Rayhanul Islam

List of Publications by Year
in descending order

77 papers	13,927 citations	76326 40 h-index	79698 73 g-index
80 all docs	80 docs citations	80 times ranked	16818 citing authors

#	Article	IF	Citations
1	The EPR effect: Unique features of tumor blood vessels for drug delivery, factors involved, and limitations and augmentation of the effect. Advanced Drug Delivery Reviews, 2011, 63, 136-151.	13.7	3,020
2	Toward a full understanding of the EPR effect in primary and metastatic tumors as well as issues related to its heterogeneity. Advanced Drug Delivery Reviews, 2015, 91, 3-6.	13.7	934
3	Tumor-Selective Delivery of Macromolecular Drugs via the EPR Effect: Background and Future Prospects. Bioconjugate Chemistry, 2010, 21, 797-802.	3.6	874
4	Mechanism of tumor-targeted delivery of macromolecular drugs, including the EPR effect in solid tumor and clinical overview of the prototype polymeric drug SMANCS. Journal of Controlled Release, 2001, 74, 47-61.	9.9	861
5	Macromolecular therapeutics in cancer treatment: The EPR effect and beyond. Journal of Controlled Release, 2012, 164, 138-144.	9.9	705
6	SMANCS and polymer-conjugated macromolecular drugs: advantages in cancer chemotherapy. Advanced Drug Delivery Reviews, 2001, 46, 169-185.	13.7	514
7	Therapeutic strategies by modulating oxygen stress in cancer and inflammation. Advanced Drug Delivery Reviews, 2009, 61, 290-302.	13.7	476
8	Vascular permeability enhancement in solid tumor: various factors, mechanisms involved and its implications. International Immunopharmacology, 2003, 3, 319-328.	3.8	462
9	Early Phase Tumor Accumulation of Macromolecules: A Great Difference in Clearance Rate between Tumor and Normal Tissues. Japanese Journal of Cancer Research, 1998, 89, 307-314.	1.7	431
10	Exploiting the dynamics of the EPR effect and strategies to improve the therapeutic effects of nanomedicines by using EPR effect enhancers. Advanced Drug Delivery Reviews, 2020, 157, 142-160.	13.7	410
11	Analyses of repeated failures in cancer therapy for solid tumors: poor tumorâ€selective drug delivery, low therapeutic efficacy and unsustainable costs. Clinical and Translational Medicine, 2018, 7, 11.	4.0	337
12	Alkylperoxyl Radical-Scavenging Activity of Various Flavonoids and Other Phenolic Compounds:Â Implications for the Anti-Tumor-Promoter Effect of Vegetables. Journal of Agricultural and Food Chemistry, 1999, 47, 397-402.	5.2	293
13	A Retrospective 30ÂYears After Discovery of the Enhanced Permeability and Retention Effect of Solid Tumors: Nextâ€Generation Chemotherapeutics and Photodynamic Therapyâ€"Problems, Solutions, and Prospects. Microcirculation, 2016, 23, 173-182.	1.8	273
14	Vascular permeability in cancer and infection as related to macromolecular drug delivery, with emphasis on the EPR effect for tumor-selective drug targeting. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2012, 88, 53-71.	3.8	233
15	SMAâ€"doxorubicin, a new polymeric micellar drug for effective targeting to solid tumours. Journal of Controlled Release, 2004, 97, 219-230.	9.9	173
16	Enhanced delivery of macromolecular antitumor drugs to tumors by nitroglycerin application. Cancer Science, 2009, 100, 2426-2430.	3.9	171
17	In vivo antitumor activity of pegylated zinc protoporphyrin: targeted inhibition of heme oxygenase in solid tumor. Cancer Research, 2003, 63, 3567-74.	0.9	166
18	Elevating Blood Pressure as a Strategy to Increase Tumor-targeted Delivery of Macromolecular Drug SMANCS: Cases of Advanced Solid Tumors. Japanese Journal of Clinical Oncology, 2009, 39, 756-766.	1.3	156

#	Article	IF	Citations
19	The link between infection and cancer: Tumor vasculature, free radicals, and drug delivery to tumors via the <scp>EPR</scp> effect. Cancer Science, 2013, 104, 779-789.	3.9	143
20	Polymer therapeutics and the EPR effect. Journal of Drug Targeting, 2017, 25, 781-785.	4.4	117
21	Tailor-making of protein drugs by polymer conjugation for tumor targeting: A brief review on smancs. The Protein Journal, 1984, 3, 181-193.	1.1	109
22	Copoly(styrene-maleic acid)â˘'Pirarubicin Micelles:â€‰ High Tumor-Targeting Efficiency with Little Toxicity1. Bioconjugate Chemistry, 2005, 16, 230-236.	3.6	100
23	Polymeric micelles of zinc protoporphyrin for tumor targeted delivery based on EPR effect and singlet oxygen generation. Journal of Drug Targeting, 2007, 15, 496-506.	4.4	99
24	Two step mechanisms of tumor selective delivery of N-(2-hydroxypropyl)methacrylamide copolymer conjugated with pirarubicin via an acid-cleavable linkage. Journal of Controlled Release, 2014, 174, 81-87.	9.9	98
25	High-loading nanosized micelles of copoly(styreneâ€"maleic acid)â€"zinc protoporphyrin for targeted delivery of a potent heme oxygenase inhibitor. Biomaterials, 2007, 28, 1871-1881.	11.4	91
26	Styrene-maleic acid copolymer-encapsulated CORM2, a water-soluble carbon monoxide (CO) donor with a constant CO-releasing property, exhibits therapeutic potential for inflammatory bowel disease. Journal of Controlled Release, 2014, 187, 14-21.	9.9	90
27	The 35th Anniversary of the Discovery of EPR Effect: A New Wave of Nanomedicines for Tumor-Targeted Drug Deliveryâ€"Personal Remarks and Future Prospects. Journal of Personalized Medicine, 2021, 11, 229.	2.5	87
28	Augmentation of the Enhanced Permeability and Retention Effect with Nitric Oxideâ€"Generating Agents Improves the Therapeutic Effects of Nanomedicines. Molecular Cancer Therapeutics, 2018, 17, 2643-2653.	4.1	83
29	Carbon monoxide, generated by heme oxygenaseâ€1, mediates the enhanced permeability and retention effect in solid tumors. Cancer Science, 2012, 103, 535-541.	3.9	75
30	HPMA Copolymer-Conjugated Pirarubicin in Multimodal Treatment of a Patient with Stage IV Prostate Cancer and Extensive Lung and Bone Metastases. Targeted Oncology, 2016, 11, 101-106.	3.6	75
31	Upregulation of heme oxygenase-1 in colorectal cancer patients with increased circulation carbon monoxide levels, potentially affects chemotherapeutic sensitivity. BMC Cancer, 2014, 14, 436.	2.6	73
32	Micelles of zinc protoporphyrin conjugated to N-(2-hydroxypropyl)methacrylamide (HPMA) copolymer for imaging and light-induced antitumor effects in vivo. Journal of Controlled Release, 2013, 165, 191-198.	9.9	60
33	Nitroglycerin enhances vascular blood flow and drug delivery in hypoxic tumor tissues: Analogy between angina pectoris and solid tumors and enhancement of the EPR effect. Journal of Controlled Release, 2010, 142, 296-298.	9.9	58
34	S-Nitrosated human serum albumin dimer as novel nano-EPR enhancer applied to macromolecular anti-tumor drugs such as micelles and liposomes. Journal of Controlled Release, 2015, 217, 1-9.	9.9	48
35	Synthesis and therapeutic effect of styreneâ€"maleic acid copolymerâ€conjugated pirarubicin. Cancer Science, 2015, 106, 270-278.	3.9	47
36	Intracellular uptake and behavior of two types zinc protoporphyrin (ZnPP) micelles, SMA-ZnPP and PEG-ZnPP as anticancer agents; unique intracellular disintegration of SMA micelles. Journal of Controlled Release, 2011, 155, 367-375.	9.9	46

#	Article	IF	Citations
37	Augmentation of EPR Effect and Efficacy of Anticancer Nanomedicine by Carbon Monoxide Generating Agents. Pharmaceutics, 2019, 11, 343.	4.5	46
38	Therapeutic Potential of Pegylated Hemin for Reactive Oxygen Species-Related Diseases via Induction of Heme Oxygenase-1: Results from a Rat Hepatic Ischemia/Reperfusion Injury Model. Journal of Pharmacology and Experimental Therapeutics, 2011, 339, 779-789.	2.5	43
39	Enhanced Bacterial Tumor Delivery by Modulating the EPR Effect and Therapeutic Potential of Lactobacillus casei. Journal of Pharmaceutical Sciences, 2014, 103, 3235-3243.	3.3	40
40	Protection from inflammatory bowel disease and colitis-associated carcinogenesis with 4-vinyl-2,6-dimethoxyphenol (canolol) involves suppression of oxidative stress and inflammatory cytokines. Carcinogenesis, 2013, 34, 2833-2841.	2.8	39
41	Immunostimulation-Mediated Anti-Tumor Activity of Bamboo (<i>Sasa senanensis</i>) Leaf Extracts Obtained under â€˜Vigorousâ€™ Condition. Evidence-based Complementary and Alternative Medicine, 2010, 7, 447-457.	1.2	37
42	N-(2-hydroxypropyl)methacrylamide polymer conjugated pyropheophorbide-a, a promising tumor-targeted theranostic probe for photodynamic therapy and imaging. European Journal of Pharmaceutics and Biopharmaceutics, 2018, 130, 165-176.	4.3	36
43	HSP32 (HO-1) inhibitor, copoly(styrene-maleic acid)-zinc protoporphyrin IX, a water-soluble micelle as anticancer agent: In vitro and in vivo anticancer effect. European Journal of Pharmaceutics and Biopharmaceutics, 2012, 81, 540-547.	4.3	34
44	Pronounced Cellular Uptake of Pirarubicin versus That of Other Anthracyclines: Comparison of HPMA Copolymer Conjugates of Pirarubicin and Doxorubicin. Molecular Pharmaceutics, 2016, 13, 4106-4115.	4.6	34
45	pH-sensitive polymeric cisplatin-ion complex with styrene-maleic acid copolymer exhibits tumor-selective drug delivery and antitumor activity as a result of the enhanced permeability and retention effect. Colloids and Surfaces B: Biointerfaces, 2016, 138, 128-137.	5.0	34
46	Factors affecting the dynamics and heterogeneity of the EPR effect: pathophysiological and pathoanatomic features, drug formulations and physicochemical factors. Expert Opinion on Drug Delivery, 2022, 19, 199-212.	5.0	33
47	Photodynamic therapy and imaging based on tumor-targeted nanoprobe, polymer-conjugated zinc protoporphyrin. Future Science OA, 2015, 1, FSO4.	1.9	30
48	Protective effect of canolol from oxidative stress-induced cell damage in ARPE-19 cells via an ERK mediated antioxidative pathway. Molecular Vision, 2011, 17, 2040-8.	1.1	27
49	Styrene-maleic acid-copolymer conjugated zinc protoporphyrin as a candidate drug for tumor-targeted therapy and imaging. Journal of Drug Targeting, 2016, 24, 399-407.	4.4	23
50	Phosphorylcholine-Grafted Molecular Bottlebrushâ€“Doxorubicin Conjugates: High Structural Stability, Long Circulation in Blood, and Efficient Anticancer Activity. Biomacromolecules, 2021, 22, 1186-1196.	5.4	22
51	Effect of different chemical bonds in pegylation of zinc protoporphyrin that affects drug release, intracellular uptake, and therapeutic effect in the tumor. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 89, 259-270.	4.3	21
52	Polymer-conjugated glucosamine complexed with boric acid shows tumor-selective accumulation and simultaneous inhibition of glycolysis. Biomaterials, 2021, 269, 120631.	11.4	21
53	Highly effective anti-tumor nanomedicines based on HPMA copolymer conjugates with pirarubicin prepared by controlled RAFT polymerization. Acta Biomaterialia, 2020, 106, 256-266.	8.3	20
54	Direct Evidence of in Vivo Nitric Oxide Production and Inducible Nitric Oxide Synthase mRNA Expression in the Brain of Living Rat during Experimental Meningitis. Journal of Cerebral Blood Flow and Metabolism, 1999, 19, 1175-1178.	4.3	19

#	Article	IF	Citations
55	Water soluble PEG-conjugate of xanthine oxidase inhibitor, PEGâ€"AHPP micelles, as a novel therapeutic for ROS related inflammatory bowel diseases. Journal of Controlled Release, 2016, 223, 188-196.	9.9	19
56	Singlet oxygen phosphorescence detection in vivo identifies PDT-induced anoxia in solid tumors. Photochemical and Photobiological Sciences, 2019, 18, 1304-1314.	2.9	17
57	Comparison of the pharmacological and biological properties of HPMA copolymer-pirarubicin conjugates: A single-chain copolymer conjugate and its biodegradable tandem-diblock copolymer conjugate. European Journal of Pharmaceutical Sciences, 2017, 106, 10-19.	4.0	15
58	Extracts of Phellinus linteus, Bamboo (Sasa senanensis) Leaf and Chaga Mushroom (Inonotus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622	4.1	15
59	HPMA copolymer conjugate with pirarubicin: In vitro and ex vivo stability and drug release study. International Journal of Pharmaceutics, 2018, 536, 108-115.	5.2	14
60	EPR-Effect Enhancers Strongly Potentiate Tumor-Targeted Delivery of Nanomedicines to Advanced Cancers: Further Extension to Enhancement of the Therapeutic Effect. Journal of Personalized Medicine, 2021, 11, 487.	2.5	14
61	Tumor Environment-Responsive Hyaluronan Conjugated Zinc Protoporphyrin for Targeted Anticancer Photodynamic Therapy. Journal of Personalized Medicine, 2021, 11, 136.	2.5	9
62	ON THE TRYPTOPHAN CONTENT OF NEOCARZINOSTATIN. International Journal of Protein Research, 1970, 2, 135-136.	0.6	8
63	Overcoming barriers for tumor-targeted drug delivery. , 2020, , 41-58.		7
64	Unraveling the role of Intralipid in suppressing off-target delivery and augmenting the therapeutic effects of anticancer nanomedicines. Acta Biomaterialia, 2021, 126, 372-383.	8.3	7
65	Styrene Maleic Acid Copolymer-Based Micellar Formation of Temoporfin (SMA@ mTHPC) Behaves as A Nanoprobe for Tumor-Targeted Photodynamic Therapy with A Superior Safety. Biomedicines, 2021, 9, 1493.	3.2	7
66	Singlet Oxygen In Vivo: It Is All about Intensity. Journal of Personalized Medicine, 2022, 12, 891.	2.5	4
67	Weak Interplay between Hydrophobic Part of Water-soluble Polymers and Serum Protein. Chemistry Letters, 2021, 50, 1392-1393.	1.3	3
68	Polymers and polymeric hybrids for targeted drug delivery. , 2022, , 303-322.		2
69	Expression Dynamics of Heme Oxygenase-1 in Tumor Cells and the Host Contributes to the Progression of Tumors. Journal of Personalized Medicine, 2021, 11, 1340.	2.5	2
70	The EPR effect: its history, development and future implication. Drug Delivery System, 2018, 33, 80-88.	0.0	1
71	The Heme Oxygenase-1-Targeting Compound PEG-ZnPP Inhibits Growth of Imatinib-Resistant BCR/ABL-Transformed Cells.. Blood, 2004, 104, 1986-1986.	1.4	1
72	Heme Oxygenase-1 (HO-1): A Novel KIT D816V-Dependent Target in Neoplastic Human Mast Cells (HMC-1).. Blood, 2005, 106, 3521-3521.	1.4	1

#	ARTICLE	IF	CITATIONS
73	Heme Oxygenase-1 (HO-1)/Heat Shock Protein 32 (Hsp32) as a Novel Survival Factor and Target in AML.. Blood, 2006, 108, 1901-1901.	1.4	1
74	Styrene Maleic Acid Copolymer-Based Micellar Formation of Temoporfin (SMA@ mTHPC) Behaves as A Nanoprobe for Tumor-Targeted Photodynamic Therapy with A Superior Safety. Biomedicines, 2021, 9, .	3.2	1
75	Generation of Lipid Peroxyl Radicals from Oxidized Edible Oils and Heme-Iron: Suppression of DNA Damage by Unrefined Oils and Vegetable Extracts. ACS Symposium Series, 2002, , 282-300.	0.5	0
76	Tumor Stimulus-Responsive Biodegradable Diblock Copolymer Conjugates as Efficient Anti-Cancer Nanomedicines. Journal of Personalized Medicine, 2022, 12, 698.	2.5	0
77	Effect of Tumor Targeted-Anthracycline Nanomedicine, HPMA Copolymer-Conjugated Pirarubicin (P-THP) against Gynecological Malignancies. Journal of Personalized Medicine, 2022, 12, 814.	2.5	0