormone mimicry for ToxCast chemicals in T-47D human ductal carcinoma cells. *Chemical Research in Toxicology*, **2013**, 26, 1097-107	4	34
75	Prioritizing Environmental Chemicals for Obesity and Diabetes Outcomes Research: A Screening Approach Using ToxCast High-Throughput Data. *Environmental Health Perspectives*, **2016**, 124, 1141-54	8.4	34
74	Advancing toxicology research using in vivo high throughput toxicology with small fish models. *ALTEX: Alternatives To Animal Experimentation*, **2016**, 33, 435-452	4.3	34
73	Advancing Exposure Science through Chemical Data Curation and Integration in the Comparative Toxicogenomics Database. *Environmental Health Perspectives*, **2016**, 124, 1592-1599	8.4	28

72	The COVID-19 Pandemic Vulnerability Index (PVI) Dashboard: Monitoring County-Level Vulnerability Using Visualization, Statistical Modeling, and Machine Learning. *Environmental Health Perspectives*, **2021**, 129, 17701	8.4	27
71	Feature Selection using a Random Forests Classifier for the Integrated Analysis of Multiple Data Types **2006**,		26
70	Population-based toxicity screening in human induced pluripotent stem cell-derived cardiomyocytes. *Toxicology and Applied Pharmacology*, **2019**, 381, 114711	4.6	25
69	Incorporating exposure information into the toxicological prioritization index decision support framework. *Science of the Total Environment*, **2012**, 435-436, 316-25	10.2	25
68	Data-driven asthma endotypes defined from blood biomarker and gene expression data. *PLoS ONE*, **2015**, 10, e0117445	3.7	24
67	Population genetic diversity in zebrafish lines. *Mammalian Genome*, **2018**, 29, 90-100	3.2	23
66	Incorporating biological, chemical, and toxicological knowledge into predictive models of toxicity. *Toxicological Sciences*, **2012**, 130, 440-1; author reply 442-3	4.4	20
65	Evaluation of genetic susceptibility to childhood allergy and asthma in an African American urban population. *BMC Medical Genetics*, **2011**, 12, 25	2.1	19
64	Decision tree-based method for integrating gene expression, demographic, and clinical data to determine disease endotypes. *BMC Systems Biology*, **2013**, 7, 119	3.5	18
63	From the Cover: Embryonic Exposure to TCDD Impacts Osteogenesis of the Axial Skeleton in Japanese medaka, Oryzias latipes. *Toxicological Sciences*, **2017**, 155, 485-496	4.4	17
62	Hierarchical dose-response modeling for high-throughput toxicity screening of environmental chemicals. *Biometrics*, **2014**, 70, 237-46	1.8	16
61	Sex-specific effects of perinatal FireMaster 550 (FM 550) exposure on socioemotional behavior in prairie voles. *Neurotoxicology and Teratology*, **2020**, 79, 106840	3.9	16
60	Comparative microarray analysis and pulmonary changes in Brown Norway rats exposed to ovalbumin and concentrated air particulates. *Toxicological Sciences*, **2009**, 108, 207-21	4.4	15
59	Incorporating ToxCast and Tox21 datasets to rank biological activity of chemicals at Superfund sites in North Carolina. *Environment International*, **2017**, 101, 19-26	12.9	14
58	Systematic determination of the relationship between nanoparticle core diameter and toxicity for a series of structurally analogous gold nanoparticles in zebrafish. *Nanotoxicology*, **2019**, 13, 879-893	5.3	14
57	Understanding the Evolutionary Process of Grammatical Evolution Neural Networks for Feature Selection in Genetic Epidemiology **2006**, 2006, 1-8		14
56	Elucidating Gene-by-Environment Interactions Associated with Differential Susceptibility to Chemical Exposure. *Environmental Health Perspectives*, **2018**, 126, 067010	8.4	14
55	Exploratory visual analysis of pharmacogenomic results. *Pacific Symposium on Biocomputing Pacific Symposium on Biocomputing*, **2005**, 296-307	1.3	14

54	A New Statistical Approach to Characterize Chemical-Elicited Behavioral Effects in High-Throughput Studies Using Zebrafish. *PLoS ONE*, **2017**, 12, e0169408	3.7	13
53	Use of Neural Models of Proliferation and Neurite Outgrowth to Screen Environmental Chemicals in the ToxCast Phase I Library. *Applied in Vitro Toxicology*, **2015**, 1, 131-139	1.3	10
52	Aggregate entropy scoring for quantifying activity across endpoints with irregular correlation structure. *Reproductive Toxicology*, **2016**, 62, 92-9	3.4	10
51	The multi-dimensional embryonic zebrafish platform predicts flame retardant bioactivity. *Reproductive Toxicology*, **2020**, 96, 359-369	3.4	10
50	Lifetime substance use as a predictor of postpartum mental health. *Archives of Womenls Mental Health*, **2017**, 20, 189-199	5	9
49	Mechanistic indicators of childhood asthma (MICA) study: piloting an integrative design for evaluating environmental health. *BMC Public Health*, **2011**, 11, 344	4.1	9
48	Research needs for community-based risk assessment: findings from a multi-disciplinary workshop. *Journal of Exposure Science and Environmental Epidemiology*, **2010**, 20, 186-95	6.7	9
47	Concentration-response evaluation of ToxCast compounds for multivariate activity patterns of neural network function. *Archives of Toxicology*, **2020**, 94, 469-484	5.8	9
46	A data-driven weighting scheme for multivariate phenotypic endpoints recapitulates zebrafish developmental cascades. *Toxicology and Applied Pharmacology*, **2017**, 314, 109-117	4.6	8
45	Integration of curated and high-throughput screening data to elucidate environmental influences on disease pathways. *Computational Toxicology*, **2019**, 12,	3.1	8
44	Molecular cloning, functional characterization, and evolutionary analysis of vitamin D receptors isolated from basal vertebrates. *PLoS ONE*, **2015**, 10, e0122853	3.7	8
43	Evolutionary and Functional Diversification of the Vitamin D Receptor-Lithocholic Acid Partnership. *PLoS ONE*, **2016**, 11, e0168278	3.7	8
42	HGBEnviroScreen: Enabling Community Action through Data Integration in the Houston-Galveston-Brazoria Region. *International Journal of Environmental Research and Public Health*, **2020**, 17,	4.6	7
41	Characterizing the effects of missing data and evaluating imputation methods for chemical prioritization applications using ToxPi. *BioData Mining*, **2018**, 11, 10	4.3	7
40	Visual analysis of statistical results from microarray studies of human breast cancer. *Oncology Reports*, **2006**, 15 Spec no., 1043-7	3.5	7
39	Exploratory Visual Analysis of statistical results from microarray experiments comparing high and low grade glioma. *Cancer Informatics*, **2007**, 5, 19-24	2.4	7
38	Eigenvector metabolite analysis reveals dietary effects on the association among metabolite correlation patterns, gene expression, and phenotypes. *Metabolomics*, **2016**, 12, 1	4.7	7
37	A comparison of internal model validation methods for multifactor dimensionality reduction in the case of genetic heterogeneity. *BMC Research Notes*, **2012**, 5, 623	2.3	6

36	Children's Environmental Health: A Systems Approach for Anticipating Impacts from Chemicals. *International Journal of Environmental Research and Public Health*, **2020**, 17,	4.6	6
35	Leveraging high-throughput screening data, deep neural networks, and conditional generative adversarial networks to advance predictive toxicology. *PLoS Computational Biology*, **2021**, 17, e1009135	5	6
34	Decoupling of a neutron interferometer from temperature gradients. *Review of Scientific Instruments*, **2016**, 87, 123507	1.7	6
33	Confirmation of high-throughput screening data and novel mechanistic insights into VDR-xenobiotic interactions by orthogonal assays. *Scientific Reports*, **2018**, 8, 8883	4.9	5
32	Multiomic Big Data Analysis Challenges: Increasing Confidence in the Interpretation of Artificial Intelligence Assessments. *Analytical Chemistry*, **2021**, 93, 7763-7773	7.8	5
31	assessment of respiratory burst inhibition by xenobiotic exposure using larval zebrafish. *Journal of Immunotoxicology*, **2020**, 17, 94-104	3.1	4
30	Linkage Disequilibrium in Genetic Association Studies Improves the Performance of Grammatical Evolution Neural Networks **2007**, 2007, 1-8		4
29	Development of a Pandemic Awareness STEM Outreach Curriculum: Utilizing a Computational Thinking Taxonomy Framework. *Education Sciences*, **2021**, 11,	2.2	4
28	Multivariate modeling of engineered nanomaterial features associated with developmental toxicity. *NanoImpact*, **2019**, 16, 100185-100185	5.6	4
27	Determination of chemical-disease risk values to prioritize connections between environmental factors, genetic variants, and human diseases. *Toxicology and Applied Pharmacology*, **2019**, 379, 114674	4.6	3
26	Synergistic Chemotherapy Drug Response Is a Genetic Trait in Lymphoblastoid Cell Lines. *Frontiers in Genetics*, **2019**, 10, 829	4.5	3
25	A Balanced Accuracy Fitness Function Leads to Robust Analysis using Grammatical Evolution Neural Networks in the Case of Class Imbalance **2008**, 2008, 353-354		3
24	Linkage Disequilibrium in Genetic Association Studies Improves the Performance of Grammatical Evolution Neural Networks **2007**,		3
23	EXPLORATORY VISUAL ANALYSIS OF PHARMACOGENOMIC RESULTS **2004**,		3
22	The COVID-19 Pandemic Vulnerability Index (PVI) Dashboard: Monitoring county-level vulnerability using visualization, statistical modeling, and machine learning **2020**,		3
21	Structural-based connectivity and omic phenotype evaluations (SCOPE): a cheminformatics toolbox for investigating lipidomic changes in complex systems. *Analyst, The*, **2020**, 145, 7197-7209	5	3
20	Complex Function Sets Improve Symbolic Discriminant Analysis of Microarray Data. *Lecture Notes in Computer Science*, **2003**, 2277-2287	0.9	3
19	Computational Methods Used in Systems Biology **2015**, 85-115		2

18	Integrating Morphological and Behavioral Phenotypes in Developing Zebrafish **2017**, 259-272		2
17	Concurrent Evaluation of Mortality and Behavioral Responses: A Fast and Efficient Testing Approach for High-Throughput Chemical Hazard Identification.. *Frontiers in Toxicology*, **2021**, 3, 670496	1.6	2
16	Associations between access to healthcare, environmental quality, and end-stage renal disease survival time: Proportional-hazards models of over 1,000,000 people over 14 years. *PLoS ONE*, **2019**, 14, e0214094	3.7	1
15	ToxCast: Predicting Toxicity Potential Through High-Throughput Bioactivity Profiling **2013**, 1-31		1
14	Optimization of grammatical evolution decision trees **2011**,		1
13	Leveraging high-throughput screening data and conditional generative adversarial networks to advance predictive toxicology		1
12	Uncovering Evidence for Endocrine-Disrupting Chemicals That Elicit Differential Susceptibility through Gene-Environment Interactions. *Toxics*, **2021**, 9,	4.7	1
11	Neonatal mice exposed to a high-fat diet influence the behaviour of their nursing dam. *Proceedings of the Royal Society B: Biological Sciences*, **2018**, 285,	4.4	1
10	High-throughput screening and genome-wide analyses of 44 anticancer drugs in the 1000 Genomes cell lines reveals an association of the NQO1 gene with the response of multiple anticancer drugs. *PLoS Genetics*, **2021**, 17, e1009732	6	1
9	Systematic developmental toxicity assessment of a structurally diverse library of PFAS in zebrafish.. *Journal of Hazardous Materials*, **2022**, 431, 128615	12.8	1
8	Comparison of National Vulnerability Indices Used by the Centers for Disease Control and Prevention for the COVID-19 Response.. *Public Health Reports*, **2022**, 333549221090262	2.5	1
7	Implementation of Zebrafish Ontologies for Toxicology Screening.. *Frontiers in Toxicology*, **2022**, 4, 817998	2.6	0
6	Exploratory Visual Analysis of Statistical Results from Microarray Experiments Comparing High and Low Grade Glioma. *Cancer Informatics*, **2007**, 5, 117693510700500	2.4	
5	Embracing Complexity: Searching for Gene-Gene and Gene Environment Interactions in Genetic Epidemiology **2015**, 19-57		
4	Extending the lymphoblastoid cell line model for drug combination pharmacogenomics. *Pharmacogenomics*, **2021**, 22, 543-551	2.6	
3	Inappropriate Citation of Vaccine Article. *Journal of Infectious Diseases*, **2020**, 222, 1413-1414	7	
2	Demonstrating a systems approach for integrating disparate data streams to inform decisions on children's environmental health.. *BMC Public Health*, **2022**, 22, 313	4.1	
1	Leveraging a High-Throughput Screening Method to Identify Mechanisms of Individual Susceptibility Differences in a Genetically Diverse Zebrafish Model.. *Frontiers in Toxicology*, **2022**, 4, 846221	2.6	