Eric V Shusta

List of Publications by Year in descending order

106 papers	8,047 citations	57719 44 h-index	51562 86 g-index
116 all docs	116 docs citations	116 times ranked	8203 citing authors

#	Article	IF	Citations
1	Intrinsic bloodâ€“brain barrier dysfunction contributes to multiple sclerosis pathogenesis. Brain, 2022, 145, 4334-4348.	3.7	37
2	Antibody-Targeted Liposomes for Enhanced Targeting of the Blood-Brain Barrier. Pharmaceutical Research, 2022, 39, 1523-1534.	1.7	8
3	Identification of lamprey variable lymphocyte receptors that target the brain vasculature. Scientific Reports, 2022, 12, 6044.	1.6	5
4	Identification of Brain ECM Binding Variable Lymphocyte Receptors Using Yeast Surface Display. Methods in Molecular Biology, 2022, 2491, 235-248.	0.4	2
5	Differentiation of Brain Pericyteâ€Like Cells from Human Pluripotent Stem Cellâ^'Derived Neural Crest. Current Protocols, 2021, 1, e21.	1.3	5
6	Comparative evaluation of isogenic mesodermal and ectomesodermal chondrocytes from human iPSCs for cartilage regeneration. Science Advances, 2021, 7, .	4.7	17
7	Integrative analysis of the human brain mural cell transcriptome. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 3052-3068.	2.4	15
8	Differentiation of human pluripotent stem cells to brain microvascular endothelial cell-like cells suitable to study immune cell interactions. STAR Protocols, 2021, 2, 100563.	0.5	14
9	A human three-dimensional neural-perivascular â€˜assembloidâ€™ promotes astrocytic development and enables modeling of SARS-CoV-2 neuropathology. Nature Medicine, 2021, 27, 1600-1606.	15.2	94
10	Integrating inÂvitro disease models of the neurovascular unit into discovery and development of neurotherapeutics. Current Opinion in Biomedical Engineering, 2021, 20, 100341.	1.8	2
11	Wnt signaling mediates acquisition of bloodâ€“brain barrier properties in naÃ¯ve endothelium derived from human pluripotent stem cells. ELife, 2021, 10, .	2.8	31
12	In vitro models of the blood-brain barrier: building in physiological complexity. Current Opinion in Chemical Engineering, 2020, 30, 42-52.	3.8	19
13	Neuronal Activity Regulates Blood-Brain Barrier Efflux Transport through Endothelial Circadian Genes. Neuron, 2020, 108, 937-952.e7.	3.8	86
14	Commentary on human pluripotent stem cell-based bloodâ€“brain barrier models. Fluids and Barriers of the CNS, 2020, 17, 64.	2.4	75
15	Bloodâ€“Brain Barrier Modulation to Improve Glioma Drug Delivery. Pharmaceutics, 2020, 12, 1085.	2.0	52
16	Transcriptomic comparison of human and mouse brain microvessels. Scientific Reports, 2020, 10, 12358.	1.6	89
17	Sonic Hedgehog Signaling in Cranial Neural Crest Cells Regulates Microvascular Morphogenesis in Facial Development. Frontiers in Cell and Developmental Biology, 2020, 8, 590539.	1.8	11
18	Advancing human induced pluripotent stem cellâ€derived bloodâ€brain barrier models for studying immune cell interactions. FASEB Journal, 2020, 34, 16693-16715.	0.2	47

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19	Antibody screening using a human iPSCâ€based bloodâ€brain barrier model identifies antibodies that accumulate in the CNS. FASEB Journal, 2020, 34, 12549-12564.	0.2	17
20	Site-Directed Modification of Yeast-Produced Proteins Using Expressed Protein Ligation. Methods in Molecular Biology, 2020, 2133, 221-233.	0.4	0
21	An isogenic neurovascular unit model comprised of human induced pluripotent stem cell-derived brain microvascular endothelial cells, pericytes, astrocytes, and neurons. Fluids and Barriers of the CNS, 2019, 16, 25.	2.4	69
22	Streptococcus agalactiae disrupts P-glycoprotein function in brain endothelial cells. Fluids and Barriers of the CNS, 2019, 16, 26.	2.4	18
23	Past and Current Perspectives in Modeling Bacteria and Bloodâ€“Brain Barrier Interactions. Frontiers in Microbiology, 2019, 10, 1336.	1.5	13
24	Regionally specified human pluripotent stem cell-derived astrocytes exhibit different molecular signatures and functional properties. Development (Cambridge), 2019, 146, .	1.2	48
25	Hypoxia-enhanced Blood-Brain Barrier Chip recapitulates human barrier function and shuttling of drugs and antibodies. Nature Communications, 2019, 10, 2621.	5.8	371
26	Induced Pluripotent Stem Cell-Derived Brain Endothelial Cells as a Cellular Model to Study Neisseria meningitidis Infection. Frontiers in Microbiology, 2019, 10, 1181.	1.5	39
27	Identification of variable lymphocyte receptors that can target therapeutics to pathologically exposed brain extracellular matrix. Science Advances, 2019, 5, eaau4245.	4.7	17
28	Human pluripotent stem cellâ€“derived brain pericyteâ€“like cells induce blood-brain barrier properties. Science Advances, 2019, 5, eaau7375.	4.7	135
29	Exploiting BBB disruption for the delivery of nanocarriers to the diseased CNS. Current Opinion in Biotechnology, 2019, 60, 146-152.	3.3	43
30	Directed Differentiation of Human Pluripotent Stem Cells to Podocytes under Defined Conditions. Scientific Reports, 2019, 9, 2765.	1.6	25
31	A yeast display immunoprecipitation screen for targeted discovery of antibodies against membrane protein complexes. Protein Engineering, Design and Selection, 2019, 32, 219-230.	1.0	3
32	Impacts of the â^'1 Amino Acid on Yeast Production of Proteinâ€Intein Fusions. Biotechnology Progress, 2019, 35, e2736.	1.3	2
33	Hyaluronan impairs the barrier integrity of brain microvascular endothelial cells through a CD44-dependent pathway. Journal of Cerebral Blood Flow and Metabolism, 2019, 39, 1759-1775.	2.4	43
34	Transthyretin Mimetics as Antiâ€Î²â€Amyloid Agents: Aâ€‰Comparison of Peptide and Protein Approaches. ChemMedChem, 2018, 13, 968-979.	1.6	23
35	Site-Specific Antibody Functionalization Using Tetrazineâ€“Styrene Cycloaddition. Bioconjugate Chemistry, 2018, 29, 1605-1613.	1.8	12
36	The variable lymphocyte receptor as an antibody alternative. Current Opinion in Biotechnology, 2018, 52, 74-79.	3.3	6

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37	Activation of RARÎ±, RARÎ³, or RXRÎ± Increases Barrier Tightness in Human Induced Pluripotent Stem Cellâ€Derived Brain Endothelial Cells. Biotechnology Journal, 2018, 13, 1700093.	1.8	39
38	Modeling the bloodâ€"brain barrier: Beyond the endothelial cells. Current Opinion in Biomedical Engineering, 2018, 5, 6-12.	1.8	88
39	Coupling brain perfusion screens and next generation sequencing to identify bloodâ€"brain barrier binding antibodies. AIChE Journal, 2018, 64, 4229-4236.	1.8	12
40	Directed Evolution of Protein Thermal Stability Using Yeast Surface Display. Methods in Molecular Biology, 2017, 1575, 45-65.	0.4	24
41	Modeling Psychomotor Retardation using iPSCs from MCT8-Deficient Patients Indicates a Prominent Role for the Blood-Brain Barrier. Cell Stem Cell, 2017, 20, 831-843.e5.	5.2	181
42	Protein engineering approaches for regulating bloodâ€"brain barrier transcytosis. Current Opinion in Structural Biology, 2017, 45, 109-115.	2.6	49
43	An isogenic bloodâ€"brain barrier model comprising brain endothelial cells, astrocytes, and neurons derived from human induced pluripotent stem cells. Journal of Neurochemistry, 2017, 140, 874-888.	2.1	201
44	Modeling Group B<i>Streptococcus</i>and Blood-Brain Barrier Interaction by Using Induced Pluripotent Stem Cell-Derived Brain Endothelial Cells. MSphere, 2017, 2, .	1.3	46
45	Directed differentiation of human pluripotent stem cells to blood-brain barrier endothelial cells. Science Advances, 2017, 3, e1701679.	4.7	177
46	Yeast display biopanning identifies human antibodies targeting glioblastoma stem-like cells. Scientific Reports, 2017, 7, 15840.	1.6	18
47	InÂvitro models of the bloodâ€"brain barrier: An overview of commonly used brain endothelial cell culture models and guidelines for their use. Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 862-890.	2.4	588
48	Proâ€region engineering for improved yeast display and secretion of brain derived neurotrophic factor. Biotechnology Journal, 2016, 11, 425-436.	1.8	6
49	Analysis of Cancer-Targeting Alkylphosphocholine Analogue Permeability Characteristics Using a Human Induced Pluripotent Stem Cell Bloodâ€"Brain Barrier Model. Molecular Pharmaceutics, 2016, 13, 3341-3349.	2.3	36
50	Cryopreservation of Brain Endothelial Cells Derived from Human Induced Pluripotent Stem Cells Is Enhanced by Rho-Associated Coiled Coil-Containing Kinase Inhibition. Tissue Engineering - Part C: Methods, 2016, 22, 1085-1094.	1.1	24
51	Differentiation and characterization of human pluripotent stem cell-derived brain microvascular endothelial cells. Methods, 2016, 101, 93-102.	1.9	123
52	Introducing glycophage arrays: Facile production, purification and patterning of glycophages. Biotechnology Journal, 2015, 10, 20-21.	1.8	2
53	Exploring the effects of cell seeding density on the differentiation of human pluripotent stem cells to brain microvascular endothelial cells. Fluids and Barriers of the CNS, 2015, 12, 13.	2.4	106
54	Engineering an Anti-Transferrin Receptor ScFv for pH-Sensitive Binding Leads to Increased Intracellular Accumulation. PLoS ONE, 2015, 10, e0145820.	1.1	21

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55	Advances in microfluidic platforms for analyzing and regulating human pluripotent stem cells. Current Opinion in Genetics and Development, 2015, 34, 54-60.	1.5	18
56	Yeast Display-Based Antibody Affinity Maturation Using Detergent-Solubilized Cell Lysates. Methods in Molecular Biology, 2015, 1319, 65-78.	0.4	11
57	An Evolved Mxe GyrA Intein for Enhanced Production of Fusion Proteins. ACS Chemical Biology, 2015, 10, 527-538.	1.6	18
58	Targeting Receptor-Mediated Transport for Delivery of Biologics Across the Blood-Brain Barrier. Annual Review of Pharmacology and Toxicology, 2015, 55, 613-631.	4.2	291
59	Efficient Differentiation of Human Pluripotent Stem Cells to Endothelial Progenitors via Small-Molecule Activation of WNT Signaling. Stem Cell Reports, 2014, 3, 804-816.	2.3	271
60	Concise Review: Tissue-Specific Microvascular Endothelial Cells Derived From Human Pluripotent Stem Cells. Stem Cells, 2014, 32, 3037-3045.	1.4	60
61	Creation and evaluation of a singleâ€chain antibody tetramer that targets brain endothelial cells. AIChE Journal, 2014, 60, 1245-1252.	1.8	7
62	Identifying blood-brain-barrier selective single-chain antibody fragments. Biotechnology Journal, 2014, 9, 664-674.	1.8	22
63	Liquid crystal droplet-based amplification of microvesicles that are shed by mammalian cells. Analyst, The, 2014, 139, 2386-2396.	1.7	13
64	Î±B-Crystallin: A Novel Regulator of Breast Cancer Metastasis to the Brain. Clinical Cancer Research, 2014, 20, 56-67.	3.2	87
65	Directed Evolution of Brain-Derived Neurotrophic Factor for Improved Folding and Expression in Saccharomyces cerevisiae. Applied and Environmental Microbiology, 2014, 80, 5732-5742.	1.4	26
66	A retinoic acid-enhanced, multicellular human blood-brain barrier model derived from stem cell sources. Scientific Reports, 2014, 4, 4160.	1.6	390
67	Combinatorial Approaches for the Identification of Brain Drug Delivery Targets. Current Pharmaceutical Design, 2014, 20, 1564-1576.	0.9	17
68	Modeling the bloodâ€“brain barrier using stem cell sources. Fluids and Barriers of the CNS, 2013, 10, 2.	2.4	105
69	Facile Chemical Functionalization of Proteins through Intein-Linked Yeast Display. Bioconjugate Chemistry, 2013, 24, 1634-1644.	1.8	17
70	Cells and cell lysates: A direct approach for engineering antibodies against membrane proteins using yeast surface display. Methods, 2013, 60, 27-37.	1.9	48
71	Antibody affinity maturation using yeast display with detergent-solubilized membrane proteins as antigen sources. Protein Engineering, Design and Selection, 2013, 26, 101-112.	1.0	18
72	Derivation of blood-brain barrier endothelial cells from human pluripotent stem cells. Nature Biotechnology, 2012, 30, 783-791.	9.4	623

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73	An enhanced approach for engineering thermally stable proteins using yeast display. Protein Engineering, Design and Selection, 2012, 25, 625-630.	1.0	13
74	Bloodâ€“brain barrier modeling with coâ€cultured neural progenitor cellâ€derived astrocytes and neurons. Journal of Neurochemistry, 2011, 119, 507-520.	2.1	76
75	Murine in vitro model of the bloodâ€“brain barrier for evaluating drug transport. European Journal of Pharmaceutical Sciences, 2011, 42, 148-155.	1.9	64
76	Identification and expression profiling of bloodâ€“brain barrier membrane proteins. Journal of Neurochemistry, 2010, 112, 625-635.	2.1	39
77	Antibody library screens using detergent-solubilized mammalian cell lysates as antigen sources. Protein Engineering, Design and Selection, 2010, 23, 567-577.	1.0	26
78	Development of GFP-based biosensors possessing the binding properties of antibodies. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11895-11900.	3.3	65
79	A yeast display immunoprecipitation method for efficient isolation and characterization of antigens. Journal of Immunological Methods, 2009, 341, 117-126.	0.6	28
80	Multiplex expression cloning of blood-brain barrier membrane proteins. Proteomics, 2009, 9, 1099-1108.	1.3	14
81	Increasing yeast secretion of heterologous proteins by regulating expression rates and postâ€secretory loss. Biotechnology and Bioengineering, 2008, 101, 1264-1275.	1.7	27
82	A Genomic Comparison of in vivo and in vitro Brain Microvascular Endothelial Cells. Journal of Cerebral Blood Flow and Metabolism, 2008, 28, 135-148.	2.4	97
83	Secretion and Surface Display of Green Fluorescent Protein Using the Yeast Saccharomyces cerevisiae. Biotechnology Progress, 2008, 21, 349-357.	1.3	62
84	Enhanced Secretion of Heterologous Proteins from Yeast by Overexpression of Ribosomal Subunit RPP0. Biotechnology Progress, 2008, 24, 748-756.	1.3	19
85	A Decade of Yeast Surface Display Technology: Where Are We Now?. Combinatorial Chemistry and High Throughput Screening, 2008, 11, 127-134.	0.6	161
86	A Novel High-Throughput Screen Reveals Yeast Genes That Increase Secretion of Heterologous Proteins. Applied and Environmental Microbiology, 2007, 73, 1189-1198.	1.4	105
87	Bloodâ€“Brain Barrier. , 2007, , 1124-1139.		1
88	Mining a yeast library for brain endothelial cell-binding antibodies. Nature Methods, 2007, 4, 143-145.	9.0	83
89	Differentiating embryonic neural progenitor cells induce blood?brain barrier properties. Journal of Neurochemistry, 2007, 101, 555-565.	2.1	97
90	Bloodâ€“Brain Barrier Transport of Therapeutics via Receptor-Mediation. Pharmaceutical Research, 2007, 24, 1759-1771.	1.7	431

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91	Puromycin-purified rat brain microvascular endothelial cell cultures exhibit improved barrier properties in response to glucocorticoid induction. Journal of Neurochemistry, 2006, 97, 922-933.	2.1	120
92	A Yeast Platform for the Production of Single-Chain Antibody-Green Fluorescent Protein Fusions. Applied and Environmental Microbiology, 2006, 72, 7748-7759.	1.4	30
93	Production of Soluble and Active Transferrin Receptor-Targeting Single-Chain Antibody using Saccharomyces cerevisiae. Pharmaceutical Research, 2006, 23, 790-797.	1.7	61
94	Bloodâ€"brain barrier genomics and proteomics: elucidating phenotype, identifying disease targets and enabling brain drug delivery. Drug Discovery Today, 2006, 11, 792-799.	3.2	49
95	The use of scFv-displaying yeast in mammalian cell surface selections. Journal of Immunological Methods, 2005, 304, 30-42.	0.6	74
96	Blood-brain barrier genomics, proteomics, and new transporter discovery. NeuroRx, 2005, 2, 151-161.	6.0	41
97	Blood-brain barrier genomics, proteomics, and new transporter discovery. Neurotherapeutics, 2005, 2, 151-161.	2.1	0
98	The Ro52/SS-A autoantigen has elevated expression at the brain microvasculature. NeuroReport, 2003, 14, 1861-1865.	0.6	21
99	Vascular Proteomics and Subtractive Antibody Expression Cloning. Molecular and Cellular Proteomics, 2002, 1, 75-82.	2.5	28
100	Subtractive Expression Cloning Reveals High Expression of CD46 at the Blood-Brain Barrier. Journal of Neuropathology and Experimental Neurology, 2002, 61, 597-604.	0.9	50
101	Vascular Genomics of the Human Brain. Journal of Cerebral Blood Flow and Metabolism, 2002, 22, 245-252.	2.4	58
102	High affinity T cell receptors from yeast display libraries block T cell activation by superantigens11Edited by I. A. Wilson. Journal of Molecular Biology, 2001, 307, 1305-1315.	2.0	70
103	Directed evolution of a stable scaffold for T-cell receptor engineering. Nature Biotechnology, 2000, 18, 754-759.	9.4	234
104	Biosynthetic polypeptide libraries. Current Opinion in Biotechnology, 1999, 10, 117-122.	3.3	34
105	Yeast polypeptide fusion surface display levels predict thermal stability and soluble secretion efficiency 1 1Edited by J. A. Wells. Journal of Molecular Biology, 1999, 292, 949-956.	2.0	233
106	Increasing the secretory capacity of Saccharomyces cerevisiae for production of single-chain antibody fragments. Nature Biotechnology, 1998, 16, 773-777.	9.4	244