

Zuben E Sauna

List of Publications by Year in descending order

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89
papers

8,621
citations

81900

39
h-index

56724

83
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93
all docs

93
docs citations

93
times ranked

11955
citing authors

#	ARTICLE	IF	CITATIONS
1	A "Silent" Polymorphism in the <i>MDR1</i> Gene Changes Substrate Specificity. <i>Science</i> , 2007, 315, 525-528.	12.6	2,230
2	P-glycoprotein: from genomics to mechanism. <i>Oncogene</i> , 2003, 22, 7468-7485.	5.9	956
3	Understanding the contribution of synonymous mutations to human disease. <i>Nature Reviews Genetics</i> , 2011, 12, 683-691.	16.3	815
4	Recent advances in (therapeutic protein) drug development. <i>F1000Research</i> , 2017, 6, 113.	1.6	348
5	Exposing synonymous mutations. <i>Trends in Genetics</i> , 2014, 30, 308-321.	6.7	272
6	Synonymous Mutations and Ribosome Stalling Can Lead to Altered Folding Pathways and Distinct Minima. <i>Journal of Molecular Biology</i> , 2008, 383, 281-291.	4.2	230
7	Silent Polymorphisms Speak: How They Affect Pharmacogenomics and the Treatment of Cancer. <i>Cancer Research</i> , 2007, 67, 9609-9612.	0.9	219
8	Silent (Synonymous) SNPs: Should We Care About Them?. <i>Methods in Molecular Biology</i> , 2009, 578, 23-39.	0.9	214
9	The power of the pump: Mechanisms of action of P-glycoprotein (ABCB1). <i>European Journal of Pharmaceutical Sciences</i> , 2006, 27, 392-400.	4.0	196
10	Prevalence of Pre-existing Antibodies to CRISPR-Associated Nuclease Cas9 in the USA Population. <i>Molecular Therapy - Methods and Clinical Development</i> , 2018, 10, 105-112.	4.1	181
11	Selective Toxicity of NSC73306 in MDR1-Positive Cells as a New Strategy to Circumvent Multidrug Resistance in Cancer. <i>Cancer Research</i> , 2006, 66, 4808-4815.	0.9	162
12	The A-loop, a novel conserved aromatic acid subdomain upstream of the Walker A motif in ABC transporters, is critical for ATP binding. <i>FEBS Letters</i> , 2006, 580, 1049-1055.	2.8	146
13	Fc fusion as a platform technology: potential for modulating immunogenicity. <i>Trends in Biotechnology</i> , 2015, 33, 27-34.	9.3	135
14	About a switch: how P-glycoprotein (ABCB1) harnesses the energy of ATP binding and hydrolysis to do mechanical work. <i>Molecular Cancer Therapeutics</i> , 2007, 6, 13-23.	4.1	132
15	Importance of the Conserved Walker B Glutamate Residues, 556 and 1201, for the Completion of the Catalytic Cycle of ATP Hydrolysis by Human P-glycoprotein (ABCB1). <i>Biochemistry</i> , 2002, 41, 13989-14000.	2.5	99
16	Large scale analysis of the mutational landscape in HT-SELEX improves aptamer discovery. <i>Nucleic Acids Research</i> , 2015, 43, 5699-5707.	14.5	97
17	Mutational Analysis of ABCG2: Role of the GXXXG Motif. <i>Biochemistry</i> , 2004, 43, 9448-9456.	2.5	96
18	Catalytic Cycle of ATP Hydrolysis by P-Glycoprotein: Evidence for Formation of the E _S Reaction Intermediate with ATP- ¹³ S, a Nonhydrolyzable Analogue of ATP. <i>Biochemistry</i> , 2007, 46, 13787-13799.	2.5	95

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19	Immunogenicity assessment during the development of protein therapeutics. <i>Journal of Pharmacy and Pharmacology</i> , 2018, 70, 584-594.	2.4	94
20	The Molecular Basis of the Action of Disulfiram as a Modulator of the Multidrug Resistance-Linked ATP Binding Cassette Transporters MDR1 (ABCB1) and MRP1 (ABCC1). <i>Molecular Pharmacology</i> , 2004, 65, 675-684.	2.3	91
21	Disulfiram, an old drug with new potential therapeutic uses for human cancers and fungal infections. <i>Molecular BioSystems</i> , 2005, 1, 127.	2.9	90
22	A novel way to spread drug resistance in tumor cells: functional intercellular transfer of P-glycoprotein (ABCB1). <i>Trends in Pharmacological Sciences</i> , 2005, 26, 385-387.	8.7	86
23	Identification of sequence-structure RNA binding motifs for SELEX-derived aptamers. <i>Bioinformatics</i> , 2012, 28, i215-i223.	4.1	85
24	Evaluating and Mitigating the Immunogenicity of Therapeutic Proteins. <i>Trends in Biotechnology</i> , 2018, 36, 1068-1084.	9.3	79
25	Building better drugs: developing and regulating engineered therapeutic proteins. <i>Trends in Pharmacological Sciences</i> , 2013, 34, 534-548.	8.7	77
26	Genomics and the mechanism of P-glycoprotein (ABCB1). <i>Journal of Bioenergetics and Biomembranes</i> , 2007, 39, 481-487.	2.3	76
27	AptaCluster – A Method to Cluster HT-SELEX Aptamer Pools and Lessons from Its Application. <i>Lecture Notes in Computer Science</i> , 2014, 8394, 115-128.	1.3	71
28	Single synonymous mutation in factor IX alters protein properties and underlies haemophilia B. <i>Journal of Medical Genetics</i> , 2017, 54, 338-345.	3.2	66
29	Characterization of Coding Synonymous and Non-Synonymous Variants in ADAMTS13 Using Ex Vivo and In Silico Approaches. <i>PLoS ONE</i> , 2012, 7, e38864.	2.5	61
30	Mutations Define Cross-talk between the N-terminal Nucleotide-binding Domain and Transmembrane Helix-2 of the Yeast Multidrug Transporter Pdr5. <i>Journal of Biological Chemistry</i> , 2008, 283, 35010-35022.	3.4	60
31	Endogenous factor VIII synthesis from the intron 22-inverted F8 locus may modulate the immunogenicity of replacement therapy for hemophilia A. <i>Nature Medicine</i> , 2013, 19, 1318-1324.	30.7	59
32	Biochemical Basis of Polyvalency as a Strategy for Enhancing the Efficacy of P-Glycoprotein (ABCB1) Modulators: Stipiamide Homodimers Separated with Defined-Length Spacers Reverse Drug Efflux with Greater Efficacy. <i>Biochemistry</i> , 2004, 43, 2262-2271.	2.5	58
33	Post hoc assessment of the immunogenicity of bioengineered factor VIIa demonstrates the use of preclinical tools. <i>Science Translational Medicine</i> , 2017, 9, .	12.4	57
34	The Conserved Tyrosine Residues 401 and 1044 in ATP Sites of Human P-Glycoprotein Are Critical for ATP Binding and Hydrolysis: Evidence for a Conserved Subdomain, the A-Loop in the ATP-Binding Cassette. <i>Biochemistry</i> , 2006, 45, 7605-7616.	2.5	56
35	Disulfiram is a potent modulator of multidrug transporter Cdr1p of <i>Candida albicans</i> . <i>Biochemical and Biophysical Research Communications</i> , 2004, 322, 520-525.	2.1	53
36	Complete Inhibition of the Pdr5p Multidrug Efflux Pump ATPase Activity by Its Transport Substrate Clotrimazole Suggests that GTP as Well as ATP May Be Used as an Energy Source. <i>Biochemistry</i> , 2007, 46, 13109-13119.	2.5	52

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37	Multidrug Resistance Protein 4 (ABCC4)-mediated ATP Hydrolysis. <i>Journal of Biological Chemistry</i> , 2004, 279, 48855-48864.	3.4	49
38	The sounds of silence: synonymous mutations affect function. <i>Pharmacogenomics</i> , 2007, 8, 527-532.	1.3	47
39	The Signaling Interface of the Yeast Multidrug Transporter Pdr5 Adopts a Cis Conformation, and There Are Functional Overlap and Equivalence of the Deviant and Canonical Q-Loop Residues. <i>Biochemistry</i> , 2010, 49, 4440-4449.	2.5	41
40	Exploiting Reaction Intermediates of the ATPase Reaction to Elucidate the Mechanism of Transport by P-glycoprotein (ABCB1). <i>Journal of Biological Chemistry</i> , 2006, 281, 26501-26511.	3.4	39
41	Effects of codon optimization on coagulation factor IX translation and structure: Implications for protein and gene therapies. <i>Scientific Reports</i> , 2019, 9, 15449.	3.3	38
42	Aptamers as a Sensitive Tool to Detect Subtle Modifications in Therapeutic Proteins. <i>PLoS ONE</i> , 2012, 7, e31948.	2.5	35
43	Pharmacogenetics and the immunogenicity of protein therapeutics. <i>Nature Biotechnology</i> , 2011, 29, 870-873.	17.5	31
44	Polymorphisms in the F8 Gene and MHC-II Variants as Risk Factors for the Development of Inhibitory Anti-Factor VIII Antibodies during the Treatment of Hemophilia A: A Computational Assessment. <i>PLoS Computational Biology</i> , 2013, 9, e1003066.	3.2	30
45	Role of microRNAs in Hemophilia and Thrombosis in Humans. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3598.	4.1	27
46	Elf1p, a Member of the ABC Class of ATPases, Functions as a mRNA Export Factor in <i>Schizosaccharomyces pombe</i> . <i>Journal of Biological Chemistry</i> , 2002, 277, 33580-33589.	3.4	22
47	The intron-22 "inverted F8 locus permits factor VIII synthesis: explanation for low inhibitor risk and a role for pharmacogenomics. <i>Blood</i> , 2015, 125, 223-228.	1.4	22
48	Small ncRNA Expression-Profiling of Blood from Hemophilia A Patients Identifies miR-1246 as a Potential Regulator of Factor 8 Gene. <i>PLoS ONE</i> , 2015, 10, e0132433.	2.5	22
49	Clinical manifestation of hemophilia A in the absence of mutations in the <i>F8</i> gene that encodes FVIII: role of microRNAs. <i>Transfusion</i> , 2020, 60, 401-413.	1.6	22
50	Peptides identified on monocyte-derived dendritic cells: a marker for clinical immunogenicity to FVIII products. <i>Blood Advances</i> , 2019, 3, 1429-1440.	5.2	20
51	Genetic determinants of immunogenicity to factor IX during the treatment of haemophilia B. <i>Haemophilia</i> , 2015, 21, 210-218.	2.1	18
52	Fc-Fusion Drugs Have Fc γ 3R/C1q Binding and Signaling Properties That May Affect Their Immunogenicity. <i>AAPS Journal</i> , 2019, 21, 62.	4.4	15
53	Efficient Propagation of Circulating Tumor Cells: A First Step for Probing Tumor Metastasis. <i>Cancers</i> , 2020, 12, 2784.	3.7	14
54	Editorial: Immunogenicity of Proteins Used as Therapeutics. <i>Frontiers in Immunology</i> , 2020, 11, 614856.	4.8	14

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55	Inhibition of Multidrug Resistance-Linked P-Glycoprotein (ABCB1) Function by 5-Fluorosulfonylbenzoyl Adenosine: Evidence for an ATP Analogue That Interacts with Both Drug-Substrate and Nucleotide-Binding Sites. <i>Biochemistry</i> , 2011, 50, 3724-3735.	2.5	13
56	TCPro: an In Silico Risk Assessment Tool for Biotherapeutic Protein Immunogenicity. <i>AAPS Journal</i> , 2019, 21, 96.	4.4	13
57	Cyclosporin A Impairs the Secretion and Activity of ADAMTS13 (A Disintegrin and Metalloprotease with Thrombospondin Type 1 Motifs). <i>Journal of Thrombosis and Haemostasis</i> , 2012, 12, 1078-1083.	3.4	12
58	Cas9-derived peptides presented by MHC Class II that elicit proliferation of CD4+ T-cells. <i>Nature Communications</i> , 2021, 12, 5090.	12.8	12
59	Characterization of Conformation-Sensitive Antibodies to ADAMTS13, the von Willebrand Cleavage Protease. <i>PLoS ONE</i> , 2009, 4, e6506.	2.5	12
60	Nonequivalence of the Nucleotide Binding Domains of the ArsA ATPase. <i>Journal of Biological Chemistry</i> , 2005, 280, 9921-9926.	3.4	10
61	Pharmacogenetics and the Immunogenicity of Protein Therapeutics. <i>Journal of Interferon and Cytokine Research</i> , 2014, 34, 931-937.	1.2	10
62	Secondary failure: immune responses to approved protein therapeutics. <i>Trends in Molecular Medicine</i> , 2021, 27, 1074-1083.	6.7	9
63	Plasma derivatives: New products and new approaches. <i>Biologicals</i> , 2012, 40, 191-195.	1.4	8
64	Further Evidence That MicroRNAs Can Play a Role in Hemophilia A Disease Manifestation: F8 Gene Downregulation by miR-19b-3p and miR-186-5p. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 669.	3.7	8
65	Detection of Intracellular Factor VIII Protein in Peripheral Blood Mononuclear Cells by Flow Cytometry. <i>BioMed Research International</i> , 2013, 2013, 1-8.	1.9	7
66	Translational and transcriptional responses in human primary hepatocytes under hypoxia. <i>American Journal of Physiology - Renal Physiology</i> , 2019, 316, G720-G734.	3.4	7
67	Mitigation of T-cell dependent immunogenicity by reengineering factor VIIIa analogue. <i>Blood Advances</i> , 2019, 3, 2668-2678.	5.2	7
68	Mathematical model of a personalized neoantigen cancer vaccine and the human immune system. <i>PLoS Computational Biology</i> , 2021, 17, e1009318.	3.2	7
69	Modulating immunogenicity of factor IX by fusion to an immunoglobulin Fc domain: a study using a hemophilia B mouse model. <i>Journal of Thrombosis and Haemostasis</i> , 2017, 15, 721-734.	3.8	6
70	SampPick: Selection of a Cohort of Subjects Matching a Population HLA Distribution. <i>Frontiers in Immunology</i> , 2019, 10, 2894.	4.8	6
71	Modified aptamers as reagents to characterize recombinant human erythropoietin products. <i>Scientific Reports</i> , 2020, 10, 18593.	3.3	6
72	Single-nucleotide variations defining previously unreported ADAMTS13 haplotypes are associated with differential expression and activity of the VWF-cleaving protease in a Salvadoran congenital thrombotic thrombocytopenic purpura family. <i>British Journal of Haematology</i> , 2014, 165, 154-158.	2.5	5

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73	The Synonymous V107V Mutation In Factor IX Is Not So Silent and May Cause Hemophilia B In Patients. <i>Blood</i> , 2010, 116, 2197-2197.	1.4	5
74	A Foundational Study for Normal F8-Containing Mouse Models for the miRNA Regulation of Hemophilia A: Identification and Analysis of Mouse miRNAs that Downregulate the Murine F8 Gene. <i>International Journal of Molecular Sciences</i> , 2020, 21, 5621.	4.1	4
75	HLA Variants and Inhibitor Development in Hemophilia A: A Retrospective Case-Controlled Study Using the ATHNdataset. <i>Frontiers in Medicine</i> , 2021, 8, 663396.	2.6	4
76	Detection of intracellular ADAMTS13, a secreted zinc metalloprotease, via flow cytometry. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2009, 75A, 675-681.	1.5	3
77	Quantitative HLA class II/factor VIII (FVIII) peptidomic variation in dendritic cells correlates with the immunogenic potential of therapeutic FVIII proteins in hemophilia A. <i>Journal of Thrombosis and Haemostasis</i> , 2020, 18, 201-216.	3.8	3
78	Personalized approaches to the treatment of hemophilia A and B. <i>Personalized Medicine</i> , 2015, 12, 403-415.	1.5	2
79	Factor VIII-Fc Activates Natural Killer Cells via Fc-Mediated Interactions With CD16. <i>Frontiers in Immunology</i> , 2021, 12, 692157.	4.8	2
80	Endotoxin contamination in commercially available Cas9 proteins potentially induces T-cell mediated responses. <i>Gene Therapy</i> , 2021, , .	4.5	2
81	Mapping Conformational Changes Associated with the Catalytic Cycle of Human P-Glycoprotein (ABCB1). <i>Biophysical Journal</i> , 2012, 102, 606a-607a.	0.5	1
82	Higher-Order Structure and Protein Aggregate Characterization of Protein Therapeutics: Perspectives from Good Manufacturing Practices and Regulatory Guidance. , 2013, , 261-281.		1
83	The Entire Primary Sequence of Factor VIII Is Synthesized As Two Polypeptide Chains in Hemophilia A Patients with the Intron-22-Inversion. <i>Blood</i> , 2011, 118, 1176-1176.	1.4	1
84	TCPRO: An In-Silico Risk Assessment Tool for Biotherapeutic Protein Immunogenicity. <i>Biophysical Journal</i> , 2019, 116, 563a.	0.5	0
85	Single and Codon-Optimized Synonymous Mutations in Factor IX Alter Protein Properties. <i>Blood</i> , 2011, 118, 1185-1185.	1.4	0
86	F8 and HLA-II Haplotypes in the Hispanic Population: Implications for Inhibitor Risk Development in Hispanic Hemophilia A Patients. <i>Blood</i> , 2012, 120, 3365-3365.	1.4	0
87	Secretion and Activity of ADAMTS13 Are Impaired by Cyclosporin A. <i>Blood</i> , 2012, 120, 3349-3349.	1.4	0
88	Common SNPs within or near Three Immune Response Genes Implicated in the Risk of FVIII Immunogenicity in Hemophilia A Do Not Influence Steady-State Levels of Their Encoded mRNAs. <i>Blood</i> , 2012, 120, 3366-3366.	1.4	0
89	Single-Nucleotide Variations Defining Previously Unreported ADAMTS13 Haplotypes Are Associated With Differential Expression and Activity Of The VWF-Cleaving Protease In a Salvadoran Congenital Thrombotic Thrombocytopenic Purpura Family. <i>Blood</i> , 2013, 122, 2319-2319.	1.4	0