Leonard H Rome

List of Publications by Year
in descending order

115 papers	8,055 citations	57631 44 h-index	49773 87 g-index
115 all docs	115 docs citations	115 times ranked	7040 citing authors

#	Article	IF	Citations
1	Decolorization and detoxification of synthetic dye compounds by laccase immobilized in vault nanoparticles. Bioresource Technology, 2022, 351, 127040.	4.8	22
2	Immobilized fungal enzymes: Innovations and potential applications in biodegradation and biosynthesis. Biotechnology Advances, 2022, 57, 107936.	6.0	23
3	Immunoediting role for major vault protein in apoptotic signaling induced by bacterial <i>N</i> -acyl homoserine lactones. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	11
4	Vault nanocapsule-mediated biomimetic silicification for efficient and robust immobilization of proteins in silica composites. Chemical Engineering Journal, 2021, 418, 129406.	6.6	9
5	Vault packaged enzyme mediated degradation of amino-aromatic energetic compounds. Chemosphere, 2020, 242, 125117.	4.2	11
6	Bioengineered recombinant vault nanoparticles coupled with NY-ESO-1 glioma-associated antigens induce maturation of native dendritic cells. Journal of Neuro-Oncology, 2020, 148, 1-7.	1.4	7
7	Intratumor injection of CCL21-coupled vault nanoparticles is associated with reduction in tumor volume in an in vivo model of glioma. Journal of Neuro-Oncology, 2020, 147, 599-605.	1.4	21
8	Human Vault Nanoparticle Targeted Delivery of Antiretroviral Drugs to Inhibit Human Immunodeficiency Virus Type 1 Infection. Bioconjugate Chemistry, 2019, 30, 2216-2227.	1.8	13
9	Reassessment of Exosome Composition. Cell, 2019, 177, 428-445.e18.	13.5	1,786
10	A Vault-Encapsulated Enzyme Approach for Efficient Degradation and Detoxification of Bisphenol A and Its Analogues. ACS Sustainable Chemistry and Engineering, 2019, 7, 5808-5817.	3.2	28
11	Solution Structures of Engineered Vault Particles. Structure, 2018, 26, 619-626.e3.	1.6	14
12	Synthesis and assembly of human vault particles in yeast. Biotechnology and Bioengineering, 2018, 115, 2941-2950.	1.7	14
13	Encapsulation of Exogenous Proteins in Vault Nanoparticles. Methods in Molecular Biology, 2018, 1798, 25-37.	0.4	4
14	Vault Nanoparticles: Chemical Modifications for Imaging and Enhanced Delivery. ACS Nano, 2017, 11, 872-881.	7.3	30
15	Modulation of the Vault Protein-Protein Interaction for Tuning of Molecular Release. Scientific Reports, 2017, 7, 14816.	1.6	8
16	A Protective Vaccine against Chlamydia Genital Infection Using Vault Nanoparticles without an Added Adjuvant. Vaccines, 2017, 5, 3.	2.1	26
17	Vault Nanoparticles Packaged with Enzymes as an Efficient Pollutant Biodegradation Technology. ACS Nano, 2015, 9, 10931-10940.	7.3	49
18	Dual pH- and temperature-responsive protein nanoparticles. European Polymer Journal, 2015, 69, 532-539.	2.6	31

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19	Activation of the NLRP3 inflammasome by vault nanoparticles expressing a chlamydial epitope. Vaccine, 2015, 33, 298-306.	1.7	21
20	Polyribosomes Are Molecular 3D Nanoprinters That Orchestrate the Assembly of Vault Particles. ACS Nano, 2014, 8, 11552-11559.	7.3	35
21	Bioengineered Vaults: Self-Assembling Protein Shellâ€"Lipophilic Core Nanoparticles for Drug Delivery. ACS Nano, 2014, 8, 7723-7732.	7.3	54
22	Vault nanoparticles engineered with the protein transduction domain, TAT48, enhances cellular uptake. Integrative Biology (United Kingdom), 2013, 5, 151-158.	0.6	15
23	Development of the Vault Particle as a Platform Technology. ACS Nano, 2013, 7, 889-902.	7.3	75
24	Smart Vaults: Thermally-Responsive Protein Nanocapsules. ACS Nano, 2013, 7, 867-874.	7.3	59
25	CCL21 Chemokine Therapy for Lung Cancer. International Trends in Immunity, 2013, 1, 10-15.	0.4	8
26	198â€ƒAn Antigen Vault Nanoparticle Vaccine Can Effectively Stimulate Dendritic Cells and Activate a Specific T cell Immune Response. Neurosurgery, 2012, 71, E576-E577.	0.6	0
27	Vault Nanocapsules as Adjuvants Favor Cell-Mediated over Antibody-Mediated Immune Responses following Immunization of Mice. PLoS ONE, 2012, 7, e38553.	1.1	35
28	Targeted Vault Nanoparticles Engineered with an Endosomolytic Peptide Deliver Biomolecules to the Cytoplasm. ACS Nano, 2011, 5, 6128-6137.	7.3	43
29	Novel CCL21-Vault Nanocapsule Intratumoral Delivery Inhibits Lung Cancer Growth. PLoS ONE, 2011, 6, e18758.	1.1	93
30	Vaults Engineered for Hydrophobic Drug Delivery. Small, 2011, 7, 1432-1439.	5.2	41
31	Drug Delivery: Vaults Engineered for Hydrophobic Drug Delivery (Small 10/2011). Small, 2011, 7, 1431-1431.	5.2	0
32	Vaults Are Dynamically Unconstrained Cytoplasmic Nanoparticles Capable of Half Vault Exchange. ACS Nano, 2010, 4, 7229-7240.	7.3	27
33	Immobilization of Recombinant Vault Nanoparticles on Solid Substrates. ACS Nano, 2010, 4, 1417-1424.	7.3	16
34	Nucleic acid nanocapsules: packaging mRNA into the vault particle. FASEB Journal, 2010, 24, 886.1.	0.2	0
35	Structural Stability of Vault Particles. Journal of Pharmaceutical Sciences, 2009, 98, 1376-1386.	1.6	32
36	Vault Nanoparticles Containing an Adenovirus-Derived Membrane Lytic Protein Facilitate Toxin and Gene Transfer. ACS Nano, 2009, 3, 691-699.	7.3	40

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37	Targeting Vault Nanoparticles to Specific Cell Surface Receptors. ACS Nano, 2009, 3, 27-36.	7.3	92
38	Utilization of a Protein â€œShuttleâ€•To Load Vault Nanocapsules with Gold Probes and Proteins. ACS Nano, 2009, 3, 3175-3183.	7.3	38
39	A Vault Nanoparticle Vaccine Induces Protective Mucosal Immunity. PLoS ONE, 2009, 4, e5409.	1.1	98
40	Particles slip cell security. Nature Materials, 2008, 7, 519-520.	13.3	43
41	Encapsulation of Semiconducting Polymers in Vault Protein Cages. Nano Letters, 2008, 8, 3503-3509.	4.5	31
42	Reversible pH Lability of Cross-linked Vault Nanocapsules. Nano Letters, 2008, 8, 3510-3515.	4.5	19
43	Draft Crystal Structure of the Vault Shell at 9-Ã… Resolution. PLoS Biology, 2007, 5, e318.	2.6	43
44	Vault Nanocapsule Dissociation into Halves Triggered at Low pHâ€. Biochemistry, 2007, 46, 2865-2875.	1.2	39
45	Sizing large proteins and protein complexes by electrospray ionization mass spectrometry and ion mobility. Journal of the American Society for Mass Spectrometry, 2007, 18, 1206-1216.	1.2	141
46	The Vault Exterior Shell Is a Dynamic Structure that Allows Incorporation of Vault-Associated Proteins into Its Interiorâ€. Biochemistry, 2006, 45, 12184-12193.	1.2	58
47	Movement of vault particles visualized by GFP-tagged major vault protein. Cell and Tissue Research, 2006, 324, 403-410.	1.5	18
48	Minimizing the VPARP MVP interaction domain and implications in engineering new vault function. FASEB Journal, 2006, 20, LB60.	0.2	0
49	Nuclear localization of the major vault protein in U373 cells. Cell and Tissue Research, 2005, 321, 97-104.	1.5	25
50	Engineering of vault nanocapsules with enzymatic and fluorescent properties. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 4348-4352.	3.3	123
51	Increased Susceptibility of Vault Poly(ADP-Ribose) Polymeraseâ€“Deficient Mice to Carcinogen-Induced Tumorigenesis. Cancer Research, 2005, 65, 8846-8852.	0.4	47
52	The p80 homology region of TEP1 is sufficient for its association with the telomerase and vault RNAs, and the vault particle. Nucleic Acids Research, 2005, 33, 893-902.	6.5	28
53	Vault Poly(ADP-Ribose) Polymerase Is Associated with Mammalian Telomerase and Is Dispensable for Telomerase Function and Vault Structure In Vivo. Molecular and Cellular Biology, 2004, 24, 5314-5323.	1.1	50
54	Analysis of MVP and VPARP promoters indicates a role for chromatin remodeling in the regulation of MVP. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 2004, 1678, 33-46.	2.4	7

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55	Cryoelectron Microscopy Imaging of Recombinant and Tissue Derived Vaults: Localization of the MVP N Termini and VPARP. Journal of Molecular Biology, 2004, 344, 91-105.	2.0	85
56	Identification of conserved vault RNA expression elements and a non-expressed mouse vault RNA gene. Gene, 2003, 309, 65-70.	1.0	28
57	The La RNA-binding Protein Interacts with the Vault RNA and Is a Vault-associated Protein. Journal of Biological Chemistry, 2002, 277, 41282-41286.	1.6	37
58	A very early induction of major vault protein accompanied by increased drug resistance in U-937 cells. International Journal of Cancer, 2002, 97, 149-156.	2.3	31
59	Up-regulation of vaults may be necessary but not sufficient for multidrug resistance. International Journal of Cancer, 2001, 92, 195-202.	2.3	80
60	The Telomerase/Vault-Associated Protein Tep1 Is Required for Vault RNA Stability and Its Association with the Vault Particle. Journal of Cell Biology, 2001, 152, 157-164.	2.3	73
61	Assembly of Vault-like Particles in Insect Cells Expressing Only the Major Vault Protein. Journal of Biological Chemistry, 2001, 276, 23217-23220.	1.6	120
62	RNA location and modeling of a WD40 repeat domain within the vault. Rna, 2000, 6, 890-900.	1.6	66
63	Analysis of sulfatide from rat cerebellum and multiple sclerosis white matter by negative ion electrospray mass spectrometry. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2000, 1484, 59-70.	1.2	54
64	Vaults and Telomerase Share a Common Subunit, TEP1. Journal of Biological Chemistry, 1999, 274, 32712-32717.	1.6	128
65	Recombinant Major Vault Protein Is Targeted to Neuritic Tips of PC12 Cells. Journal of Cell Biology, 1999, 144, 1163-1172.	2.3	53
66	The 193-Kd Vault Protein, Vparp, Is a Novel Poly(Adp-Ribose) Polymerase. Journal of Cell Biology, 1999, 146, 917-928.	2.3	355
67	Structure of the vault, a ubiquitous celular component. Structure, 1999, 7, 371-379.	1.6	114
68	Cloning of a cDNA encoding a sequence-specific single-stranded-DNA-binding protein from Rattus norvegicus. Gene, 1999, 237, 201-207.	1.0	5
69	Role of axonal components during myelination. Microscopy Research and Technique, 1998, 41, 379-392.	1.2	18
70	Vaults Are Up-regulated in Multidrug-resistant Cancer Cell Lines. Journal of Biological Chemistry, 1998, 273, 8971-8974.	1.6	207
71	Axonal Proteins Involved in Myelination: Characterization of a Collagen-Like Protein. Developmental Neuroscience, 1997, 19, 421-429.	1.0	5
72	Vaults are the answer, what is the question?. Trends in Cell Biology, 1996, 6, 174-178.	3.6	71

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73	Relationship of LRP-human major vault protein toin vitro and clinical resistance to anticancer drugs. Cytotechnology, 1996, 19, 191-197.	0.7	49
74	Multidrug resistance: Locked in the vault?. Nature Medicine, 1995, 1, 527-527.	15.2	3
75	Dictyostelium Vaults: Disruption of the Major Proteins Reveals Growth and Morphological Defects and Uncovers a New Associated Protein. Journal of Biological Chemistry, 1995, 270, 16588-16594.	1.6	46
76	Cloning and sequence of the cDNA encoding the rat oligodendrocyte integrin Î²1 subunit. Gene, 1995, 158, 287-290.	1.0	14
77	Expression of a beta 1-related integrin by oligodendroglia in primary culture: evidence for a functional role in myelination. Journal of Cell Biology, 1994, 124, 1039-1046.	2.3	48
78	Stimulation of in vitro myelin synthesis by microglia. Glia, 1994, 11, 326-335.	2.5	97
79	The sequence of a cDNA encoding the major vault protein from Rattus norvegicus. Gene, 1994, 151, 257-260.	1.0	45
80	Functional evidence for the role of axolemma in CNS myelination. Neuron, 1994, 13, 473-485.	3.8	39
81	A Protein Involved in Central Nervous System Myelination: Localization in the Extracellular Matrix and Induction in Neuroblastoma Cells. Developmental Neuroscience, 1994, 16, 267-278.	1.0	6
82	Myelination in cerebellar slice cultures: Development of a system amenable to biochemical analysis. Journal of Neuroscience Research, 1993, 36, 621-634.	1.3	63
83	Expression of multiple integrins and extracellular matrix components by C6 glioma cells. Journal of Neuroscience Research, 1992, 31, 470-478.	1.3	17
84	Immunolocalization of vault particles in cultured cells. Proceedings Annual Meeting Electron Microscopy Society of America, 1992, 50, 458-459.	0.0	0
85	Unlocking vaults: organelles in search of a function. Trends in Cell Biology, 1991, 1, 47-50.	3.6	112
86	Vaults. III. Vault ribonucleoprotein particles open into flower-like structures with octagonal symmetry.. Journal of Cell Biology, 1991, 112, 225-235.	2.3	161
87	Vaults: Large cytoplasmic RNP's that associate with cytoskeletal elements. Molecular Biology Reports, 1990, 14, 121-122.	1.0	29
88	Glass micro-fibers: A model system for study of early events in myelination. Journal of Neuroscience Research, 1990, 27, 383-393.	1.3	20
89	Vaults. II. Ribonucleoprotein structures are highly conserved among higher and lower eukaryotes.. Journal of Cell Biology, 1990, 110, 895-901.	2.3	143
90	Matrix Interactions Regulating Myelinogenesis in Cultured Oligodendrocytes. Advances in Experimental Medicine and Biology, 1990, 265, 157-167.	0.8	4

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91	Cation-independent mannose 6-phosphate receptor contains covalently bound fatty acid. Journal of Cellular Biochemistry, 1988, 38, 23-33.	1.2	18
92	Evidence that an RGD-dependent receptor mediates the binding of oligodendrocytes to a novel ligand in a glial-derived matrix.. Journal of Cell Biology, 1988, 107, 1541-1549.	2.3	39
93	RGD-containing peptides inhibit the synthesis of myelin-like membrane by cultured oligodendrocytes.. Journal of Cell Biology, 1988, 107, 1551-1559.	2.3	45
94	Lysosomal enzyme precursors in coated vesicles derived from the exocytic and endocytic pathways.. Journal of Cell Biology, 1987, 104, 1743-1748.	2.3	67
95	Preparative agarose gel electrophoresis for the purification of small organelles and particles. Analytical Biochemistry, 1986, 156, 161-170.	1.1	39
96	Synthesis of a myelin-like membrane by oligodendrocytes in culture. Journal of Neuroscience Research, 1986, 15, 49-65.	1.3	76
97	Isolation and characterization of a novel ribonucleoprotein particle: large structures contain a single species of small RNA.. Journal of Cell Biology, 1986, 103, 699-709.	2.3	287
98	Genetic evidence for transmembrane acetylation by lysosomes. Science, 1986, 233, 1087-1089.	6.0	32
99	Subpopulations of liver coated vesicles resolved by preparative agarose gel electrophoresis.. Journal of Cell Biology, 1986, 103, 287-297.	2.3	35
100	Binding and internalization of lysosomal enzymes by primary cultures of rat glia. Journal of Neuroscience Research, 1985, 14, 35-47.	1.3	13
101	Curling receptors. Trends in Biochemical Sciences, 1985, 10, 151.	3.7	20
102	Interaction of rat liver lysosomal membranes with actin.. Journal of Cell Biology, 1984, 99, 680-685.	2.3	21
103	Lysosomal function in the degradation of defective collagen in cultured lung fibroblasts. Biochemistry, 1984, 23, 2134-2138.	1.2	33
104	[52] Î±-l-iduronidase from human kidney. Methods in Enzymology, 1982, 83, 578-582.	0.4	6
105	[53] Uptake and binding of Î±-l-iduronidase. Methods in Enzymology, 1982, 83, 582-587.	0.4	0
106	Assay and purification of a solubilized membrane receptor that binds the lysosomal enzyme Î±-l-iduronidase. Archives of Biochemistry and Biophysics, 1982, 214, 681-687.	1.4	79
107	Butanedione treatment reduces receptor binding of a lysosomal enzyme to cells and membranes. Biochemical and Biophysical Research Communications, 1980, 92, 986-993.	1.0	41
108	Two species of lysosomal organelles in cultured human fibroblasts. Cell, 1979, 17, 143-153.	13.5	378

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109	Direct demonstration of binding of a lysosomal enzyme, alpha-L-iduronidase, to receptors on cultured fibroblasts.. Proceedings of the National Academy of Sciences of the United States of America, 1979, 76, 2331-2334.	3.3	140
110	Human kidney Î±-l-Iduronidase: Purification and characterization. Archives of Biochemistry and Biophysics, 1978, 189, 344-353.	1.4	54
111	The transport of lysosomal enzymes. Journal of Supramolecular Structure, 1977, 6, 95-101.	2.3	208
112	Aspirin as a quantitative acetylating reagent for the fatty acid oxygenase that forms prostaglandins. Prostaglandins, 1976, 11, 23-30.	1.2	74
113	Structural requirements for time-dependent inhibition of prostaglandin biosynthesis by anti-inflammatory drugs.. Proceedings of the National Academy of Sciences of the United States of America, 1975, 72, 4863-4865.	3.3	286
114	Properties of a partially-purified preparation of the prostaglandin-forming oxygenase from sheep vesicular gland. Prostaglandins, 1975, 10, 813-824.	1.2	37
115	Solution Structures of Engineered Vault Particles. SSRN Electronic Journal, 0, , .	0.4	0