List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Blood-Contacting Biomaterials: In Vitro Evaluation of the Hemocompatibility. Frontiers in Bioengineering and Biotechnology, 2018, 6, 99.	4.1	382
2	Induction of EPC homing on biofunctionalized vascular grafts for rapid in vivo self-endothelialization — A review of current strategies. Biotechnology Advances, 2010, 28, 119-129.	11.7	181
3	Development of hydrogels for regenerative engineering. Biotechnology Journal, 2017, 12, 1600394.	3.5	139
4	Human Mesenchymal Stromal Cells from Different Sources Diverge in Their Expression of Cell Surface Proteins and Display Distinct Differentiation Patterns. Stem Cells International, 2016, 2016, 1-9.	2.5	134
5	Upgrading SELEX Technology by Using Lambda Exonuclease Digestion for Single-Stranded DNA Generation. Molecules, 2010, 15, 1-11.	3.8	116
6	Hemocompatibility evaluation of different silver nanoparticle concentrations employing a modified Chandler-loop in vitro assay on human blood. Acta Biomaterialia, 2013, 9, 7460-7468.	8.3	111
7	New strategies for in vivo tissue engineering by mimicry of homing factors for self-endothelialisation of blood contacting materials. Biomaterials, 2008, 29, 3936-3945.	11.4	97
8	Tissue adhesives: From research to clinical translation. Nano Today, 2021, 36, 101049.	11.9	90
9	Streptavidin-Coated Magnetic Beads for DNA Strand Separation Implicate a Multitude of Problems During Cell-SELEX. Oligonucleotides, 2009, 19, 243-254.	2.7	64
10	Concise Review: Application of In Vitro Transcribed Messenger RNA for Cellular Engineering and Reprogramming: Progress and Challenges. Stem Cells, 2017, 35, 68-79.	3.2	56
11	Intradermal Delivery of Synthetic mRNA Using Hollow Microneedles for Efficient and Rapid Production of Exogenous Proteins in Skin. Molecular Therapy - Nucleic Acids, 2018, 11, 382-392.	5.1	55
12	Endothelial progenitor cell capture stents — hype or hope?. International Journal of Cardiology, 2010, 145, 115-117.	1.7	51
13	Potential Capacity of Aptamers to Trigger Immune Activation in Human Blood. PLoS ONE, 2013, 8, e68810.	2.5	42
14	Pitfalls of Cell-Systematic Evolution of Ligands by Exponential Enrichment (SELEX): Existing Dead Cells During <i>In Vitro</i> Selection Anticipate the Enrichment of Specific Aptamers. Oligonucleotides, 2010, 20, 317-323.	2.7	39
15	Hemocompatibility testing according to ISO 10993-4: Discrimination between pyrogen- and device-induced hemostatic activation. Materials Science and Engineering C, 2014, 42, 422-428.	7.3	39
16	Optimized conditions for successful transfection of human endothelial cells with in vitro synthesized and modified mRNA for induction of protein expression. Journal of Biological Engineering, 2014, 8, 8.	4.7	35
17	Preclinical Evaluation of the Thrombogenicity and Endothelialization of Bare Metal and Surface-Coated Neurovascular Stents. American Journal of Neuroradiology, 2015, 36, 133-139.	2.4	33
18	De Novo Synthesis of Elastin by Exogenous Delivery of Synthetic Modified mRNA into Skin and Elastin-Deficient Cells. Molecular Therapy - Nucleic Acids, 2018, 11, 475-484.	5.1	32

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19	Cationic Nanoliposomes Meet mRNA: Efficient Delivery of Modified mRNA Using Hemocompatible and Stable Vectors for Therapeutic Applications. Molecular Therapy - Nucleic Acids, 2017, 8, 459-468.	5.1	31
20	Current Strategies for the Regeneration of Skeletal Muscle Tissue. International Journal of Molecular Sciences, 2021, 22, 5929.	4.1	29
21	Reprogramming of Urine-Derived Renal Epithelial Cells into iPSCs Using srRNA and Consecutive Differentiation into Beating Cardiomyocytes. Molecular Therapy - Nucleic Acids, 2019, 17, 907-921.	5.1	26
22	Cell motility and migration as determinants of stem cell efficacy. EBioMedicine, 2020, 60, 102989.	6.1	26
23	In Vitro Synthesis of Modified mRNA for Induction of Protein Expression in Human Cells. Journal of Visualized Experiments, 2014, , e51943.	0.3	25
24	Incorporation of Synthetic mRNA in Injectable Chitosan-Alginate Hybrid Hydrogels for Local and Sustained Expression of Exogenous Proteins in Cells. International Journal of Molecular Sciences, 2018, 19, 1313.	4.1	25
25	Generation of iPSCs by Nonintegrative RNA-Based Reprogramming Techniques: Benefits of Self-Replicating RNA versus Synthetic mRNA. Stem Cells International, 2019, 2019, 1-16.	2.5	25
26	In vivo Tissue Engineering: Mimicry of Homing Factors for Self-Endothelialization of Blood-Contacting Materials. Pathobiology, 2013, 80, 176-181.	3.8	24
27	Absolute Quantification of Cell-Bound DNA Aptamers During SELEX. Nucleic Acid Therapeutics, 2013, 23, 125-130.	3.6	22
28	Generation of Largeâ \in Scale DNA Hydrogels with Excellent Blood and Cell Compatibility. Macromolecular Bioscience, 2017, 17, 1600252.	4.1	22
29	Improving the Angiogenic Potential of EPCs via Engineering with Synthetic Modified mRNAs. Molecular Therapy - Nucleic Acids, 2018, 13, 387-398.	5.1	22
30	Selection of aptamers against triple negative breast cancer cells using high throughput sequencing. Scientific Reports, 2021, 11, 8614.	3.3	22
31	Drug repurposing studies of PARP inhibitors as a new therapy for inherited retinal degeneration. Cellular and Molecular Life Sciences, 2020, 77, 2199-2216.	5.4	20
32	Small-Interfering RNA-Eluting Surfaces as a Novel Concept for Intravascular Local Gene Silencing. Molecular Medicine, 2011, 17, 1213-1222.	4.4	18
33	Delivery of synthetic mRNAs for tissue regeneration. Advanced Drug Delivery Reviews, 2021, 179, 114007.	13.7	18
34	Current Strategies and Future Perspectives of Skin-on-a-Chip Platforms: Innovations, Technical Challenges and Commercial Outlook. Current Pharmaceutical Design, 2019, 24, 5437-5457.	1.9	17
35	Aptamers Influence the Hemostatic System by Activating the Intrinsic Coagulation Pathway in an In Vitro Chandler-Loop Model. Clinical and Applied Thrombosis/Hemostasis, 2010, 16, 161-169.	1.7	15
36	Inducing Differentiation of Premalignant Hepatic Cells as a Novel Therapeutic Strategy in Hepatocarcinoma. Cancer Research, 2016, 76, 5550-5561.	0.9	15

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37	A DNA hydrogel gated organic field effect transistor. Organic Electronics, 2019, 75, 105402.	2.6	15
38	In vitro Study of a Novel Stent Coating Using Modified CD39 Messenger RNA to Potentially Reduce Stent Angioplasty-Associated Complications. PLoS ONE, 2015, 10, e0138375.	2.5	15
39	Hemocompatibility of Axial Versus Centrifugal Pump Technology in Mechanical Circulatory Support Devices. Artificial Organs, 2015, 39, 723-728.	1.9	14
40	<i>In Vitro</i> Evaluation of a Novel mRNA-Based Therapeutic Strategy for the Treatment of Patients Suffering from Alpha-1-Antitrypsin Deficiency. Nucleic Acid Therapeutics, 2015, 25, 235-244.	3.6	13
41	Generation of iPSCs from Jaw Periosteal Cells Using Self-Replicating RNA. International Journal of Molecular Sciences, 2019, 20, 1648.	4.1	13
42	Application of a rotating bioreactor consisting of lowâ€cost and readyâ€toâ€use medical disposables for <i>in vitro</i> evaluation of the endothelialization efficiency of smallâ€caliber vascular prostheses. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2013, 101B, 1061-1068.	3.4	12
43	Efficient reduction of synthetic mRNA induced immune activation by simultaneous delivery of B18R encoding mRNA. Journal of Biological Engineering, 2019, 13, 40.	4.7	11
44	A Novel C1-Esterase Inhibitor Oxygenator Coating Prevents FXII Activation in Human Blood. Biomolecules, 2020, 10, 1042.	4.0	11
45	One-Staged Aptamer-Based Isolation and Application of Endothelial Progenitor Cells in a Porcine Myocardial Infarction Model. Nucleic Acid Therapeutics, 2015, 25, 20-26.	3.6	10
46	Rapid Complexation of Aptamers by Their Specific Antidotes. Molecules, 2017, 22, 954.	3.8	10
47	iPSC-Derived MSCs Versus Originating Jaw Periosteal Cells: Comparison of Resulting Phenotype and Stem Cell Potential. International Journal of Molecular Sciences, 2020, 21, 587.	4.1	10
48	Microfluidic chip system for the selection and enrichment of cell binding aptamers. Biomicrofluidics, 2015, 9, 034111.	2.4	9
49	<i>In vitro</i> test system for evaluation of immune activation potential of new singleâ€stranded DNAâ€based therapeutics. Drug Testing and Analysis, 2015, 7, 300-308.	2.6	8
50	Exogenous Delivery of Link N mRNA into Chondrocytes and MSCs—The Potential Role in Increasing Anabolic Response. International Journal of Molecular Sciences, 2019, 20, 1716.	4.1	8
51	Porcine EPCs downregulate stem cell markers and upregulate endothelial maturation markers during <i>in vitro</i> cultivation. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 512-520.	2.7	7
52	New basic approach to treat nonâ€small cell lung cancer based on <scp>RNA</scp> â€interference. Thoracic Cancer, 2014, 5, 112-120.	1.9	7
53	Speeding up pyrogenicity testing: Identification of suitable cell components and readout parameters for an accelerated monocyte activation test (MAT). Drug Testing and Analysis, 2017, 9, 260-273.	2.6	6
54	RNA-Eluting Surfaces for the Modulation of Gene Expression as A Novel Stent Concept. Pharmaceuticals, 2017, 10, 23.	3.8	5

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55	Hemocompatibility of new magnetically-levitated centrifugal pump technology compared to the CentriMag adult pump. Scientific Reports, 2020, 10, 22055.	3.3	5
56	Hydrojet-based delivery of footprint-free iPSC-derived cardiomyocytes into porcine myocardium. Scientific Reports, 2020, 10, 16787.	3.3	4
57	Influence of Human Jaw Periosteal Cells Seeded β-Tricalcium Phosphate Scaffolds on Blood Coagulation. International Journal of Molecular Sciences, 2021, 22, 9942.	4.1	4
58	Current trends in delivery of non-viral nucleic acid-based therapeutics for improved efficacy. Advanced Drug Delivery Reviews, 2022, 185, 114297.	13.7	4
59	Improving hemocompatibility of artificial lungs by click conjugation of glycoengineered endothelial cells onto blood-contacting surfaces. , 2022, 137, 212824.		3
60	Profiling of time-dependent human plasma protein adsorption on non-coated and heparin-coated oxygenator membranes. , 2022, 139, 213014.		3
61	Importance of Rigorous <i>In Vitro</i> Evaluation of Prospective Cell Binding Aptamers. Nucleic Acid Therapeutics, 2014, 24, 250-257.	3.6	1
62	Selection and Application of Aptamers and Intramers. Advances in Experimental Medicine and Biology, 2016, 917, 241-258.	1.6	1
63	Application of Piezo-Based Measuring System for Evaluation of Nucleic Acid-Based Drugs Influencing the Coagulation. Sensors, 2020, 20, 152.	3.8	1
64	Synthetic Material Abdominal Swabs Reduce Activation of Platelets and Leukocytes Compared to Cotton Materials. Biomolecules, 2021, 11, 1023.	4.0	1
65	Use of Synthetic Single-Stranded Oligonucleotides as Artificial Test Soiling for Validation of Surgical Instrument Cleaning Processes. BioMed Research International, 2014, 2014, 1-8.	1.9	0
66	Selection and Application of Aptamers and Intramers. , 2015, , 241-258.		0
67	Homing of mRNA-Modified Endothelial Progenitor Cells to Inflamed Endothelium. Pharmaceutics, 2022, 14, 1194.	4.5	0