

# David J Ecker

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9264709/publications.pdf>

Version: 2024-02-01

110  
papers

7,319  
citations

47006

47  
h-index

56724

83  
g-index

112  
all docs

112  
docs citations

112  
times ranked

6779  
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of Antibiotic Resistance Genes in Multidrug-Resistant <i>Acinetobacter</i> sp. Isolates from Military and Civilian Patients Treated at the Walter Reed Army Medical Center. <i>Antimicrobial Agents and Chemotherapy</i> , 2006, 50, 4114-4123.	3.2	457
2	RNAMotif, an RNA secondary structure definition and search algorithm. <i>Nucleic Acids Research</i> , 2001, 29, 4724-4735.	14.5	421
3	Ibis T5000: a universal biosensor approach for microbiology. <i>Nature Reviews Microbiology</i> , 2008, 6, 553-558.	28.6	296
4	Effects of phosphorothioate capping on antiviral oligonucleotide stability, hybridization and antiviral efficacy versus herpes simplex virus infection. <i>Nucleic Acids Research</i> , 1991, 19, 5743-5748.	14.5	238
5	Implication of RNA structure on antisense oligonucleotide hybridization kinetics. <i>Biochemistry</i> , 1992, 31, 12055-12061.	2.5	236
6	Oligodeoxynucleotides containing 2'-O-modified adenosine: Synthesis and effects on stability of DNA:RNA duplexes. <i>Biochemistry</i> , 1993, 32, 7832-7838.	2.5	214
7	Structure-Activity Relationships of Novel 2-Substituted Quinazoline Antibacterial Agents. <i>Journal of Medicinal Chemistry</i> , 1999, 42, 4705-4713.	6.4	209
8	De Novo Initiation of Viral RNA-Dependent RNA Synthesis. <i>Virology</i> , 2001, 287, 251-260.	2.4	199
9	Carbapenem-resistant <i>Acinetobacter baumannii</i> and <i>Klebsiella pneumoniae</i> across a hospital system: impact of post-acute care facilities on dissemination. <i>Journal of Antimicrobial Chemotherapy</i> , 2010, 65, 1807-1818.	3.0	176
10	Rapid identification and strain-typing of respiratory pathogens for epidemic surveillance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 8012-8017.	7.1	165
11	New technology for rapid molecular diagnosis of bloodstream infections. <i>Expert Review of Molecular Diagnostics</i> , 2010, 10, 399-415.	3.1	165
12	Rapid Diagnosis of Infection in the Critically Ill, a Multicenter Study of Molecular Detection in Bloodstream Infections, Pneumonia, and Sterile Site Infections*. <i>Critical Care Medicine</i> , 2015, 43, 2283-2291.	0.9	159
13	Identification of <i>Acinetobacter</i> Species and Genotyping of <i>Acinetobacter baumannii</i> by Multilocus PCR and Mass Spectrometry. <i>Journal of Clinical Microbiology</i> , 2006, 44, 2921-2932.	3.9	156
14	SAR by MS: Discovery of a New Class of RNA-Binding Small Molecules for the Hepatitis C Virus: Internal Ribosome Entry Site IIA Subdomain. <i>Journal of Medicinal Chemistry</i> , 2005, 48, 7099-7102.	6.4	149
15	Improved Sensitivity for Molecular Detection of Bacterial and <i>Candida</i> Infections in Blood. <i>Journal of Clinical Microbiology</i> , 2014, 52, 3164-3174.	3.9	145
16	TIGER: the universal biosensor. <i>International Journal of Mass Spectrometry</i> , 2005, 242, 23-41.	1.5	140
17	Global Surveillance of Emerging Influenza Virus Genotypes by Mass Spectrometry. <i>PLoS ONE</i> , 2007, 2, e489.	2.5	122
18	Tcf4 Regulates Synaptic Plasticity, DNA Methylation, and Memory Function. <i>Cell Reports</i> , 2016, 16, 2666-2685.	6.4	113

#	ARTICLE	IF	CITATIONS
19	Transmission Dynamics and Prospective Environmental Sampling of Adenovirus in a Military Recruit Setting. <i>Journal of Infectious Diseases</i> , 2006, 194, 877-885.	4.0	112
20	Rapid Identification of Emerging Infectious Agents Using PCR and Electrospray Ionization Mass Spectrometry. <i>Annals of the New York Academy of Sciences</i> , 2007, 1102, 109-120.	3.8	97
21	Prevalence of <i>Borrelia miyamotoi</i> in <i>Ixodes</i> Ticks in Europe and the United States. <i>Emerging Infectious Diseases</i> , 2014, 20, 1678-82.	4.3	95
22	Rapid Identification of Emerging Pathogens: Coronavirus. <i>Emerging Infectious Diseases</i> , 2005, 11, 373-379.	4.3	94
23	Potent and Specific Inhibition of HIV Envelope-Mediated Cell Fusion and Virus Binding by G Quartet-Forming Oligonucleotide (ISIS 5320). <i>AIDS Research and Human Retroviruses</i> , 1994, 10, 1497-1506.	1.1	85
24	Direct broad-range detection of alphaviruses in mosquito extracts. <i>Virology</i> , 2007, 368, 286-295.	2.4	84
25	Rapid Determination of Quinolone Resistance in <i>Acinetobacter</i> spp. <i>Journal of Clinical Microbiology</i> , 2009, 47, 1436-1442.	3.9	82
26	Rational screening of oligonucleotide combinatorial libraries for drug discovery. <i>Nucleic Acids Research</i> , 1993, 21, 1853-1856.	14.5	78
27	Deconvolution of Combinatorial Libraries for Drug Discovery: A Model System. <i>Journal of Medicinal Chemistry</i> , 1995, 38, 344-352.	6.4	78
28	Multiplexed Screening of Neutral Mass-Tagged RNA Targets against Ligand Libraries with Electrospray Ionization FTICR MS: A Paradigm for High-Throughput Affinity Screening. <i>Analytical Chemistry</i> , 1999, 71, 3436-3440.	6.5	78
29	The Microbial Rosetta Stone Database: a compilation of global and emerging infectious microorganisms and bioterrorist threat agents. <i>BMC Microbiology</i> , 2005, 5, 19.	3.3	78
30	Genotypic Variation and Mixtures of Lyme <i>Borrelia</i> in <i>Ixodes</i> Ticks from North America and Europe. <i>PLoS ONE</i> , 2010, 5, e10650.	2.5	78
31	Deconvolution of Combinatorial Libraries for Drug Discovery: An Experimental Comparison of Pooling Strategies. <i>Journal of Medicinal Chemistry</i> , 1996, 39, 2720-2726.	6.4	75
32	Detection and Identification of <i>Ehrlichia</i> Species in Blood by Use of PCR and Electrospray Ionization Mass Spectrometry. <i>Journal of Clinical Microbiology</i> , 2010, 48, 472-478.	3.9	74
33	Molecular Genotyping of Microbes by Multilocus PCR and Mass Spectrometry: A New Tool for Hospital Infection Control and Public Health Surveillance. <i>Methods in Molecular Biology</i> , 2009, 551, 71-87.	0.9	73
34	Direct Molecular Detection and Genotyping of <i>Borrelia burgdorferi</i> from Whole Blood of Patients with Early Lyme Disease. <i>PLoS ONE</i> , 2012, 7, e36825.	2.5	71
35	Combinatorial Drug Discovery: Which Methods Will Produce the Greatest Value?. <i>Nature Biotechnology</i> , 1995, 13, 351-360.	17.5	70
36	Iron(III) coordination chemistry of linear dihydroxyserine compounds derived from enterobactin. <i>Inorganic Chemistry</i> , 1991, 30, 900-906.	4.0	64

#	ARTICLE	IF	CITATIONS
37	Rapid Molecular Genotyping and Clonal Complex Assignment of <i>Staphylococcus aureus</i> Isolates by PCR Coupled to Electrospray Ionization-Mass Spectrometry. <i>Journal of Clinical Microbiology</i> , 2009, 47, 1733-1741.	3.9	63
38	The IRIDICA BAC BSI Assay: Rapid, Sensitive and Culture-Independent Identification of Bacteria and <i>Candida</i> in Blood. <i>PLoS ONE</i> , 2016, 11, e0158186.	2.5	62
39	Occurrence, Distribution, and Origins of <i>Streptococcus pneumoniae</i> Serotype 6C, a Recently Recognized Serotype. <i>Journal of Clinical Microbiology</i> , 2009, 47, 64-72.	3.9	61
40	Pathogen Profiling: Rapid Molecular Characterization of <i>Staphylococcus aureus</i> by PCR/Electrospray Ionization-Mass Spectrometry and Correlation with Phenotype. <i>Journal of Clinical Microbiology</i> , 2009, 47, 3129-3137.	3.9	60
41	New Perspectives on the Structure and Function of Ubiquitin. <i>Nature Biotechnology</i> , 1990, 8, 209-215.	17.5	58
42	Mass spectrometry provides accurate characterization of two genetic marker types in <i>Bacillus anthracis</i> . <i>BioTechniques</i> , 2004, 37, 642-651.	1.8	56
43	Extraction of Total Nucleic Acids From Ticks for the Detection of Bacterial and Viral Pathogens. <i>Journal of Medical Entomology</i> , 2010, 47, 89-94.	1.8	55
44	Rapid Diagnosis of Bloodstream Infections with PCR Followed by Mass Spectrometry. <i>PLoS ONE</i> , 2013, 8, e62108.	2.5	54
45	Rapid Molecular Diagnostics, Antibiotic Treatment Decisions, and Developing Approaches to Inform Empiric Therapy: PRIMERS I and II. <i>Clinical Infectious Diseases</i> , 2016, 62, 181-189.	5.8	52
46	Substituted complexes of enterobactin and synthetic analogs as probes of the ferric-enterobactin receptor in <i>Escherichia coli</i> . <i>Journal of the American Chemical Society</i> , 1988, 110, 2457-2464.	13.7	50
47	Rapid identification viruses from nasal pharyngeal aspirates in acute viral respiratory infections by RT-PCR and electrospray ionization mass spectrometry. <i>Journal of Virological Methods</i> , 2011, 173, 60-66.	2.1	50
48	Survey of <i>Ixodes pacificus</i> Ticks in California Reveals a Diversity of Microorganisms and a Novel and Widespread Anaplasmataceae Species. <i>PLoS ONE</i> , 2015, 10, e0135828.	2.5	50
49	Rapid Detection and Molecular Serotyping of Adenovirus by Use of PCR Followed by Electrospray Ionization Mass Spectrometry. <i>Journal of Clinical Microbiology</i> , 2008, 46, 644-651.	3.9	47
50	Extraction of Total Nucleic Acids From Ticks for the Detection of Bacterial and Viral Pathogens. <i>Journal of Medical Entomology</i> , 2010, 47, 89-94.	1.8	47
51	Discovery of RNA structural elements using evolutionary computation. <i>Nucleic Acids Research</i> , 2002, 30, 5310-5317.	14.5	46
52	Rapid and High-Throughput Detection of Highly Pathogenic Bacteria by Ibis PLEX-ID Technology. <i>PLoS ONE</i> , 2012, 7, e39928.	2.5	46
53	Base composition analysis of human mitochondrial DNA using electrospray ionization mass spectrometry: A novel tool for the identification and differentiation of humans. <i>Analytical Biochemistry</i> , 2005, 344, 53-69.	2.4	45
54	Coordination chemistry of microbial iron transport compounds. 34. The pH-dependent reduction of ferric enterobactin probed by electrochemical methods and its implications for microbial iron transport. <i>Journal of the American Chemical Society</i> , 1985, 107, 6920-6923.	13.7	44

#	ARTICLE	IF	CITATIONS
55	Atypical Erythema Migrans in Patients with PCR-Positive Lyme Disease. <i>Emerging Infectious Diseases</i> , 2013, 19, 815-817.	4.3	43
56	Enhanced Diagnostic Yields of Bacteremia and Candidemia in Blood Specimens by PCR-Electrospray Ionization Mass Spectrometry. <i>Journal of Clinical Microbiology</i> , 2013, 51, 3535-3541.	3.9	43
57	PCR Followed by Electrospray Ionization Mass Spectrometry for Broad-Range Identification of Fungal Pathogens. <i>Journal of Clinical Microbiology</i> , 2013, 51, 959-966.	3.9	43
58	Deconvolution of Combinatorial Libraries for Drug Discovery: A Theoretical Comparison of Pooling Strategies. <i>Journal of Medicinal Chemistry</i> , 1996, 39, 2710-2719.	6.4	42
59	Cellular and molecular pharmacology of auranofin and related gold complexes. <i>Biochemical Pharmacology</i> , 1986, 35, 3423-3431.	4.4	40
60	Microbiota Evaluation of Patients With a Boston Type I Keratoprosthesis Treated With Topical 0.5% Moxifloxacin and 5% Povidone-Iodine. <i>Cornea</i> , 2013, 32, 407-411.	1.7	37
61	Rapid identification of vector-borne flaviviruses by mass spectrometry. <i>Molecular and Cellular Probes</i> , 2010, 24, 219-228.	2.1	36
62	Identification of Endosymbionts in Ticks by Broad-Range Polymerase Chain Reaction and Electrospray Ionization Mass Spectrometry. <i>Journal of Medical Entomology</i> , 2012, 49, 843-850.	1.8	35
63	Reverse transcription polymerase chain reaction and electrospray ionization mass spectrometry for identifying acute viral upper respiratory tract infections. <i>Diagnostic Microbiology and Infectious Disease</i> , 2011, 69, 179-186.	1.8	34
64	Broad-Range Survey of Tick-Borne Pathogens in Southern Germany Reveals a High Prevalence of <i>Babesia microti</i> and a Diversity of Other Tick-Borne Pathogens. <i>Vector-Borne and Zoonotic Diseases</i> , 2014, 14, 584-591.	1.5	34
65	Comprehensive Biothreat Cluster Identification by PCR/Electrospray-Ionization Mass Spectrometry. <i>PLoS ONE</i> , 2012, 7, e36528.	2.5	33
66	Broad-Spectrum Biosensor Capable of Detecting and Identifying Diverse Bacterial and Candida Species in Blood. <i>Journal of Clinical Microbiology</i> , 2013, 51, 2670-2678.	3.9	32
67	Cholic acid-oligonucleotide conjugates for antisense applications. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1994, 4, 1053-1060.	2.2	30
68	Drug Leads from Combinatorial Phosphodiester Libraries. <i>Journal of Medicinal Chemistry</i> , 1995, 38, 4363-4366.	6.4	30
69	High-Resolution Genotyping of <i>Campylobacter</i> Species by Use of PCR and High-Throughput Mass Spectrometry. <i>Journal of Clinical Microbiology</i> , 2008, 46, 1220-1225.	3.9	30
70	Simultaneous Identification of Mycobacterial Isolates to the Species Level and Determination of Tuberculosis Drug Resistance by PCR Followed by Electrospray Ionization Mass Spectrometry. <i>Journal of Clinical Microbiology</i> , 2011, 49, 908-917.	3.9	30
71	Salvage Microbiology: Detection of Bacteria Directly from Clinical Specimens following Initiation of Antimicrobial Treatment. <i>PLoS ONE</i> , 2013, 8, e66349.	2.5	30
72	Inhibition of Human Immunodeficiency Virus Type 1 Infection in SCID-hu Thy/Liv Mice by the G-Quartet-Forming Oligonucleotide, ISIS 5320. <i>Antimicrobial Agents and Chemotherapy</i> , 1998, 42, 2113-2115.	3.2	29

#	ARTICLE	IF	CITATIONS
73	Pyoderma Gangrenosum-Like Ulcer in a Patient With X-Linked Agammaglobulinemia. Archives of Dermatology, 2010, 146, 523-6.	1.4	27
74	Broad-range survey of vector-borne pathogens and tick host identification of Ixodes ricinus from Southern Czech Republic. FEMS Microbiology Ecology, 2017, 93, .	2.7	27
75	Survey of Culture, GoldenGate Assay, Universal Biosensor Assay, and 16S rRNA Gene Sequencing as Alternative Methods of Bacterial Pathogen Detection. Journal of Clinical Microbiology, 2013, 51, 3263-3269.	3.9	25
76	Rapid and High-Throughput pan-Orthopoxvirus Detection and Identification using PCR and Mass Spectrometry. PLoS ONE, 2009, 4, e6342.	2.5	25
77	Genotypic Evolution of Acinetobacter baumannii Strains in an Outbreak Associated With War Trauma. Infection Control and Hospital Epidemiology, 2008, 29, 553-555.	1.8	24
78	Concurrent Serotyping and Genotyping of Pneumococci by Use of PCR and Electrospray Ionization Mass Spectrometry. Journal of Clinical Microbiology, 2012, 50, 2018-2025.	3.9	23
79	Rapid identification of blaKPC-possessing Enterobacteriaceae by PCR/electrospray ionization-mass spectrometry. Journal of Antimicrobial Chemotherapy, 2010, 65, 1833-1834.	3.0	22
80	Strategies for Rapid Deconvolution of Combinatorial Libraries: A Comparative Evaluation Using a Model System. Journal of Medicinal Chemistry, 1997, 40, 4386-4395.	6.4	20
81	Molecular Characterization of Drug-Resistant Mycobacterium tuberculosis Isolates Circulating in China by Multilocus PCR and Electrospray Ionization Mass Spectrometry. Journal of Clinical Microbiology, 2011, 49, 2719-2721.	3.9	19
82	An Antisense Oligonucleotide Leads to Suppressed Transcription of Hdac2 and Long-Term Memory Enhancement. Molecular Therapy - Nucleic Acids, 2020, 19, 1399-1412.	5.1	18
83	Rev response elements (RRE) in lentiviruses: An RNA Motif algorithm-based strategy for RRE prediction. Medicinal Research Reviews, 2002, 22, 617-636.	10.5	17
84	Identification of conserved regulatory RNA structures in prokaryotic metabolic pathway genes. BioSystems, 2005, 80, 145-154.	2.0	17
85	Identification of Streptococcus intermedius Central Nervous System Infection by Use of PCR and Electrospray Ionization Mass Spectrometry. Journal of Clinical Microbiology, 2012, 50, 4160-4162.	3.9	17
86	Analysis of cerebrospinal fluid from chronic fatigue syndrome patients for multiple human ubiquitous viruses and xenotropic murine leukemia-related virus. Annals of Neurology, 2011, 69, 735-738.	5.3	16
87	Novel Guanosine Quartet Structure Binds to the HIV Envelope and Inhibits Envelope Mediated Cell Fusion. Nucleosides, Nucleotides and Nucleic Acids, 1995, 14, 1117-1127.	1.1	15
88	Longitudinal Analysis of the Temporal Evolution of Acinetobacter baumannii Strains in Ohio, USA, by Using Rapid Automated Typing Methods. PLoS ONE, 2012, 7, e33443.	2.5	15
89	Evaluation of PCR electrospray-ionization mass spectrometry for rapid molecular diagnosis of bovine mastitis. Journal of Dairy Science, 2013, 96, 3611-3620.	3.4	13
90	Detection and identification of viral pathogens in patients with hand, foot, and mouth disease by multilocus PCR, reverse-transcription PCR and electrospray ionization mass spectrometry. Journal of Clinical Virology, 2014, 59, 115-119.	3.1	13

#	ARTICLE	IF	CITATIONS
91	Detection of heartworm infection in dogs via PCR amplification and electrospray ionization mass spectrometry of nucleic acid extracts from whole blood samples. <i>American Journal of Veterinary Research</i> , 2012, 73, 854-859.	0.6	11
92	Molecular Testing of Serial Blood Specimens from Patients with Early Lyme Disease during Treatment Reveals Changing Coinfection with Mixtures of <i>Borrelia burgdorferi</i> Genotypes. <i>Antimicrobial Agents and Chemotherapy</i> , 2019, 63, .	3.2	11
93	Chromosomal mapping of the ubiquitin gene family in <i>Saccharomyces cerevisiae</i> by pulsed field gel electrophoresis. <i>Nucleic Acids Research</i> , 1989, 17, 3611-3612.	14.5	10
94	PNA, antisense, and antimicrobials. <i>Nature Biotechnology</i> , 1998, 16, 332-332.	17.5	9
95	Achieving molecular diagnostics for Lyme disease. <i>Expert Review of Molecular Diagnostics</i> , 2013, 13, 875-883.	3.1	9
96	The value and validation of broad spectrum biosensors for diagnosis and biodefense. <i>Virulence</i> , 2013, 4, 752-758.	4.4	9
97	The Microbial Rosetta Stone Database: A Common Structure for Microbial Biosecurity Threat Agents. <i>Journal of Forensic Sciences</i> , 2005, 50, 1-6.	1.6	9
98	Molecular Microbiological and Immune Characterization of a Cohort of Patients Diagnosed with Early Lyme Disease. <i>Journal of Clinical Microbiology</i> , 2020, 59, .	3.9	7
99	â€˜Mutational SURFâ€™: A strategy for improving lead compounds identified from combinatorial libraries. <i>Bioorganic and Medicinal Chemistry</i> , 1996, 4, 717-725.	3.0	6
100	The Microbial Rosetta Stone: a database system for tracking infectious microorganisms. <i>International Journal of Legal Medicine</i> , 2009, 123, 65-69.	2.2	6
101	Rapid PCR/ESI-MS-based molecular genotyping of <i>Staphylococcus aureus</i> from nasal swabs of emergency department patients. <i>BMC Infectious Diseases</i> , 2014, 14, 16.	2.9	5
102	A vector for construction of gene libraries and the expression of heterologous genes in <i>Saccharomyces cerevisiae</i> . <i>Plasmid</i> , 1987, 17, 171-172.	1.4	4
103	Molecular genotyping of <i>Acinetobacter</i> spp. isolated in Arizona, USA, using multilocus PCR and mass spectrometry. <i>Journal of Medical Microbiology</i> , 2013, 62, 1295-1300.	1.8	4
104	Microbial Forensic Analysis of Trace and Unculturable Specimens. , 2011, , 155-171.		2
105	Detection of <i>Plasmodium vivax</i> in a child returning from India by use of broad-range PCR and electrospray ionization mass spectrometry. <i>Emerging Microbes and Infections</i> , 2012, 1, 1-3.	6.5	2
106	Germ Catcher. <i>Scientific American</i> , 2014, 310, 50-55.	1.0	1
107	Microbial Identification by PCR/Electrospray Ionization-Mass Spectrometry. , 2013, , 441-465.		1
108	Drugs targets and bioterrorism defense. <i>Targets</i> , 2003, 2, 35-37.	0.3	0

#	ARTICLE	IF	CITATIONS
109	Rev Response Elements (RRE) in Lentiviruses: An RNAMotif Algorithm-Based Strategy for RRE Prediction. ChemInform, 2003, 34, no.	0.0	0
110	Corrigendum to "Evaluation of PCR electrospray-ionization mass spectrometry for rapid molecular diagnosis of bovine mastitis" (J. Dairy Sci. 96:3611-3620). Journal of Dairy Science, 2015, 98, 718.	3.4	0