William P Sheffield

List of Publications by Year
in descending order

116 papers	1,828 citations	304743 22 h-index	345221 36 g-index
122 all docs	122 docs citations	122 times ranked	1742 citing authors

#	Article	IF	Citations
1	Challenging the 30â€min rule for thawed plasma. Vox Sanguinis, 2022, 117, 328-336.	1.5	3
2	Rejuvenated and safe: Freezeâ€dried plasma for the 21st century. Transfusion, 2022, 62, 257-260.	1.6	2
3	Inductively-Coupled Plasma Mass Spectrometryâ€“Novel Insights From an Old Technology Into Stressed Red Blood Cell Physiology. Frontiers in Physiology, 2022, 13, 828087.	2.8	5
4	Retention of hemostatic and immunological properties of frozen plasma and <scp>COVID</scp>â€19 convalescent apheresis freshâ€frozen plasma produced and freezeâ€dried in Canada. Transfusion, 2022, 62, 418-428.	1.6	14
5	Spotlight on animal models of acute traumatic coagulopathy: An update. Transfusion and Apheresis Science, 2022, , 103412.	1.0	6
6	Minimal impact of anticoagulant on in vitro whole blood quality throughout a 35â€day coldâ€storage regardless of leukoreduction timing. Transfusion, 2022, 62, .	1.6	2
7	Stepwise Reversion of Multiply Mutated Recombinant Antitrypsin Reveals a Selective Inhibitor of Coagulation Factor XIa as Active as the M358R Variant. Frontiers in Cardiovascular Medicine, 2021, 8, 647405.	2.4	1
8	Identification of an alpha-1 antitrypsin variant with enhanced specificity for factor XIa by phage display, bacterial expression, and combinatorial mutagenesis. Scientific Reports, 2021, 11, 5565.	3.3	4
9	Selection and in vitro and in vivo characterization of a Kunitz protease inhibitor domain of protease nexin 2 variant that inhibits factor XIa without inhibiting plasmin. Journal of Biotechnology, 2021, 330, 61-69.	3.8	3
10	Pathogen reduction of whole blood: Supplementing fibrinogen partly corrects clot formation in a massive transfusion model. Transfusion, 2021, 61, 1884-1893.	1.6	0
11	Coldâ€stored leukoreduced whole blood: Extending the time between donation and filtration has minimal impact on in vitro quality. Transfusion, 2021, 61, S131-S143.	1.6	5
12	Blood bank storage of red blood cells increases RBC cytoplasmic membrane order and bending rigidity. PLoS ONE, 2021, 16, e0259267.	2.5	18
13	Engineering the serpin Î±₁â€antitrypsin: A diversity of goals and techniques. Protein Science, 2020, 29, 856-871.	7.6	20
14	Stabilization of Lipid Membranes through Partitioning of the Blood Bag Plasticizer Di-2-ethylhexyl phthalate (DEHP). Langmuir, 2020, 36, 11899-11907.	3.5	15
15	Thrombospondin-1/CD47 signaling modulates transmembrane cation conductance, survival, and deformability of human red blood cells. Cell Communication and Signaling, 2020, 18, 155.	6.5	14
16	Decoding the metabolic landscape of pathophysiological stress-induced cell death in anucleate red blood cells. Blood Transfusion, 2020, 18, 130-142.	0.4	18
17	Prothrombin, alone or in complex concentrates or plasma, reduces bleeding in a mouse model of blood exchange-induced coagulopathy. Scientific Reports, 2019, 9, 13029.	3.3	3
18	Bacterial neuraminidaseâ€mediated erythrocyte desialylation provokes cell surface aminophospholipid exposure. European Journal of Haematology, 2018, 100, 502-510.	2.2	8

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19	Thromboelastometry reveals similar hemostatic properties of purified fibrinogen and a mixture of purified cryoprecipitate protein components. Clinical Chemistry and Laboratory Medicine, 2018, 56, e210-e213.	2.3	0
20	Fusion to Human Serum Albumin Extends the Circulatory Half-Life and Duration of Antithrombotic Action of the Kunitz Protease Inhibitor Domain of Protease Nexin 2. Cellular Physiology and Biochemistry, 2018, 45, 772-782.	1.6	8
21	Red blood cells, still vital after all these years: Commentary on Canadian Blood Servicesâ€™ International Symposium 2017. Transfusion and Apheresis Science, 2018, 57, 298-303.	1.0	1
22	A factor XIa-activatable hirudin-albumin fusion protein reduces thrombosis in mice without promoting blood loss. BMC Biotechnology, 2018, 18, 21.	3.3	7
23	Extending the pre-processing holding time of whole blood beyond 48â€‰h reduces coagulation FVIII activity and immunoglobulin G content of recovered plasma. Transfusion and Apheresis Science, 2018, 57, 768-772.	1.0	0
24	Serpin Phage Display: The Use of a T7 System to Probe Reactive Center Loop Libraries with Different Serine Proteinases. Methods in Molecular Biology, 2018, 1826, 41-64.	0.9	4
25	Intersecting Worlds of Transfusion and Transplantation Medicine: An International Symposium Organized by the Canadian Blood Services Centre for Innovation. Transfusion Medicine Reviews, 2017, 31, 183-192.	2.0	4
26	Bacteria can proliferate in thawed cryoprecipitate stored at room temperature for longer than 4Âh. Vox Sanguinis, 2017, 112, 477-479.	1.5	12
27	Comparison of bacterial attachment to platelet bags with and without preconditioning with plasma. Vox Sanguinis, 2017, 112, 401-407.	1.5	8
28	Selection and characterization of a DNA aptamer inhibiting coagulation factor XIa. Scientific Reports, 2017, 7, 2102.	3.3	37
29	Early Î³â€irradiation and subsequent storage of red cells in <scp>SAG</scp>â€M additive solution potentiate energy imbalance, microvesiculation and susceptibility to stressâ€induced apoptotic cell death. Vox Sanguinis, 2017, 112, 480-483.	1.5	21
30	Pathogen inactivation by riboflavin and ultraviolet light illumination accelerates the red blood cell storage lesion and promotes eryptosis. Transfusion, 2017, 57, 661-673.	1.6	33
31	Quality and Safety of Blood Products. Journal of Blood Transfusion, 2016, 2016, 1-2.	3.3	11
32	Quality Assessment of Established and Emerging Blood Components for Transfusion. Journal of Blood Transfusion, 2016, 2016, 1-28.	3.3	57
33	Stability of Thawed Apheresis Fresh-Frozen Plasma Stored for up to 120 Hours at 1Â°C to 6Â°C. Journal of Blood Transfusion, 2016, 2016, 1-7.	3.3	11
34	The M358R variant of Î± 1 -proteinase inhibitor inhibits coagulation factor VIIa. Biochemical and Biophysical Research Communications, 2016, 470, 710-713.	2.1	4
35	Stability of coagulation protein activities in single units or pools of cryoprecipitate during storage at 20â€“24Â°C for up to 24Âh. Vox Sanguinis, 2016, 110, 12-19.	1.5	15
36	Phosphatidylserine externalization and procoagulant activation of erythrocytes induced by Pseudomonas aeruginosa virulence factor pyocyanin. Journal of Cellular and Molecular Medicine, 2016, 20, 710-720.	3.6	81

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37	Monovalent Fc receptor blockade by an antiâ€“FcÎ³ receptor/albumin fusion protein ameliorates murine ITP with abrogated toxicity. Blood, 2016, 127, 132-138.	1.4	23
38	Thrombolysis by chemically modified coagulation factor Xa. Journal of Thrombosis and Haemostasis, 2016, 14, 1844-1854.	3.8	6
39	CD44 Antibody Inhibition of Macrophage Phagocytosis Targets FcÎ³ Receptorâ€“ and Complement Receptor 3â€“Dependent Mechanisms. Journal of Immunology, 2016, 196, 3331-3340.	0.8	25
40	Accelerated apoptotic death and in vivo turnover of erythrocytes in mice lacking functional mitogen- and stress-activated kinase MSK1/2. Scientific Reports, 2015, 5, 17316.	3.3	49
41	Fluorous Analogue of Chloramine-T: Preparation, X-ray Structure Determination, and Use as an Oxidant for Radioiodination and s-Tetrazine Synthesis. Journal of Organic Chemistry, 2015, 80, 7117-7125.	3.2	13
42	Comparison of mammalian and bacterial expression library screening to detect recombinant alpha-1 proteinase inhibitor variants with enhanced thrombin inhibitory capacityâ˜†. Journal of Biotechnology, 2015, 208, 54-62.	3.8	1
43	A plasmin-activatable thrombin inhibitor reduces experimental thrombosis and assists experimental thrombolysis in murine models. Journal of Thrombosis and Thrombolysis, 2015, 39, 443-451.	2.1	8
44	Whole blood treated with riboflavin and ultraviolet light: quality assessment of all blood components produced by the buffy coat method. Transfusion, 2015, 55, 815-823.	1.6	33
45	The fibrinogen but not the <scp>F</scp>actor <scp>VIII</scp> content of transfused plasma determines its effectiveness at reducing bleeding in coagulopathic mice. Transfusion, 2015, 55, 1040-1050.	1.6	8
46	Stability of relevant plasma protein activities in cryosupernatant plasma units during refrigerated storage for up to 5 days postthaw. Transfusion, 2014, 54, 418-425.	1.6	9
47	Alphaâ€1 Acid Glycoprotein Reduces Hepatic Leukocyte Recruitment in Murine Models of Either Early Endotoxemia or Early Sepsis. Microcirculation, 2014, 21, 74-83.	1.8	9
48	Î³Tâ€Š195A thrombin reduces the anticoagulant effects of dabigatran in vitro and in vivo. Journal of Thrombosis and Haemostasis, 2014, 12, 1110-1115.	3.8	14
49	Alpha-1 proteinase inhibitor M358R reduces thrombin generation when displayed on the surface of cells expressing tissue factor. Thrombosis Research, 2014, 134, 1142-1149.	1.7	1
50	Phage Display of the Serpin Alpha-1 Proteinase Inhibitor Randomized at Consecutive Residues in the Reactive Centre Loop and Biopanned with or without Thrombin. PLoS ONE, 2014, 9, e84491.	2.5	13
51	The complete N-terminal extension of heparin cofactor II is required for maximal effectiveness as a thrombin exosite 1 ligand. BMC Biochemistry, 2013, 14, 6.	4.4	5
52	Expression screening of bacterial libraries of recombinant alpha-1 proteinase inhibitor variants for candidates with thrombin inhibitory capacity. Journal of Biotechnology, 2013, 168, 373-381.	3.8	5
53	Fusion of the C-terminal triskaidecapeptide of hirudin variant 3 to alpha1-proteinase inhibitor M358R increases the serpin-mediated rate of thrombin inhibition. BMC Biochemistry, 2013, 14, 31.	4.4	3
54	Quality of frozen transfusable plasma prepared from whole blood donations in Canada: An update. Transfusion and Apheresis Science, 2013, 49, 440-446.	1.0	10

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55	Process Improvement by Eliminating Mixing of Whole Blood Units after an Overnight Hold Prior to Component Production Using the Buffy Coat Method. Journal of Blood Transfusion, 2013, 2013, 1-7.	3.3	5
56	Covalent Stabilization Of Coagulation Factor Xa Enhances Its Fibrinolytic Function In Vitro and In Vivo: A Novel Cofactor-Based Thrombolytic Agent. Blood, 2013, 122, 204-204.	1.4	0
57	In VivoClearance of Alpha-1 Acid Glycoprotein Is Influenced by the Extent of Its N-Linked Glycosylation and by Its Interaction with the Vessel Wall. Journal of Biomedicine and Biotechnology, 2012, 2012, 1-11.	3.0	10
58	Reduction of thrombus size in murine models of thrombosis following administration of recombinant Î±1-proteinase inhibitor mutant proteins. Thrombosis and Haemostasis, 2012, 107, 972-984.	3.4	17
59	Prothrombin complex concentrates reduce blood loss in murine coagulopathy induced by warfarin, but not in that induced by dabigatran etexilate. Journal of Thrombosis and Haemostasis, 2012, 10, 1830-1840.	3.8	89
60	Changes in coagulation factor activity and content of di(2â€ethylhexyl)phthalate in frozen plasma units during refrigerated storage for up to five days after thawing. Transfusion, 2012, 52, 493-502.	1.6	29
61	Characterization of a long-acting recombinant human serum albumin-atrial natriuretic factor (ANF) expressed in Pichia pastoris. Regulatory Peptides, 2012, 175, 7-10.	1.9	24
62	Lipoprotein enrichment in orange insoluble particulate matter reproducibly appearing in cryoprecipitate. Vox Sanguinis, 2011, 100, 422-425.	1.5	0
63	Retention of thrombin inhibitory activity by recombinant serpins expressed as integral membrane proteins tethered to the surface of mammalian cells. Journal of Thrombosis and Haemostasis, 2011, 9, 2424-2435.	3.8	6
64	Incorporation of albumin fusion proteins into fibrin clots in vitro and in vivo: comparison of different fusion motifs recognized by factor XIIIa. BMC Biotechnology, 2011, 11, 127.	3.3	8
65	Comparison of Methods for the Purification of Alpha-1 Acid Glycoprotein from Human Plasma. Journal of Biomedicine and Biotechnology, 2011, 2011, 1-9.	3.0	5
66	Sporadic formation of cryoprecipitateâ€like particulate matter in thawed freshâ€frozen plasma units. Transfusion, 2010, 50, 949-950.	1.6	2
67	Conversion to the buffy coat method and quality of frozen plasma derived from whole blood donations in Canada. Transfusion, 2010, 50, 1043-1049.	1.6	22
68	A long-lasting, plasmin-activatable thrombin inhibitor aids clot lysis in vitro and does not promote bleeding in vivo. Thrombosis and Haemostasis, 2009, 101, 867-877.	3.4	19
69	Addition of a sequence from Î±2-antiplasmin transforms human serum albumin into a blood clot component that speeds clot lysis. BMC Biotechnology, 2009, 9, 15.	3.3	10
70	A long-lasting, plasmin-activatable thrombin inhibitor aids clot lysis in vitro and does not promote bleeding in vivo. Thrombosis and Haemostasis, 2009, 101, 867-77.	3.4	5
71	Factor VIIa gets even bigger. Thrombosis and Haemostasis, 2008, 99, 653-654.	3.4	0
72	Combined administration of barbourinâ€“albumin and hirudinâ€“albumin fusion proteins limits fibrin(ogen) deposition on the rabbit balloon-injured aorta. Thrombosis Research, 2007, 119, 195-207.	1.7	10

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73	The appended tail region of heparin cofactor II and additional reactive centre loop mutations combine to increase the reactivity and specificity of Î±1-proteinase inhibitor M358R for thrombin. Thrombosis and Haemostasis, 2007, 98, 1014-1023.	3.4	12
74	The appended tail region of heparin cofactor II and additional reactive centre loop mutations combine to increase the reactivity and specificity of alpha1-proteinase inhibitor M358R for thrombin. Thrombosis and Haemostasis, 2007, 98, 1014-23.	3.4	6
75	The Transferable Tail:Â Fusion of the N-Terminal Acidic Extension of Heparin Cofactor II to Î±1-Proteinase Inhibitor M358R Specifically Increases the Rate of Thrombin Inhibitionâ€. Biochemistry, 2006, 45, 11444-11452.	2.5	13
76	Investigating serpinâ€“enzyme complex formation and stability via single and multiple residue reactive centre loop substitutions in heparin cofactor II. Thrombosis Research, 2006, 117, 447-461.	1.7	11
77	Detection of antibodies reacting with the antithetical duffy blood group antigens Fya and Fyb using recombinant fusion proteins containing the duffy extracellular domain. Transfusion and Apheresis Science, 2006, 35, 207-216.	1.0	5
78	Molecular cloning and functional expression of rabbit Î±2-antiplasmin. Blood Coagulation and Fibrinolysis, 2006, 17, 283-291.	1.0	3
79	An important role for the activation peptide domain in controlling factor IX levels in the blood of haemophilia B mice. Thrombosis and Haemostasis, 2005, 94, 1138-1147.	3.4	25
80	Recombinant albumins containing additional peptide sequences smaller than barbourin retain the ability of barbourin-albumin to inhibit platelet aggregation. Thrombosis and Haemostasis, 2005, 93, 914-921.	3.4	11
81	Fusion to Albumin as a Means to Slow the Clearance of Small Therapeutic Proteins Using the <I>Pichia pastoris</I> Expression System: A Case Study. , 2005, 308, 145-154.		11
82	Effects of genetic fusion of factor IX to albumin on in vivo clearance in mice and rabbits. British Journal of Haematology, 2004, 126, 565-573.	2.5	29
83	A covalently linked recombinant albumin dimer is more rapidly cleared in vivo than are wild-type and mutant C34A albumin. Translational Research, 2004, 143, 115-124.	2.3	19
84	Full or Partial Substitution of the Reactive Center Loop of Î±-1-Proteinase Inhibitor by that of Heparin Cofactor II:â€‰ P1 Arg Is Required for Maximal Thrombin Inhibition. Biochemistry, 2004, 43, 14864-14872.	2.5	25
85	Heparin cofactor II is more sensitive than antithrombin to secretory impairment arising from mutations introduced into its carboxy-terminal region. Thrombosis Research, 2004, 113, 163-173.	1.7	5
86	Altering Heparin Cofactor II at VAL439 (P6) either Impairs Inhibition of Thrombin or Confers Elastase Resistance. Thrombosis and Haemostasis, 2002, 88, 89-97.	3.4	13
87	Altering heparin cofactor II at VAL439 (P6) either impairs inhibition of thrombin or confers elastase resistance. Thrombosis and Haemostasis, 2002, 88, 89-97.	3.4	3
88	A Barbourin-albumin Fusion Protein that Is Slowly Cleared In Vivo Retains the Ability to Inhibit Platelet Aggregation In Vitro. Thrombosis and Haemostasis, 2001, 86, 902-908.	3.4	34
89	Prolonged in vivo anticoagulant activity of a hirudinâ€“albumin fusion protein secreted from Pichia pastoris. Blood Coagulation and Fibrinolysis, 2001, 12, 433-443.	1.0	26
90	Modification of Clearance of Therapeutic and Potentially Therapeutic Proteins. Current Drug Targets Cardiovascular & Haematological Disorders, 2001, 1, 1-22.	2.0	28

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91	A barbourin-albumin fusion protein that is slowly cleared in vivo retains the ability to inhibit platelet aggregation in vitro. Thrombosis and Haemostasis, 2001, 86, 902-8.	3.4	7
92	Mutation of Any Site of N-Linked Glycosylation Accelerates the In Vivo Clearance of Recombinant Rabbit Antithrombin. Thrombosis Research, 2000, 99, 407-415.	1.7	19
93	Modulation of Clearance of Recombinant Serum Albumin by Either Glycosylation or Truncation. Thrombosis Research, 2000, 99, 613-621.	1.7	27
94	The clearance of thrombin-antithrombin and related serpin-enzyme complexes from the circulation: role of various hepatocyte receptors. Thrombosis and Haemostasis, 1999, 81, 325-37.	3.4	4
95	Cytokeratin 18 Is Expressed on the Hepatocyte Plasma Membrane Surface and Interacts with Thrombin-Antithrombin Complexes. Journal of Biological Chemistry, 1997, 272, 28574-28581.	3.4	56
96	IMPACT OF MUTATIONS AT THE P4 AND P5 POSITIONS ON THE REACTION OF ANTITHROMBIN WITH THROMBIN AND ELASTASE. Thrombosis Research, 1997, 88, 171-181.	1.7	5
97	Potent Antithrombin Activity and Delayed Clearance From the Circulation Characterize Recombinant Hirudin Genetically Fused to Albumin. Blood, 1997, 89, 3243-3252.	1.4	102
98	Concepts and techniques in molecular biologyâ€"An overview*. Transfusion Medicine Reviews, 1997, 11, 209-223.	2.0	0
99	Potent antithrombin activity and delayed clearance from the circulation characterize recombinant hirudin genetically fused to albumin. Blood, 1997, 89, 3243-52.	1.4	20
100	INHIBITION OF THROMBIN BY HIRUDIN GENETICALLY FUSED TO WILD-TYPE OR MUTANT ANTITHROMBIN. Thrombosis Research, 1996, 84, 419-429.	1.7	2
101	Deletion mutagenesis of heparin cofactor II: defining the minimum size of a thrombin inhibiting serpin. FEBS Letters, 1995, 365, 189-192.	2.8	10
102	Genetic linkage studies in antithrombin-deficient kindreds using a highly polymorphic trinucleotide short tandem repeat (str) within the human antithrombin gene. American Journal of Hematology, 1994, 46, 107-111.	4.1	4
103	Site-directed mutagenesis of the P2 residue of human antithrombin. FEBS Letters, 1994, 339, 147-150.	2.8	13
104	Characterization of a highly polymorphic trinucleotide short tandem repeat within the human antithrombin gene. Thrombosis Research, 1994, 74, 303-307.	1.7	2
105	Amino acid substitutions of the P2 residue of human antithrombin that either enhance or impair function. Thrombosis Research, 1994, 75, 293-305.	1.7	12
106	Molecular Cloning and Expression of Rabbit Heparin Cofactor II: A Plasma Thrombin Inhibitor Highly Conserved between Species. Thrombosis and Haemostasis, 1994, 71, 778-782.	3.4	10
107	Molecular cloning and expression of rabbit heparin cofactor II: a plasma thrombin inhibitor highly conserved between species. Thrombosis and Haemostasis, 1994, 71, 778-82.	3.4	0
108	Complete nucleotide sequence of the cdna encoding rabbit coagulation factor VII. Thrombosis Research, 1993, 69, 231-238.	1.7	14

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109	Molecular cloning and cell-free expression of mouse antithrombin III. Thrombosis and Haemostasis, 1992, 68, 291-6.	3.4	6
110	Mitochondrial precursor protein. Effects of 70-kilodalton heat shock protein on polypeptide folding, aggregation, and import competence. Journal of Biological Chemistry, 1990, 265, 11069-76.	3.4	138
111	Import of precursor proteins into mitochondria: site of polypeptide unfolding. Journal of Biological Chemistry, 1990, 265, 9444-51.	3.4	26
112	Regulation of ornithine aminotransferase in retinoblastomas. Journal of Biological Chemistry, 1989, 264, 20513-7.	3.4	9
113	Identification of hydrophobic residues in the signal sequence of mitochondrial preornithine carbamyltransferase that enhance the rate of precursor import.. Journal of Biological Chemistry, 1988, 263, 17233-17236.	3.4	15
114	Identification of hydrophobic residues in the signal sequence of mitochondrial preornithine carbamyltransferase that enhance the rate of precursor import. Journal of Biological Chemistry, 1988, 263, 17233-6.	3.4	11
115	A signal sequence domain essential for processing, but not import, of mitochondrial pre-ornithine carbamyl transferase.. Journal of Cell Biology, 1987, 104, 1193-1198.	5.2	29
116	Expression in Escherichiacoli of functional precursor to the rat liver mitochondrial enzyme, ornithine carbamyl transferase. Precursor import and processing in vitro. Biochemical and Biophysical Research Communications, 1986, 134, 21-28.	2.1	12