

Eric V Shusta

List of Publications by Year in descending order

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106
papers

8,047
citations

57758

44
h-index

51608

86
g-index

116
all docs

116
docs citations

116
times ranked

8203
citing authors

#	ARTICLE	IF	CITATIONS
1	Intrinsic blood-brain barrier dysfunction contributes to multiple sclerosis pathogenesis. <i>Brain</i> , 2022, 145, 4334-4348.	7.6	37
2	Antibody-Targeted Liposomes for Enhanced Targeting of the Blood-Brain Barrier. <i>Pharmaceutical Research</i> , 2022, 39, 1523-1534.	3.5	8
3	Identification of lamprey variable lymphocyte receptors that target the brain vasculature. <i>Scientific Reports</i> , 2022, 12, 6044.	3.3	5
4	Identification of Brain ECM Binding Variable Lymphocyte Receptors Using Yeast Surface Display. <i>Methods in Molecular Biology</i> , 2022, 2491, 235-248.	0.9	2
5	Differentiation of Brain Pericyte-Like Cells from Human Pluripotent Stem Cell-Derived Neural Crest. <i>Current Protocols</i> , 2021, 1, e21.	2.9	5
6	Comparative evaluation of isogenic mesodermal and ectomesodermal chondrocytes from human iPSCs for cartilage regeneration. <i>Science Advances</i> , 2021, 7, .	10.3	17
7	Integrative analysis of the human brain mural cell transcriptome. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2021, 41, 3052-3068.	4.3	15
8	Differentiation of human pluripotent stem cells to brain microvascular endothelial cell-like cells suitable to study immune cell interactions. <i>STAR Protocols</i> , 2021, 2, 100563.	1.2	14
9	A human three-dimensional neural-perivascular "assembloid"™ promotes astrocytic development and enables modeling of SARS-CoV-2 neuropathology. <i>Nature Medicine</i> , 2021, 27, 1600-1606.	30.7	94
10	Integrating in vitro disease models of the neurovascular unit into discovery and development of neurotherapeutics. <i>Current Opinion in Biomedical Engineering</i> , 2021, 20, 100341.	3.4	2
11	Wnt signaling mediates acquisition of blood-brain barrier properties in naïve endothelium derived from human pluripotent stem cells. <i>ELife</i> , 2021, 10, .	6.0	31
12	In vitro models of the blood-brain barrier: building in physiological complexity. <i>Current Opinion in Chemical Engineering</i> , 2020, 30, 42-52.	7.8	19
13	Neuronal Activity Regulates Blood-Brain Barrier Efflux Transport through Endothelial Circadian Genes. <i>Neuron</i> , 2020, 108, 937-952.e7.	8.1	86
14	Commentary on human pluripotent stem cell-based blood-brain barrier models. <i>Fluids and Barriers of the CNS</i> , 2020, 17, 64.	5.0	75
15	Blood-Brain Barrier Modulation to Improve Glioma Drug Delivery. <i>Pharmaceutics</i> , 2020, 12, 1085.	4.5	52
16	Transcriptomic comparison of human and mouse brain microvessels. <i>Scientific Reports</i> , 2020, 10, 12358.	3.3	89
17	Sonic Hedgehog Signaling in Cranial Neural Crest Cells Regulates Microvascular Morphogenesis in Facial Development. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 590539.	3.7	11
18	Advancing human induced pluripotent stem cell-derived blood-brain barrier models for studying immune cell interactions. <i>FASEB Journal</i> , 2020, 34, 16693-16715.	0.5	47

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19	Antibody screening using a human iPSC-based blood-brain barrier model identifies antibodies that accumulate in the CNS. <i>FASEB Journal</i> , 2020, 34, 12549-12564.	0.5	17
20	Site-Directed Modification of Yeast-Produced Proteins Using Expressed Protein Ligation. <i>Methods in Molecular Biology</i> , 2020, 2133, 221-233.	0.9	0
21	An isogenic neurovascular unit model comprised of human induced pluripotent stem cell-derived brain microvascular endothelial cells, pericytes, astrocytes, and neurons. <i>Fluids and Barriers of the CNS</i> , 2019, 16, 25.	5.0	69
22	<i>Streptococcus agalactiae</i> disrupts P-glycoprotein function in brain endothelial cells. <i>Fluids and Barriers of the CNS</i> , 2019, 16, 26.	5.0	18
23	Past and Current Perspectives in Modeling Bacteria and Blood-Brain Barrier Interactions. <i>Frontiers in Microbiology</i> , 2019, 10, 1336.	3.5	13
24	Regionally specified human pluripotent stem cell-derived astrocytes exhibit different molecular signatures and functional properties. <i>Development (Cambridge)</i> , 2019, 146, .	2.5	48
25	Hypoxia-enhanced Blood-Brain Barrier Chip recapitulates human barrier function and shuttling of drugs and antibodies. <i>Nature Communications</i> , 2019, 10, 2621.	12.8	371
26	Induced Pluripotent Stem Cell-Derived Brain Endothelial Cells as a Cellular Model to Study <i>Neisseria meningitidis</i> Infection. <i>Frontiers in Microbiology</i> , 2019, 10, 1181.	3.5	39
27	Identification of variable lymphocyte receptors that can target therapeutics to pathologically exposed brain extracellular matrix. <i>Science Advances</i> , 2019, 5, eaau4245.	10.3	17
28	Human pluripotent stem cell-derived brain pericyte-like cells induce blood-brain barrier properties. <i>Science Advances</i> , 2019, 5, eaau7375.	10.3	135
29	Exploiting BBB disruption for the delivery of nanocarriers to the diseased CNS. <i>Current Opinion in Biotechnology</i> , 2019, 60, 146-152.	6.6	43
30	Directed Differentiation of Human Pluripotent Stem Cells to Podocytes under Defined Conditions. <i>Scientific Reports</i> , 2019, 9, 2765.	3.3	25
31	A yeast display immunoprecipitation screen for targeted discovery of antibodies against membrane protein complexes. <i>Protein Engineering, Design and Selection</i> , 2019, 32, 219-230.	2.1	3
32	Impacts of the α 1 Amino Acid on Yeast Production of Protein-Intein Fusions. <i>Biotechnology Progress</i> , 2019, 35, e2736.	2.6	2
33	Hyaluronan impairs the barrier integrity of brain microvascular endothelial cells through a CD44-dependent pathway. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2019, 39, 1759-1775.	4.3	43
34	Transthyretin Mimetics as Anti- β -Amyloid Agents: A Comparison of Peptide and Protein Approaches. <i>ChemMedChem</i> , 2018, 13, 968-979.	3.2	23
35	Site-Specific Antibody Functionalization Using Tetrazine-Styrene Cycloaddition. <i>Bioconjugate Chemistry</i> , 2018, 29, 1605-1613.	3.6	12
36	The variable lymphocyte receptor as an antibody alternative. <i>Current Opinion in Biotechnology</i> , 2018, 52, 74-79.	6.6	6

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37	Activation of RAR α , RAR β , or RXR α Increases Barrier Tightness in Human Induced Pluripotent Stem Cell-Derived Brain Endothelial Cells. <i>Biotechnology Journal</i> , 2018, 13, 1700093.	3.5	39
38	Modeling the blood-brain barrier: Beyond the endothelial cells. <i>Current Opinion in Biomedical Engineering</i> , 2018, 5, 6-12.	3.4	88
39	Coupling brain perfusion screens and next generation sequencing to identify blood-brain barrier binding antibodies. <i>AIChE Journal</i> , 2018, 64, 4229-4236.	3.6	12
40	Directed Evolution of Protein Thermal Stability Using Yeast Surface Display. <i>Methods in Molecular Biology</i> , 2017, 1575, 45-65.	0.9	24
41	Modeling Psychomotor Retardation using iPSCs from MCT8-Deficient Patients Indicates a Prominent Role for the Blood-Brain Barrier. <i>Cell Stem Cell</i> , 2017, 20, 831-843.e5.	11.1	181
42	Protein engineering approaches for regulating blood-brain barrier transcytosis. <i>Current Opinion in Structural Biology</i> , 2017, 45, 109-115.	5.7	49
43	An isogenic blood-brain barrier model comprising brain endothelial cells, astrocytes, and neurons derived from human induced pluripotent stem cells. <i>Journal of Neurochemistry</i> , 2017, 140, 874-888.	3.9	201
44	Modeling Group B <i>Streptococcus</i> and Blood-Brain Barrier Interaction by Using Induced Pluripotent Stem Cell-Derived Brain Endothelial Cells. <i>MSphere</i> , 2017, 2, .	2.9	46
45	Directed differentiation of human pluripotent stem cells to blood-brain barrier endothelial cells. <i>Science Advances</i> , 2017, 3, e1701679.	10.3	177
46	Yeast display biopanning identifies human antibodies targeting glioblastoma stem-like cells. <i>Scientific Reports</i> , 2017, 7, 15840.	3.3	18
47	In vitro models of the blood-brain barrier: An overview of commonly used brain endothelial cell culture models and guidelines for their use. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2016, 36, 862-890.	4.3	588
48	Protein engineering for improved yeast display and secretion of brain derived neurotrophic factor. <i>Biotechnology Journal</i> , 2016, 11, 425-436.	3.5	6
49	Analysis of Cancer-Targeting Alkylphosphocholine Analogue Permeability Characteristics Using a Human Induced Pluripotent Stem Cell Blood-Brain Barrier Model. <i>Molecular Pharmaceutics</i> , 2016, 13, 3341-3349.	4.6	36
50	Cryopreservation of Brain Endothelial Cells Derived from Human Induced Pluripotent Stem Cells Is Enhanced by Rho-Associated Coiled Coil-Containing Kinase Inhibition. <i>Tissue Engineering - Part C: Methods</i> , 2016, 22, 1085-1094.	2.1	24
51	Differentiation and characterization of human pluripotent stem cell-derived brain microvascular endothelial cells. <i>Methods</i> , 2016, 101, 93-102.	3.8	123
52	Introducing glycoprotein arrays: Facile production, purification and patterning of glycoproteins. <i>Biotechnology Journal</i> , 2015, 10, 20-21.	3.5	2
53	Exploring the effects of cell seeding density on the differentiation of human pluripotent stem cells to brain microvascular endothelial cells. <i>Fluids and Barriers of the CNS</i> , 2015, 12, 13.	5.0	106
54	Engineering an Anti-Transferrin Receptor ScFv for pH-Sensitive Binding Leads to Increased Intracellular Accumulation. <i>PLoS ONE</i> , 2015, 10, e0145820.	2.5	21

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55	Advances in microfluidic platforms for analyzing and regulating human pluripotent stem cells. <i>Current Opinion in Genetics and Development</i> , 2015, 34, 54-60.	3.3	18
56	Yeast Display-Based Antibody Affinity Maturation Using Detergent-Solubilized Cell Lysates. <i>Methods in Molecular Biology</i> , 2015, 1319, 65-78.	0.9	11
57	An Evolved Mxe GyrA Intein for Enhanced Production of Fusion Proteins. <i>ACS Chemical Biology</i> , 2015, 10, 527-538.	3.4	18
58	Targeting Receptor-Mediated Transport for Delivery of Biologics Across the Blood-Brain Barrier. <i>Annual Review of Pharmacology and Toxicology</i> , 2015, 55, 613-631.	9.4	291
59	Efficient Differentiation of Human Pluripotent Stem Cells to Endothelial Progenitors via Small-Molecule Activation of WNT Signaling. <i>Stem Cell Reports</i> , 2014, 3, 804-816.	4.8	271
60	Concise Review: Tissue-Specific Microvascular Endothelial Cells Derived From Human Pluripotent Stem Cells. <i>Stem Cells</i> , 2014, 32, 3037-3045.	3.2	60
61	Creation and evaluation of a single-chain antibody tetramer that targets brain endothelial cells. <i>AICHE Journal</i> , 2014, 60, 1245-1252.	3.6	7
62	Identifying blood-brain-barrier selective single-chain antibody fragments. <i>Biotechnology Journal</i> , 2014, 9, 664-674.	3.5	22
63	Liquid crystal droplet-based amplification of microvesicles that are shed by mammalian cells. <i>Analyst</i> , 2014, 139, 2386-2396.	3.5	13
64	Î±B-Crystallin: A Novel Regulator of Breast Cancer Metastasis to the Brain. <i>Clinical Cancer Research</i> , 2014, 20, 56-67.	7.0	87
65	Directed Evolution of Brain-Derived Neurotrophic Factor for Improved Folding and Expression in <i>Saccharomyces cerevisiae</i> . <i>Applied and Environmental Microbiology</i> , 2014, 80, 5732-5742.	3.1	26
66	A retinoic acid-enhanced, multicellular human blood-brain barrier model derived from stem cell sources. <i>Scientific Reports</i> , 2014, 4, 4160.	3.3	390
67	Combinatorial Approaches for the Identification of Brain Drug Delivery Targets. <i>Current Pharmaceutical Design</i> , 2014, 20, 1564-1576.	1.9	17
68	Modeling the blood-brain barrier using stem cell sources. <i>Fluids and Barriers of the CNS</i> , 2013, 10, 2.	5.0	105
69	Facile Chemical Functionalization of Proteins through Intein-Linked Yeast Display. <i>Bioconjugate Chemistry</i> , 2013, 24, 1634-1644.	3.6	17
70	Cells and cell lysates: A direct approach for engineering antibodies against membrane proteins using yeast surface display. <i>Methods</i> , 2013, 60, 27-37.	3.8	48
71	Antibody affinity maturation using yeast display with detergent-solubilized membrane proteins as antigen sources. <i>Protein Engineering, Design and Selection</i> , 2013, 26, 101-112.	2.1	18
72	Derivation of blood-brain barrier endothelial cells from human pluripotent stem cells. <i>Nature Biotechnology</i> , 2012, 30, 783-791.	17.5	623

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73	An enhanced approach for engineering thermally stable proteins using yeast display. <i>Protein Engineering, Design and Selection</i> , 2012, 25, 625-630.	2.1	13
74	Blood-brain barrier modeling with co-cultured neural progenitor cell-derived astrocytes and neurons. <i>Journal of Neurochemistry</i> , 2011, 119, 507-520.	3.9	76
75	Murine in vitro model of the blood-brain barrier for evaluating drug transport. <i>European Journal of Pharmaceutical Sciences</i> , 2011, 42, 148-155.	4.0	64
76	Identification and expression profiling of blood-brain barrier membrane proteins. <i>Journal of Neurochemistry</i> , 2010, 112, 625-635.	3.9	39
77	Antibody library screens using detergent-solubilized mammalian cell lysates as antigen sources. <i>Protein Engineering, Design and Selection</i> , 2010, 23, 567-577.	2.1	26
78	Development of GFP-based biosensors possessing the binding properties of antibodies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 11895-11900.	7.1	65
79	A yeast display immunoprecipitation method for efficient isolation and characterization of antigens. <i>Journal of Immunological Methods</i> , 2009, 341, 117-126.	1.4	28
80	Multiplex expression cloning of blood-brain barrier membrane proteins. <i>Proteomics</i> , 2009, 9, 1099-1108.	2.2	14
81	Increasing yeast secretion of heterologous proteins by regulating expression rates and post-secretory loss. <i>Biotechnology and Bioengineering</i> , 2008, 101, 1264-1275.	3.3	27
82	A Genomic Comparison of in vivo and in vitro Brain Microvascular Endothelial Cells. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2008, 28, 135-148.	4.3	97
83	Secretion and Surface Display of Green Fluorescent Protein Using the Yeast <i>Saccharomyces cerevisiae</i> . <i>Biotechnology Progress</i> , 2008, 21, 349-357.	2.6	62
84	Enhanced Secretion of Heterologous Proteins from Yeast by Overexpression of Ribosomal Subunit RPP0. <i>Biotechnology Progress</i> , 2008, 24, 748-756.	2.6	19
85	A Decade of Yeast Surface Display Technology: Where Are We Now?. <i>Combinatorial Chemistry and High Throughput Screening</i> , 2008, 11, 127-134.	1.1	161
86	A Novel High-Throughput Screen Reveals Yeast Genes That Increase Secretion of Heterologous Proteins. <i>Applied and Environmental Microbiology</i> , 2007, 73, 1189-1198.	3.1	105
87	Blood-Brain Barrier. , 2007, , 1124-1139.		1
88	Mining a yeast library for brain endothelial cell-binding antibodies. <i>Nature Methods</i> , 2007, 4, 143-145.	19.0	83
89	Differentiating embryonic neural progenitor cells induce blood-brain barrier properties. <i>Journal of Neurochemistry</i> , 2007, 101, 555-565.	3.9	97
90	Blood-Brain Barrier Transport of Therapeutics via Receptor-Mediation. <i>Pharmaceutical Research</i> , 2007, 24, 1759-1771.	3.5	431

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91	Puromycin-purified rat brain microvascular endothelial cell cultures exhibit improved barrier properties in response to glucocorticoid induction. <i>Journal of Neurochemistry</i> , 2006, 97, 922-933.	3.9	120
92	A Yeast Platform for the Production of Single-Chain Antibody-Green Fluorescent Protein Fusions. <i>Applied and Environmental Microbiology</i> , 2006, 72, 7748-7759.	3.1	30
93	Production of Soluble and Active Transferrin Receptor-Targeting Single-Chain Antibody using <i>Saccharomyces cerevisiae</i> . <i>Pharmaceutical Research</i> , 2006, 23, 790-797.	3.5	61
94	Blood-brain barrier genomics and proteomics: elucidating phenotype, identifying disease targets and enabling brain drug delivery. <i>Drug Discovery Today</i> , 2006, 11, 792-799.	6.4	49
95	The use of scFv-displaying yeast in mammalian cell surface selections. <i>Journal of Immunological Methods</i> , 2005, 304, 30-42.	1.4	74
96	Blood-brain barrier genomics, proteomics, and new transporter discovery. <i>NeuroRx</i> , 2005, 2, 151-161.	6.0	41
97	Blood-brain barrier genomics, proteomics, and new transporter discovery. <i>Neurotherapeutics</i> , 2005, 2, 151-161.	4.4	0
98	The Ro52/SS-A autoantigen has elevated expression at the brain microvasculature. <i>NeuroReport</i> , 2003, 14, 1861-1865.	1.2	21
99	Vascular Proteomics and Subtractive Antibody Expression Cloning. <i>Molecular and Cellular Proteomics</i> , 2002, 1, 75-82.	3.8	28
100	Subtractive Expression Cloning Reveals High Expression of CD46 at the Blood-Brain Barrier. <i>Journal of Neuropathology and Experimental Neurology</i> , 2002, 61, 597-604.	1.7	50
101	Vascular Genomics of the Human Brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2002, 22, 245-252.	4.3	58
102	High affinity T cell receptors from yeast display libraries block T cell activation by superantigens ¹¹ Edited by I. A. Wilson. <i>Journal of Molecular Biology</i> , 2001, 307, 1305-1315.	4.2	70
103	Directed evolution of a stable scaffold for T-cell receptor engineering. <i>Nature Biotechnology</i> , 2000, 18, 754-759.	17.5	234
104	Biosynthetic polypeptide libraries. <i>Current Opinion in Biotechnology</i> , 1999, 10, 117-122.	6.6	34
105	Yeast polypeptide fusion surface display levels predict thermal stability and soluble secretion efficiency ¹ Edited by J. A. Wells. <i>Journal of Molecular Biology</i> , 1999, 292, 949-956.	4.2	233
106	Increasing the secretory capacity of <i>Saccharomyces cerevisiae</i> for production of single-chain antibody fragments. <i>Nature Biotechnology</i> , 1998, 16, 773-777.	17.5	244