

List of Publications (* Corresponding author)

- 2021
1. Liao Q, Yuan S, Cao, J, Tang K, Qiu Y, Seow HC, Man RCH, Shao Z, Huang Y, Liang R, Chan JFW, Yuen KY, **Lam JKW***. Inhaled Dry Powder Formulation of Tamibarotene, a Broad-Spectrum Antiviral against Respiratory Viruses Including SARS-CoV-2 and Influenza Virus. *Advanced Therapeutics* 2021; 2100059
 2. Qiu Y, Clarke M, Wan LTL, Lo JCK, Mason AJ, **Lam JKW***. Optimization of PEGylated KL4 Peptide for siRNA Delivery with Improved Pulmonary Tolerance. *Molecular Pharmaceutics* 2021; 18 (6): 2218-2232
 3. Liao Q, Lam **JKW***. Inhaled Antifungal Agents for the Treatment and Prophylaxis of Pulmonary Mycoses. *Current Pharmaceutical Design* 2021; 27: 1453-1468
 4. Lo JCK, Pan HW, **Lam JKW***. Inhalable Protein Powder Prepared by Spray-Freeze-Drying Using Hydroxypropyl- β -Cyclodextrin as Excipient. *Pharmaceutics* 2021; 13(5): 615
 5. Qiu Y, Lo JCK, Kwok KCW, Mason AJ, **Lam JKW***. Modification of KL4 peptide revealed the importance of alpha-helical structure for siRNA delivery. *Nucleic Acid Therapeutics* 2021; 31(3): 220-228
- 2020
6. Manzo G, Hind CK, Ferguson PM, Amison RT, Hodgson-Casson AC, Ciazynska K, Weller B, Clarke M, Lam C, Man RCH, O'Shaughnessy BG, Clifford M, Bui TT, Drake AF, Atkinson A, **Lam JKW**, Pitchford SC, Page CP, Phoenix DA, Lorenz CD, Sutton JM, Mason AJ. A pleurocidin analogue with greater conformational flexibility, enhanced antimicrobial potency and in vivo therapeutic efficacy. *Communications Biology* 2020; 3: 697
 7. **Lam JKW***, Cheung CCK, Chow MYT, Harrop E, Lapwood S, Barclay SIG, Wong ICK. Transmucosal drug administration as an alternative route in palliative and end-of-life care during the COVID-19 pandemic. *Advanced Drug Delivery Reviews* 2020; 160: 234-243
 8. Liang W, Pan HW, Vllasaliu D, **Lam JKW**. Pulmonary delivery of biological drugs. *Pharmaceutics* 2020; 12(11): 1025
 9. Chow MYT, Qiu Y, **Lam JKW***. Inhaled RNA therapeutics – from promise to reality. *Trends in Pharmacological Sciences* 2020; 41(10): 715-729
 10. Qiu Y, Liao Q, Chow MYT, **Lam JKW***. Intratracheal administration of inhaled dry powder formulation in mice. *Journal of Visualized Experiments* 2020; 161, e61469
 11. Liao Q, Lam ICH, Lin HHS, Wan TL, Lo JCK, Tai W, Kwok PCL, **Lam JKW***. Effect of formulation and inhaler parameters on the dispersion of spray freeze dried voriconazole particles. *International Journal of Pharmaceutics* 2020; 584, 119444
- 2019
12. Chow MYT, Qiu Y, Liao Q, Kwok PCL, Chow SF, Chan HK, **Lam JKW***. High siRNA loading powder for inhalation prepared by co-spray drying with human serum albumin. *International Journal of Pharmaceutics* 2019; 572, 118818

13. Qiu Y, Man RCH, Liao Q, Kung KKK, Chow MYT, **Lam JKW***. Effective mRNA pulmonary delivery by dry powder formulation of a PEGylated synthetic KL4 peptide. *Journal of Controlled Release* 2019; 314, 102-115
14. Liao Q, Yip L, Chow MYT, Chow SF, Chan HK, Kwok PCL, **Lam JKW***. Porous and highly dispersible voriconazole dry powders produced by spray freeze drying for pulmonary delivery with efficient lung deposition. *International Journal of Pharmaceutics* 2019; 560: 144-154
15. Zhang L, Ng TB, **Lam JKW**, Wang SW, Lao L, Zhang KY, Sze SCW. Research and development of proteins and peptides with therapeutic potential from yam tubers. *Current Protein and Peptide Science* 2019; 20(3), 277-284
- 2018 16. Liang W, Chow MYT, Chow SF, Chan HK, Kwok PCL, **Lam JKW***. Using two-fluid nozzle for spray freeze drying to produce porous powder formulation of naked siRNA for inhalation. *International Journal of Pharmaceutics* 2018; 552(1-2): 67-75
17. Lucarini S, Fagioli L, Cavanagh R, Liang W, Perinelli DR, Campana M, Stolnik S, **Lam JKW**, Casettari L, Duranti A. Synthesis, structure-activity relationships and in vitro toxicity profile of lactose-based fatty acid monoesters as possible drug permeability enhancers. *Pharmaceutics* 2018; 10(3), 81
18. Man DKW, Kanno T, Manzo G, Robertson BD, **Lam JKW**, Mason AJ. Rifampicin or capreomycin induced remodelling of the *Mycobacterium smegmatis* mycolic acid layer is mitigated in synergistic combinations with cationic antimicrobial peptides. *mSphere* 2018; 3(4): e00218-18
19. Raik SV, Andranovits S, Petrova V, Xu Y, **Lam JKW**, Morris GA, Brodskaya AV, Casettari L, Kritchenkov AS, Skorik YA. Comparative study of diethylaminoethyl-chitosan and methylglycol-chitosan as potential non-viral vector for gene therapy. *Polymers* 2018; 10(4): 442
20. Liang W, Chan AYL, Chow MYT, Lo FFK, Qiu Y, Kwok PCL, **Lam JKW***. Spray freeze drying of small nucleic acids as inhaled powder for pulmonary delivery. *Asian Journal of Pharmaceutical Sciences*. 2018; 13: 163-172
21. Perinelli DR, Fagioli L, Campana R, **Lam JKW**, Baffone W, Palmieri GF, Casettari L, Bonacucina G. Chitosan-based nanosystems and their exploited antimicrobial activity. *European Journal of Pharmaceutical Sciences*. 2018; 117: 8-20
- 2018 22. Qiu Y, Chow MYT, Liang W, Chung WY, Mak JCW, **Lam JKW***. From the pulmonary surfactant – synthetic KL4 peptide as effective siRNA delivery vector for pulmonary delivery. *Molecular Pharmaceutics*. 2017; 14(12): 4606-4617
23. Chow MYT, Qiu Y, Lo FFK, Lin HHS, Chan HK, Kwok PCL, **Lam JKW***. Inhaled powder formulation of naked siRNA using spray drying technology with L-leucine as dispersion enhancer. *International Journal of Pharmaceutics*. 2017; 530(1-2): 40-52
24. Chen J, Li J, Yiu JHC, **Lam JKW**, Wong CM, Dorweiler B, Xu A, Woo CW. TRIF-dependent toll-like receptor signaling suppresses SCD1 transcription in hepatocytes and prevents diet-induced hepatic steatosis. *Science Signaling*. 2017; 10(491): eaal3336
25. Perinelli DR., Cespi M, Pucciarelli S, Vincenzetti S, Casettari L, **Lam JKW**, Logrippo S, Canala E, Soliman ME, Bonacucina G, Palmieri GF. Water-in-oil microemulsions for

- protein delivery: loading optimization and stability. *Current Pharmaceutical Biotechnology*. 2017; 18(5): 410-421
26. Wang SW, Chueng HP, Tong Y, Lu J, Ng TB, Zhang YB, Zhang ZJ, Lee KF, **Lam JKW**, Sze SCW. Steroidogenic effect of Erxian decoction for relieving menopause via the p-Atk/PKB pathway in vitro and in vivo. *Journal of Ethnopharmacology*. 2017; 195: 188-195
 - 2016 27. Qiu Y, **Lam JKW**, Leung SWS, Liang W. Delivery of RNAi therapeutics to the airways – from bench to bedside. *Molecules* 2016; 21(9): e1249
 28. Xu Y, Liang W, Qiu Y, Cespi M, Palmieri GF, Mason AJ, **Lam JKW***. Incorporation of a nuclear localization signal in pH responsive LAH4-L1 peptides enhances transfection and nuclear uptake of plasmid DNA. *Molecular Pharmaceutics* 2016; 13(9): 3141-3152
 29. Man DKW, Chow MYT, Casettari L, Gonzalez-Juarrero M, **Lam JKW***. Potential and development of inhaled RNAi therapeutics for the treatment of pulmonary tuberculosis. *Advanced Drug Delivery Reviews* 2016; 102: 21-32
 30. Rajabnezhad S, Casettari L, **Lam JKW**, Nomani A, Torkamani MR, Palmieri GF, Rajabnejad MR, Darbandi MA. Pulmonary delivery of rifampicin microspheres using lower generation polyamidoamine dendrimers as a carrier. *Powder Technology* 2016; 291: 336-374
 31. Perinelli DR, Cespi M, Bonacucina G, Naylor A, Whitaker M, **Lam JKW**, Howdle SM, Casettari L, Palmieri GF. PEGylated biodegradable polyesters for PGSS microparticles formulation: processability, physical and release properties. *Current Drug Delivery* 2016; 13(5): 673-681
 32. Perinelli DR, Casettari L, Cespi M, Fini F, Man DKW, Giorgioni G, Canala S, **Lam JKW**, Bonacucina G, Palmieri GF. Chemical-physical properties and cytotoxicity of *N*-decanoyl amino acid-based surfactants: Effect of polar heads. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*. 2016; 492: 38-46
 33. Martarelli D, Casettari L, Shalaby KS, Soliman ME, Cespi M, Bonacucina G, Fagioli L, Perinelli DR, **Lam JKW**, Palmieri GF. Optimization of melatonin dissolution from extended release matrices using artificial neural networking. *Current Drug Delivery*. 2016; 13(4): 565-573
 - 2015 34. Chow MYT, **Lam JKW***. Dry powder formulation of plasmid DNA and siRNA for inhalation. *Current Pharmaceutical Design*. 2015; 21(27): 3854-3866
 35. **Lam JKW***, Chow MYT, Zhang Y, Leung SWS. siRNA versus miRNA as therapeutics for gene silencing. *Molecular Therapy – Nucleic Acids*. 2015; 4(9): e252
 36. Wang S, Tong Y, Ng TB, Lao L, **Lam JKW**, Zhang Y, Zhang ZJ, Sze SCW. Network pharmacological identification of active compounds and potential actions of *Erxian decoction* for alleviating menopause-related symptoms. *Chinese Medicine*. 2015; 10:19
 37. Kwok PCL, Grabarek A, Chow MYT, Lan Y, Li JCW, Casettari L, Mason AJ, **Lam JKW***. Inhalable spray-dried formulation of D-LAK antimicrobial peptides targeting tuberculosis. *International Journal of Pharmaceutics*. 2015; 491(1-2): 367-374

38. Wong KL, Lai YM, Li KW, Lee KF, Ng TB, Cheung HP, Zhang YB, Lao L, Wong RNS, Shaw PC, Wong JH, Zhang ZJ, **Lam JKW**, Ye WC, Sze SCW. A novel, stable, estradiol-stimulating, osteogenic yam proteins with potential for the treatment of menopausal syndrome. *Scientific Reports*. 2015; 5: 10179
39. Man DKW, Casettari L, Cespi M, Bonacucina G, Palmieri GF, Sze SCW, Leung GPH, **Lam JKW***, Kwok PCL. Oleanolic acid loaded PEGylated PLA and PLGA nanoparticles with enhanced cytotoxic activity against cancer cells. *Molecular Pharmaceutics*. 2015; 12(6): 2112-2125
40. Liang W, Chow MYT, Lau PN, Zhou QT, Kwok PCL, Leung GPH, Mason AJ, Chan HK, Poon LLM, **Lam JKW***. Inhalable dry powder formulations of siRNA and pH responsive peptides with antiviral activity against H1N1 influenza virus. *Molecular Pharmaceutics* 2015; 12(3): 910-921
- 2014 41. **Lam JKW***, Xu Y, Worsley AJ, Wong ICK. Oral transmucosal drug delivery for pediatric use. *Advanced Drug Delivery Reviews*. 2014; 73: 50-62
42. Liang W, Kwok PCL, Chow MYT, Tang P, Mason AJ, Chan HK, **Lam JKW***. Formulation of pH responsive peptide as inhalable dry powders for pulmonary delivery of nucleic acids. *European Journal of Pharmaceutics and Biopharmaceutics*. 2014; 86(1): 64-73
43. Lan Y, Lam JT, Siu GKH, Yam WC, Mason AJ, **Lam JKW***. Cationic amphipathic D-enantiomeric antimicrobial peptides with *in vitro* and *ex vivo* activity against drug-resistant *Mycobacterium tuberculosis*. *Tuberculosis*. 2014; 94(6): 678-689
44. **Lam JKW***, Worsley AJ. What is the future of siRNA therapeutics? *Journal of Drug Design and Research*. 2014; 1(1): 1005
45. Xu Y, Yuen PW, **Lam JKW***. Intranasal DNA vaccine for protection against respiratory infectious diseases – the delivery perspectives. *Pharmaceutics*. 2014; 6(3): 378-415
- 2013 46. Tripathy N, Lan Y, **Lam JKW**, Vanhoutte PM, Hahn YB. Comprehensive study on the toxicology of surface-coated ZnO nanoparticles in human alveolar adenocarcinoma (A549) cells. *Science of Advanced Materials*. 2013; 5(4): 421-429
47. Ye Y, Xu Y, Liang W, Leung GPH, Cheung KH, Zheng C, Chen F, **Lam JKW***. DNA loaded chitosan oligosaccharide nanoparticles with enhanced permeability across Calu-3 cells. *Journal of Drug Targeting*. 2013; 21(5): 474-486
48. Abbate V, Liang W, Patel J, Lan Y, Capriotti L, Iacobucci V, Bui TT, Chaudhuri P, Kudsiova L, Vermeer LS, Chan PFL, Kong X, Drake AF, **Lam JKW**, Bansal SS, Mason AJ. Manipulating the pH response of 2,3-diaminopropionic acid rich peptides mediate highly effective gene silencing with low-toxicity. *Journal of Controlled Release*. 2013; 172(3): 929-938
49. Liang W, Mason AJ, **Lam JKW**. Western blot analysis to evaluate siRNA delivery by pH responsive peptides. In Moll J. and Colombo R. (Eds.) Target Identification and Validation in Drug Discovery, Methods in Molecular Biology Series. 2013; Vol. 986 ISBN 978-1-62703-310-7 Humana Press, New York, Part III Chapter 5 pp. 73-8
- 2012 50. **Lam JKW**, Liang W, Lan Y, Chaudhuri P, Chow MYT, Witt K, Kudsiova L, Mason AJ. Effective endogenous gene silencing mediated by pH responsive peptides proceeds via multiple pathways. *Journal of Controlled Release*. 2012; 158(2): 293-303

51. **Lam JKW***, Liang W, Chan HK. Pulmonary delivery of therapeutic siRNA. *Advanced Drug Delivery Reviews*. 2012; 64(1): 1-15
52. Vermeer LS, Lan Y, Abbate V, Ruh E, Bui TT, Wilkinson LJ, Kanno T, Jumagulova E, Kozłowska J, Patel J, McIntyre CA, Yam WC, Siu G, Atkinson RA, **Lam JKW**, Bansal SS, Drake AF, Mitchell GH, Mason AJ. Conformational flexibility determines selectivity and antibacterial, antiplasmodial, and anticancer potency of cationic α -helical peptides. *Journal of Biological Chemistry*. 2012; 287(41): 34120-34133
53. Liang W, **Lam JKW**. Endosomal escape pathways in non-viral nucleic acid delivery systems. In Ceresa B. (Ed.) *Molecular Regulation of Endocytosis*. 2012; ISBN 980-953-015-0, InTech Open Access Publisher, Chapter 17 pp 421-467
54. Casettari L, Vllasaliu D, **Lam JKW**, Soliman M, Illum L. Biomedical applications of amino acid modified chitosans: a review. *Biomaterials*. 2012; 33(30): 7565-7583
55. Xu Y, **Lam JKW**, Wong ICK, Iessa N. Benefits of buccal midazolam in paediatric patients. *Hospital Pharmacy Europe*. 2012; 65: 55-58
- 2011 56. **Lam JKW***, Armes SP, Stolnik S. The involvement of microtubules and actin filaments in the intracellular transport of non-viral gene delivery vector. *Journal of Drug Targeting*. 2011; 19(1): 56-66
- 2010 57. Lan Y, Yan Y, Kozłowska J, **Lam JKW**, Drake A, Mason AJ. Structural contributions to the intracellular targeting strategy of antimicrobial peptides. *Biochimica et Biophysica Acta – Biomembranes*. 2010; 1798(10): 1934-1943
58. Davies JT, **Lam JKW**, Tomlins PE, Marshall D. An in vitro multi-parametric approach to measuring the effect of implant surface characteristics on cell behaviour. *Biomedical Materials*. 2010; 5(1): 15002-15009
59. Wang Y, **Lam JKW**, Zhang B, Tomlins P, Li X, Alpar O, Coombes AGA. Biomechanical characterisation of a micro/macroporous polycaprolactone tissue integrating vascular graft. *Cardiovascular Engineering and Technology*. 2010; 1(1): 202-215
60. **Lam JKW**, Armes SP, Lewis AL, Stolnik S. Folate conjugated phosphorylcholine-based polycations for specific targeting gene delivery. *Journal of Drug Targeting*. 2009; 17(7): 512-523
- 2009 61. Forbes AB, **Lam JKW**, Tomlins P. Capturing local and anisotropic behaviour in surface topography. *Wear*. 2009; 266(5-6): 527-529
- Before 2009 62. Chim YTA, **Lam JKW**, Ma Y, Armes SP, Lewis AL, Roberts CJ, Stolnik S, Tendler SJB, Davies MC. Structural study of DNA condensation induced by novel phosphorylcholine –based copolymers for gene delivery and relevance to DNA protection. *Langmuir*. 2005; 21(8): 3591-3598
63. **Lam JKW**, Ma Y, Armes SP, Lewis AL, Baldwin T, Stolnik S. Phosphorylcholine – polycations diblock copolymers as synthetic vectors for gene delivery. *Journal of Controlled Release*. 2004; 100(2): 293-312