

# H.J. XIAO

## Research Interests

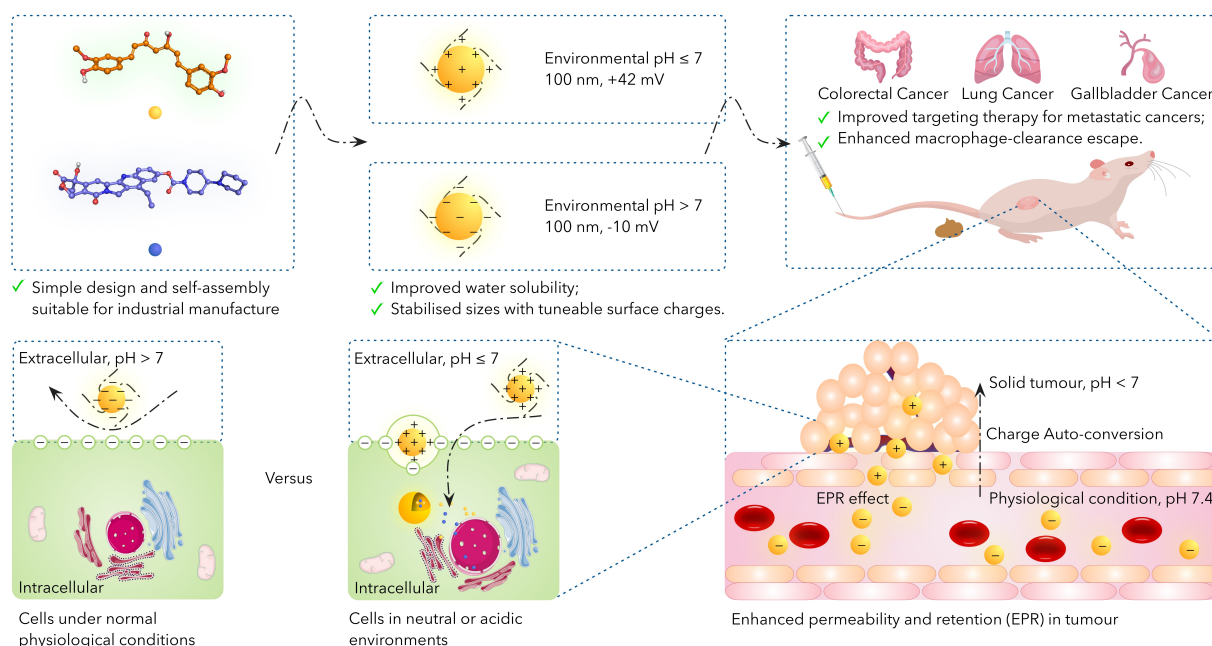
### Drug Delivery Systems

Self-delivered nanoparticle systems for various applications, including Cancer therapy (CT, PDT), Bio-imaging (NIR, X-ray), Antimicrobials, Anti-viruses, Light conversion and so on...

## Patents and Publications

### Research 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, 2019. IF: 10.273)



### Patent

H. Xiao, V. Sedlarik. Injectable anticancer agent. (2019, CZ)

### Research Article

H. Xiao, V. Sedlarik\*. A rapid and sensitive HPLC method for simultaneous determination of irinotecan hydrochloride and curcuminoids in a co-delivered nano system. (Under review, 2019)

### Patent

H. Xiao, V. Sedlarik. Self-delivered nano drugs and methods of making such. (2019, EP, CN, JP, KR, VN)

### Research 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).

## Research Experience

09/2016 - 06/2020	Ph.D. Project: "Construction of smart drug self-delivery systems for cancer therapy", at Centre of Polymer Systems, Tomas Bata University.
03/2020 - 05/2020	Academic Visitor at University of California, Merced. "A drug self-delivery system for cancer treatment based on photodynamic therapy."
03/2019 - 04/2019	"HR Mobility" – Research experience in Chengdu University of TCM. <i>In vivo</i> therapeutic effects of anti-cancer drugs on nude mice .
09/2013 - 07/2015	Master Thesis Project: "Effects of X-shaped reduction-sensitive amphiphilic block copolymer on drug delivery" ( <a href="#">📄 PDF, 32 M</a> ), 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.

## 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

Czech Republic 09/2016 - 06/2020	Ph.D. Candidate in Material Sciences and Engineering, <a href="#">Tomas Bata University</a>  Research emphases: Novel Drug Delivery Systems for Cancer Therapy.
Macau, China 09/2013 - 06/2015	M.S. in Chinese Medicinal Science, <a href="#">University of Macau</a>  Research emphases: Molecular Pharmaceutics, Targeted Drug Delivery, Evaluation of Biosafety (GPA: 3.25 / 4.0)
Nanjing, China 09/2009 - 07/2013	B.S. in Pharmaceutics, <a href="#">China Pharmaceutical University</a>  Study emphases: Pharmaceutics, Pharmaceutical Analysis, Medicinal Chemistry, Pharmacology (GPA: 3.44 / 4.0)

## Skills

### Professional Skills

Design of various functional nanoparticles

Pharmaceutical Preparation and Characterisation (DLS, PL, SEM, HPLC, XRD)

*in vitro* and *in vivo* Evaluation (Biosafety, Delivery efficiency and Drug efficacy)

### Languages

English (Professional working proficiency)

Mandarin Chinese (Native)

## References

Prof. Vladimír Sedlářik,  
Supervisor of my Ph.D.  
Study, Rector of Tomas  
Bata University

Changqin Li, Assoc.  
Professor at University of  
California, Merced

Ivo Kuřitka, Assoc. Professor  
at Tomas Bata University

To love, to live.

To embrace tomorrow.

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