

# Chuang Zhang

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## EDUCATION

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M.S. in Pharmaceutical science, Shenyang Pharmaceutical University, 2020 to 2023

Overall GPA: 3.68/4      Ranking: top 5%

B.S. in Pharmacy, Shenyang Pharmaceutical University, 2016 to 2020

Overall GPA:3.43      Major GPA: 3.56/4

## RESEARCH EXPERIENCE

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**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 inhibition 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

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- 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

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| • 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

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- **Animal experimental skills:** proficient in implanting subcutaneously in mice/nude mice with tumor cells; i.v. (intravenous injection) in mice; blood taken from rat orbit for pharmacokinetics, 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, Confocal Laser Scanning Microscope ,etc.
- **Computer Skills:** AI, PS, GraphPad Prism, Origin, Microsoft Office (Word, Excel, and PowerPoint) ,etc.