Chuang Zhang

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EDUCATION

M.S. in Pharmaceutical science, Shenyang Pharmaceutical University, 2020 to 2023
Overall GPA: 3.68/4 Ranking: top 7%
B.S. in Pharmacy, Shenyang Pharmaceutical University, 2016 to 2020
Overall GPA:3.43 Major GPA: 3.56/4

RESEARCH EXPERIENCE

Project: Development of a weak-base 5-fluorouracil derivative loaded liposomes Dec. 2020-May. 2021

- Synthesized a weak-base derivative, keeping it encapsulated in liposomes via ammonium sulfate gradient method.
- Aim to reduce toxicity of 5-fluorouracil, prolong its half-life ,keep it targetable owing to EPR effect and increase potency.

Project: Synthetically lethal nanoparticles for treatment of endometrial cancer Nov.2021-Apr.2022

- Delivery of nintedanib and docetaxel derivative by liposomes for synthetically lethal treatment of lung cancer(cell type:H-1299)
- Aim to increase the treatment index of docetaxel

Project: Study on liposomes of acidic derivatives of Larotaxel Jun.2021- Oct.2022

- Synthesis of three acidic derivatives of Larotaxel
- Investigate the encapsulation efficiency of the three derivatives and their inhibiton effect on MCF-7 breast cancer.

Project: Promote Spatiotemporal Delivery of Reduction-Sensitive Nanoparticles at the "Cellular Level" and Synergize PD-1 Blockade Therapy Nov.2020-2022.May.

- improve the penetration of NPs in tumor tissues as well as the accumulation of LTX in cancer cells(cell type:MCF-7)
- glutathione pulse therapy is designed to promote reduction-sensitive Larotaxel prodrug NPs to escape the phagocytosis of macrophages and penetrate through the stromal barrier established by CAF

PUBLICATION

- Dong S, Zhang Y, Guo X, **Zhang C**, Wang Z, Yu J, Liu Y, Li C, Hu Y, Sun B, Sun M, Zhang H, Ouyang D, He Z, Wang Y. Glutathione Pulse Therapy: Promote Spatiotemporal Delivery of Reduction-Sensitive Nanoparticles at the "Cellular Level" and Synergize PD-1 Blockade Therapy. Adv Sci.

ACTIVITIES & AWARDS

- The First Prize Scholarship for graduate studies, Shenyang Pharmaceutical University 2020-2021
- The First Prize Scholarship, Shenyang Pharmaceutical University 2019-2020
- The First Prize Scholarship, Shenyang Pharmaceutical University 2018-2019
- The Second Prize Scholarship, Shenyang Pharmaceutical University 2017-2018
- The Third Prize Scholarship, Shenyang Pharmaceutical University 2016-2017

SKILLS

- **Animal experimental skills**: proficient in implant subcutaneously in mice/nude mice with tumor cells; i.v. (intravenous injection) in mice; blood taken from rat orbit for pharmacokinetics, Transmission Electron Microscope etc.
- **Cell experiment skills**: cell culture, MTT assay, western blot etc.
- **Instruments**: proficiently use LC-MS， Flow cytometry, HPLC, Malvern ZetaSizer, Microplate reader, imaging, TME etc.
- **Computer Skills**: AI, PS, GraphPad Prism, Origin, Microsoft Office (Word, Excel, and PowerPoint) etc.