H.J. XIAO

Research Interests

Drug Delivery Systems	Drug self-delivery systems and carrier-based drug delivery systems for Chemotherapy & Photodynamic therapy (PDT);
Crystal Engineering	Fluorescence-based molecular Screening and Imaging; Understanding the intermolecular interactions in the context of crystal packing and design of molecular solid state structures with desired properties;

Research Experience

09/2016 - Present	Research Project: "Construction of smart drug self-delivery systems for cancer therapy", at Centre of Polymer Systems (CPS), Tomas Bata University.
Mar. 2019	"HR Mobility" – Research experience in Chengdu University of TCM. ***In vivo*** therapeutic effects of anti-cancer drugs on nude mice .
11/2013 - 07/2015	Master Thesis Project: "Effects of X-shaped reduction-sensitive amphiphilic block copolymer on drug delivery" (PDF, 32 M), with emphases on micellar self-assembled behaviour, physical stability, intracellular drug delivery efficiency and anticancer efficacy, at Institute of Chinese Medical Sciences (ICMS), University of Macau.
03/2014 - 10/2014	Master Research Project: "Extraction and purification of active compounds from Chinese herbals", at Institute of Chinese Medical Sciences (ICMS), University of Macau.
03/2013 - 07/2013	Undergraduate Thesis Project: "5-FU loaded PLGA Nano-particles conjugated with VEGF: An active targeting drug delivery system for treatment of gliomas", at Faculty of Life Science and Technology (FLST), China Pharmaceutical University.

Patents and Publications

Original Article	H. Xiao, Y. Guo, H. Liu, Y. Liu, Y. Wang, C. Li, J. Cisar, D. Skoda, I. Kuritka, L. Guo*, V. Sedlarik*. Structure-based design of charge-conversional drug self-delivery systems for better targeted cancer therapy (Biomaterials, In press, 2019. IF: 10.273)
Patent	H. Xiao, V. Sedlarik. Self-delivered nano drugs and methods of making such (2018, EP)
Original Article	H. Xiao, V. Sedlarik*. A rapid and sensitive HPLC method for simultaneous determination of irinotecan hydrochloride and curcumin in a co-delivered nano system (In press, 2019)

Original Article	H. Xiao*, L. Wang. Effects of X-shaped reduction-sensitive amphiphilic block copolymer on drug delivery (). (International Journal of Nanomedicine, 2015. IF: 4.383).

Conferences

Oct. 2019	Poly-Char World Forum on Advanced Materials, Oral Presentation on "A drug self-delivery system for cancer therapy ", at Naples,Italy).
Oct. 2016	NewGen Conference: Hydrogel/Bio-mineralised Biomaterial, Oral Presentation on "Polymeric micellar nano systems for drug delivery", at Zlin,Czech Republic.

Academic Education

Czechia 09/2016 - Present	Ph.D. Candidate in Material Sciences and Engineering, Tomas Bata University Research emphases: Novel Drug Delivery Systems for Cancer Therapy.
Macau 09/2013 - 09/2015	M.S. in Chinese Medicinal Science, University of Macau Research emphases: Molecular Pharmaceutics, Targeted Drug Delivery, Evaluation of Biosafety (GPA: 3.25 / 4.0)
Nanjing 09/2009 - 07/2013	B.S. in Pharmaceutics, China Pharmaceutical University Study emphases: Pharmaceutics, Pharmaceutical Analysis, Medicinal Chemistry, Pharmacology (GPA: 3.44 / 4.0)

Skills

Professional Skills	Design and synthesis of functional biopolymers Pharmaceutical Preparation and Evaluation ***in vitro*** and ***in vivo*** Evaluation (Biosafety, Delivery efficiency and Drug efficacy)
Languages	English (Professional working proficiency) Mandarin Chinese (Native)

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