

# Mark Gumbleton

## List of Publications by Year in descending order

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113  
papers

4,222  
citations

109321

35  
h-index

123424

61  
g-index

116  
all docs

116  
docs citations

116  
times ranked

5468  
citing authors

#	ARTICLE	IF	CITATIONS
1	Progress and limitations in the use of in vitro cell cultures to serve as a permeability screen for the blood-brain barrier. <i>Journal of Pharmaceutical Sciences</i> , 2001, 90, 1681-1698.	3.3	247
2	Evaluation of the immortalised mouse brain capillary endothelial cell line, b.End3, as an in vitro blood-brain barrier model for drug uptake and transport studies. <i>Brain Research</i> , 2003, 990, 95-112.	2.2	229
3	The Particle has Landed Characterizing the Fate of Inhaled Pharmaceuticals. <i>Journal of Aerosol Medicine and Pulmonary Drug Delivery</i> , 2010, 23, S-71-S-87.	1.4	191
4	Endocytosis at the blood-brain barrier: From basic understanding to drug delivery strategies. <i>Journal of Drug Targeting</i> , 2006, 14, 191-214.	4.4	154
5	Differentiation of human alveolar epithelial cells in primary culture: morphological characterization and synthesis of caveolin-1 and surfactant protein-C. <i>Cell and Tissue Research</i> , 2003, 311, 31-45.	2.9	141
6	Caveolin-1 Expression and Caveolae Biogenesis during Cell Transdifferentiation in Lung Alveolar Epithelial Primary Cultures. <i>Biochemical and Biophysical Research Communications</i> , 1999, 262, 744-751.	2.1	120
7	Nanoparticle diffusion within intestinal mucus: Three-dimensional response analysis dissecting the impact of particle surface charge, size and heterogeneity across polyelectrolyte, pegylated and viral particles. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2015, 97, 230-238.	4.3	120
8	Caveolin and its cellular and subcellular immunolocalisation in lung alveolar epithelium: implications for alveolar epithelial type I cell function. <i>Cell and Tissue Research</i> , 1999, 295, 111-120.	2.9	109
9	Challenges in inhaled product development and opportunities for open innovation. <i>Advanced Drug Delivery Reviews</i> , 2011, 63, 69-87.	13.7	95
10	Constitutive Expression of P-Glycoprotein in Normal Lung Alveolar Epithelium and Functionality in Primary Alveolar Epithelial Cultures. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2003, 304, 441-452.	2.5	94
11	Caveolae as potential macromolecule trafficking compartments within alveolar epithelium. <i>Advanced Drug Delivery Reviews</i> , 2001, 49, 281-300.	13.7	93
12	Methods to determine the interactions of micro- and nanoparticles with mucus. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2015, 96, 464-476.	4.3	91
13	Caveolin-1 overexpression predicts poor disease-free survival of patients with clinically confined renal cell carcinoma. <i>British Journal of Cancer</i> , 2003, 89, 1909-1913.	6.4	89
14	In vivo evaluation of an oral self-emulsifying drug delivery system (SEDDS) for exenatide. <i>Journal of Controlled Release</i> , 2018, 277, 165-172.	9.9	89
15	Examination of the biophysical interaction between plasmid DNA and the polycations, polylysine and polyornithine, as a basis for their differential gene transfection in-vitro. <i>International Journal of Pharmaceutics</i> , 2000, 210, 97-107.	5.2	87
16	Understanding endocytic pathways and intracellular trafficking: a prerequisite for effective design of advanced drug delivery systems. <i>Advanced Drug Delivery Reviews</i> , 2003, 55, 1353-1357.	13.7	85
17	RT-PCR analysis of ABC, SLC and SLCO drug transporters in human lung epithelial cell models. <i>Journal of Pharmacy and Pharmacology</i> , 2010, 61, 583-591.	2.4	74
18	Primary porcine brain microvascular endothelial cells: Biochemical and functional characterisation as a model for drug transport and targeting. <i>Journal of Drug Targeting</i> , 2007, 15, 253-268.	4.4	72

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19	Physical stability and in-vitro gene expression efficiency of nebulised lipid-peptide-DNA complexes. <i>International Journal of Pharmaceutics</i> , 2000, 197, 221-231.	5.2	70
20	Caveolae: an alternative membrane transport compartment. <i>Pharmaceutical Research</i> , 2000, 17, 1035-1048.	3.5	70
21	Self-emulsifying drug delivery system: Mucus permeation and innovative quantification technologies. <i>Advanced Drug Delivery Reviews</i> , 2019, 142, 62-74.	13.7	68
22	Pegylation of Antimicrobial Peptides Maintains the Active Peptide Conformation, Model Membrane Interactions, and Antimicrobial Activity while Improving Lung Tissue Biocompatibility following Airway Delivery. <i>Antimicrobial Agents and Chemotherapy</i> , 2012, 56, 3298-3308.	3.2	66
23	Expression and Transport Functionality of FcRn within Rat Alveolar Epithelium: A Study in Primary Cell Culture and in the Isolated Perfused Lung. <i>Pharmaceutical Research</i> , 2006, 23, 270-279.	3.5	61
24	Impact of different hydrophobic ion pairs of octreotide on its oral bioavailability in pigs. <i>Journal of Controlled Release</i> , 2018, 273, 21-29.	9.9	60
25	Identification and biological evaluation of grapefruit oil components as potential novel efflux pump modulators in methicillin-resistant <i>Staphylococcus aureus</i> bacterial strains. <i>Phytochemistry</i> , 2004, 65, 3021-3027.	2.9	54
26	P-glycoprotein (MDR1) functional activity in human alveolar epithelial cell monolayers. <i>Cell and Tissue Research</i> , 2007, 328, 77-84.	2.9	54
27	Combined expression of caveolin-1 and an activated AKT/mTOR pathway predicts reduced disease-free survival in clinically confined renal cell carcinoma. <i>British Journal of Cancer</i> , 2008, 98, 931-940.	6.4	53
28	Polylysine and Polyornithine Gene Transfer Complexes: A Study of Complex Stability and Cellular Uptake as a Basis for their Differential in-vitro Transfection Efficiency. <i>Journal of Drug Targeting</i> , 2002, 10, 1-9.	4.4	50
29	Temporal dependence of ectopeptidase expression in alveolar epithelial cell culture: implications for study of peptide absorption. <i>International Journal of Pharmaceutics</i> , 1999, 180, 225-234.	5.2	49
30	Mucus permeating thiolated self-emulsifying drug delivery systems. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2016, 98, 90-97.	4.3	47
31	Spatial expression and functionality of drug transporters in the intact lung: Objectives for further research. <i>Advanced Drug Delivery Reviews</i> , 2011, 63, 110-118.	13.7	45
32	A human co-culture cell model incorporating microglia supports glioblastoma growth and migration, and confers resistance to cytotoxics. <i>FASEB Journal</i> , 2020, 34, 1710-1727.	0.5	44
33	The inhibition of phagocytosis of respirable microspheres by alveolar and peritoneal macrophages. <i>International Journal of Pharmaceutics</i> , 2002, 236, 65-79.	5.2	43
34	Targeting caveolae for vesicular drug transport. <i>Journal of Controlled Release</i> , 2003, 87, 139-151.	9.9	38
35	Characterization and astrocytic modulation of system L transporters in brain microvasculature endothelial cells. <i>Cell Biochemistry and Function</i> , 2008, 26, 381-391.	2.9	37
36	PGSE-NMR and SANS Studies of the Interaction of Model Polymer Therapeutics with Mucin. <i>Biomacromolecules</i> , 2010, 11, 120-125.	5.4	36

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37	Differential Influence of Laboratory Anaesthetic Regimens upon Renal and Hepatosplanchnic Haemodynamics in the Rat. <i>Journal of Pharmacy and Pharmacology</i> , 2011, 42, 693-697.	2.4	36
38	Gene expression in an intact ex-vivo skin tissue model following percutaneous delivery of cationic liposome-plasmid DNA complexes. <i>International Journal of Pharmaceutics</i> , 2000, 197, 233-238.	5.2	33
39	Nuclear localisation and pDNA condensation in non-viral gene delivery. <i>Journal of Gene Medicine</i> , 2007, 9, 265-274.	2.8	33
40	Caveolin-1 in renal cell carcinoma promotes tumour cell invasion, and in co-operation with pERK predicts metastases in patients with clinically confined disease. <i>Journal of Translational Medicine</i> , 2013, 11, 255.	4.4	32
41	INSIDIA: A Fiji Macro Delivering High-Throughput and High-Content Spheroid Invasion Analysis. <i>Biotechnology Journal</i> , 2017, 12, 1700140.	3.5	32
42	Coming out of the dark: the evolving role of fluorescence imaging in drug delivery research. <i>Advanced Drug Delivery Reviews</i> , 2005, 57, 5-15.	13.7	28
43	Activated extracellular signal-regulated kinase is an independent prognostic factor in clinically confined renal cell carcinoma. <i>Cancer</i> , 2009, 115, 3457-3467.	4.1	28
44	Stereoselective and Concentration-Dependent Polarized Epithelial Permeability of a Series of Phosphoramidate Triester Prodrugs of d4T: An in Vitro Study in Caco-2 and Madin-Darby Canine Kidney Cell Monolayers. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2003, 307, 1112-1119.	2.5	27
45	Transport of Phosphatidylcholine in MDR3-Negative Epithelial Cell Lines via Drug-Induced MDR1 P-Glycoprotein. <i>Biochemical and Biophysical Research Communications</i> , 1999, 262, 121-126.	2.1	26
46	Evaluation of nanoparticles as oral vehicles for immunotherapy against experimental peanut allergy. <i>International Journal of Biological Macromolecules</i> , 2018, 110, 328-335.	7.5	26
47	The Effect of Fatty Acids and Analogues upon Intracellular Levels of Doxorubicin in Cells Displaying P-Glycoprotein Mediated Multidrug Resistance. <i>Journal of Drug Targeting</i> , 2000, 8, 247-256.	4.4	25
48	Lung surfactant phospholipids inhibit the uptake of respirable microspheres by the alveolar macrophage NR8383. <i>Journal of Pharmacy and Pharmacology</i> , 2010, 54, 1065-1072.	2.4	25
49	Selectivity in the impact of P-glycoprotein upon pulmonary absorption of airway-dosed substrates: A study in ex vivo lung models using chemical inhibition and genetic knockout. <i>Journal of Pharmaceutical Sciences</i> , 2013, 102, 3382-3394.	3.3	25
50	Drug metabolism and laboratory anesthetic protocols in the rat: examination of antipyrine pharmacokinetics. <i>Pharmaceutical Research</i> , 1991, 08, 544-546.	3.5	24
51	Pharmaceutical nanoparticles and the mucin biopolymer barrier. <i>BiolImpacts</i> , 2012, 2, 173-4.	1.5	24
52	Stereospecific chemical and enzymatic stability of phosphoramidate triester prodrugs of d4T in vitro. <i>European Journal of Pharmaceutical Sciences</i> , 2004, 22, 25-31.	4.0	23
53	Growth of hormone-dependent MCF-7 breast cancer cells is promoted by constitutive caveolin-1 whose expression is lost in an EGF-R-mediated manner during development of tamoxifen resistance. <i>Breast Cancer Research and Treatment</i> , 2010, 119, 575-591.	2.5	23
54	RT-PCR analysis of ABC, SLC and SLCO drug transporters in human lung epithelial cell models. <i>Journal of Pharmacy and Pharmacology</i> , 2009, 61, 583-591.	2.4	23

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55	Caveolae and the caveolins in human disease. <i>Advanced Drug Delivery Reviews</i> , 2001, 49, 325-335.	13.7	22
56	Enhanced pulmonary absorption of a macromolecule through coupling to a sequence-specific phage display-derived peptide. <i>Journal of Controlled Release</i> , 2011, 151, 83-94.	9.9	22
57	Current Progress Toward a Better Understanding of Drug Disposition Within the Lungs: Summary Proceedings of the First Workshop on Drug Transporters in the Lungs. <i>Journal of Pharmaceutical Sciences</i> , 2017, 106, 2234-2244.	3.3	22
58	Cell selective glucocorticoid induction of caveolin-1 and caveolae in differentiating pulmonary alveolar epithelial cell cultures. <i>Biochemical and Biophysical Research Communications</i> , 2007, 359, 360-366.	2.1	21
59	Differential effects of anesthetic regimens on gentamicin pharmacokinetics in the rat: a comparison with chronically catheterized conscious animals. <i>Pharmaceutical Research</i> , 1990, 07, 41-45.	3.5	20
60	Downregulation and altered spatial pattern of caveolin-1 in chronic plaque psoriasis. <i>British Journal of Dermatology</i> , 2002, 147, 701-709.	1.5	20
61	Endocytic Uptake, Transport and Macromolecular Interactions of Anionic PAMAM Dendrimers within Lung Tissue. <i>Pharmaceutical Research</i> , 2017, 34, 2517-2531.	3.5	20
62	Humidified Warmed CO2 Treatment Therapy Strategies Can Save Lives With Mitigation and Suppression of SARS-CoV-2 Infection: An Evidence Review. <i>Frontiers in Medicine</i> , 2020, 7, 594295.	2.6	20
63	Zwitterionic self-assembled nanoparticles as carriers for Plasmodium targeting in malaria oral treatment. <i>Journal of Controlled Release</i> , 2021, 331, 364-375.	9.9	20
64	Peptide sequences mediating tropism to intact blood-brain barrier: An in vivo biodistribution study using phage display. <i>Peptides</i> , 2012, 38, 172-180.	2.4	19
65	Pharmacokinetic Considerations in Rational Drug Design. <i>Clinical Pharmacokinetics</i> , 1994, 26, 161-168.	3.5	18
66	Inhaled extended-release microparticles of heparin elicit improved pulmonary pharmacodynamics against antigen-mediated airway hyper-reactivity and inflammation. <i>Journal of Controlled Release</i> , 2012, 162, 456-463.	9.9	18
67	Comparison of vasodilatory responses to nitroglycerin and its dinitrate metabolites in human veins. <i>Clinical Pharmacology and Therapeutics</i> , 1992, 52, 590-596.	4.7	17
68	Mannosylated Nanoparticles for Oral Immunotherapy in a Murine Model of Peanut Allergy. <i>Journal of Pharmaceutical Sciences</i> , 2019, 108, 2421-2429.	3.3	17
69	The Differential Absorption of a Series of P-Glycoprotein Substrates in Isolated Perfused Lungs from Mdr1a/1b Genetic Knockout Mice can be Attributed to Distinct Physico-Chemical Properties: an Insight into Predicting Transporter-Mediated, Pulmonary Specific Disposition. <i>Pharmaceutical Research</i> , 2017, 34, 2498-2516.	3.5	16
70	Destabilization of $\alpha$ -Helical Structure in Solution Improves Bactericidal Activity of Antimicrobial Peptides: Opposite Effects on Bacterial and Viral Targets. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 1984-1991.	3.2	15
71	Heparin-based, injectable microcarriers for controlled delivery of interleukin-13 to the brain. <i>Biomaterials Science</i> , 2020, 8, 4997-5004.	5.4	15
72	Local delivery to malignant brain tumors: potential biomaterial-based therapeutic/adjuvant strategies. <i>Biomaterials Science</i> , 2021, 9, 6037-6051.	5.4	15

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73	Quantifying the effects of antibiotic treatment on the extracellular polymer network of antimicrobial resistant and sensitive biofilms using multiple particle tracking. <i>Npj Biofilms and Microbiomes</i> , 2021, 7, 13.	6.4	15
74	Aerosols for Macromolecule Delivery. <i>American Journal of Drug Delivery</i> , 2004, 2, 143-155.	0.6	14
75	Phospho-4e-BP1 and eIF4E overexpression synergistically drives disease progression in clinically confined clear cell renal cell carcinoma. <i>American Journal of Cancer Research</i> , 2015, 5, 2838-48.	1.4	14
76	Immunolocalization of Caveolin-1 in Rat and Human Mesothelium. <i>Journal of Histochemistry and Cytochemistry</i> , 2004, 52, 1415-1425.	2.5	13
77	Maximal extent of translocation of single-walled carbon nanotubes from lung airways of the rat. <i>Environmental Toxicology and Pharmacology</i> , 2013, 35, 461-464.	4.0	13
78	Improved gas chromatographic assay for the simultaneous determination of nitroglycerin and its mono- and dinitrate metabolites. <i>Biomedical Applications</i> , 1992, 579, 237-245.	1.7	12
79	Modulation of the fate of zein nanoparticles by their coating with a Gantrez® AN-thiamine polymer conjugate. <i>International Journal of Pharmaceutics: X</i> , 2019, 1, 100006.	1.6	12
80	Absorption of ipratropium and L-carnitine into the pulmonary circulation of the ex-vivo rat lung is driven by passive processes rather than active uptake by OCT/OCTN transporters. <i>International Journal of Pharmaceutics</i> , 2015, 496, 834-841.	5.2	10
81	Oral Immunogenicity in Mice and Sows of Enterotoxigenic Escherichia Coli Outer-Membrane Vesicles Incorporated into Zein-Based Nanoparticles. <i>Vaccines</i> , 2020, 8, 11.	4.4	10
82	Satellitosis, a Crosstalk between Neurons, Vascular Structures and Neoplastic Cells in Brain Tumours; Early Manifestation of Invasive Behaviour. <i>Cancers</i> , 2020, 12, 3720.	3.7	10
83	1,2- and 1,3-dinitrate metabolites of nitroglycerin: Spectroscopic characterization and initial administration to man. <i>International Journal of Pharmaceutics</i> , 1991, 71, 175-186.	5.2	9
84	Aberrant Caveolin-1 Expression in Psoriasis: A Signalling Hypothesis. <i>IUBMB Life</i> , 2000, 50, 361-364.	3.4	9
85	Anaesthetic influences on brain haemodynamics in the rat and their significance to biochemical, neuropharmacological and drug disposition studies. <i>Biochemical Pharmacology</i> , 1989, 38, 2745-2748.	4.4	8
86	Percutaneous penetration kinetics of nitroglycerin and its dinitrate metabolites across hairless mouse skin in vitro. <i>Pharmaceutical Research</i> , 1991, 08, 1231-1237.	3.5	8
87	Statistical Modelling of the Formulation Variables in Non-Viral Gene Delivery Systems. <i>Journal of Drug Targeting</i> , 2001, 9, 169-184.	4.4	8
88	Challenges and innovations in effective pulmonary systemic and macromolecular drug delivery†. <i>Advanced Drug Delivery Reviews</i> , 2006, 58, 993-995.	13.7	8
89	Poly(ethylene glycol) based nanotubes for tuneable drug delivery to glioblastoma multiforme. <i>Nanoscale Advances</i> , 2020, 2, 4498-4509.	4.6	8
90	Caveolin expression during chondrogenesis in the avian limb. <i>Developmental Dynamics</i> , 2002, 225, 205-211.	1.8	7

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91	Phage display identification of functional binding peptides against 4-acetamidophenol (Paracetamol): An exemplified approach to target low molecular weight organic molecules. <i>Biochemical and Biophysical Research Communications</i> , 2007, 358, 285-291.	2.1	7
92	Caveolae-mediated membrane transport. <i>Advanced Drug Delivery Reviews</i> , 2001, 49, 217-221.	13.7	6
93	Evidence of Nonuniformity in Urothelium Barrier Function between the Upper Urinary Tract and Bladder. <i>Journal of Urology</i> , 2016, 195, 763-770.	0.4	6
94	In vitro assessment of cephaloridine nephrotoxicity: Comparison of renal cortical slice and renal tubule fragment techniques. <i>Journal of Pharmacological Methods</i> , 1988, 19, 185-192.	0.7	5
95	Pharmacokinetic studies of the nitroglycerin metabolites, 1,2- and 1,3- glyceryl dinitrates, in the rat. <i>Biopharmaceutics and Drug Disposition</i> , 1991, 12, 215-222.	1.9	5
96	Interpretation and utilization of effect and concentration data collected in an in vivo pharmacokinetic and in vitro pharmacodynamic study. <i>Pharmaceutical Research</i> , 1993, 10, 889-894.	3.5	5
97	Aberrant Caveolin-1 Expression in Psoriasis: A Signalling Hypothesis. <i>IUBMB Life</i> , 2000, 50, 361-364.	3.4	5
98	An <i>ex Vivo</i> Investigation into the Transurothelial Permeability and Bladder Wall Distribution of the Nonsteroidal Anti-Inflammatory Ketorolac. <i>Molecular Pharmaceutics</i> , 2014, 11, 673-682.	4.6	5
99	Investigating Detrusor Muscle Concentrations of Oxybutynin After Intravesical Delivery in an Ex Vivo Porcine Model. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 2233-2240.	3.3	5
100	Targeted Drug Delivery Through the Respiratory System: Molecular Control on Lung Absorption and Disposition. , 2011, , 127-141.		4
101	A Systematic Review and Meta-Analysis Reveals Altered Drug Pharmacokinetics in Humans During Acute Exposure to Terrestrial High Altitude—Clinical Justification for Dose Adjustment?. <i>High Altitude Medicine and Biology</i> , 2018, 19, 141-148.	0.9	4
102	Auto-fluorescent PAMAM-based dendritic molecules and their potential application in pharmaceutical sciences. <i>International Journal of Pharmaceutics</i> , 2020, 579, 119187.	5.2	4
103	Simultaneous pharmacodynamic modeling of the non-steady-state effects of three oral doses of 1,3-glyceryl dinitrate upon blood pressure in healthy volunteers. <i>Journal of Pharmacokinetics and Pharmacodynamics</i> , 1993, 21, 515-532.	0.6	3
104	Principles in the absorption, distribution and elimination of pharmaceuticals. <i>Pest Management Science</i> , 1994, 42, 223-240.	0.4	3
105	Caveolin-1, a Key Mediator Across Multiple Pathways in Glioblastoma and an Independent Negative Biomarker of Patient Survival. <i>Frontiers in Oncology</i> , 2021, 11, 701933.	2.8	3
106	A simple zero length surface-modification approach for preparing novel bifunctional supports for co-immobilisation studies. <i>Tetrahedron Letters</i> , 2012, 53, 3727-3730.	1.4	2
107	Microcalorimetry does not predict the cellular phagocytosis of latex microspheres. <i>International Journal of Pharmaceutics</i> , 2000, 195, 17-23.	5.2	1
108	2007 Editors' Collection. <i>Advanced Drug Delivery Reviews</i> , 2007, 59, 1481.	13.7	1

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109	A novel cost-effective approach for the efficient radiolabeling of dendritic macromolecules with a $^{125}$ I-emitting radiotracer. <i>Tetrahedron Letters</i> , 2013, 54, 1045-1048.	1.4	1
110	2008 Editors' Collection. <i>Advanced Drug Delivery Reviews</i> , 2008, 60, 1569.	13.7	0
111	Cellular Delivery of Therapeutic Macromolecules (CDTM) International Symposium 2010: lessons and progress from inter-disciplinary science. <i>Drug Discovery Today</i> , 2010, 15, 1079-1080.	6.4	0
112	P0324SODIUM ZIRCONIUM CYCLOSILICATE TO PREVENT HYPERKALAEMIA IF HAEMODIALYSIS IS POSTPONED DUE TO VASCULAR ACCESS COMPLICATIONS: EXPERIENCE FROM CLINICAL PRACTICE. <i>Nephrology Dialysis Transplantation</i> , 2020, 35, .	0.7	0
113	Analysis of mRNA for ABC, SLC and SLCO transporter in human respiratory epithelial cells. <i>FASEB Journal</i> , 2008, 22, 918.6.	0.5	0