Nan Hua, Ph.D.

Gainesville, FL ▪ (352) 226-9217 ▪ nan.hua@ufl.edu ▪ University of Florida

THERAPEUTIC AREA EXPERTISE

Pharmacodynamics | Tumor immunology| Bioinformatics | Drug discovery

EDUCATION

Ph.D., Pharmaceutical Sciences, University of Florida, Gainesville, FL — Expected Graduation 2024
B.S., Pharmacology, China Pharmaceutical University, China — Graduated 2008

PROFESSIONAL EXPERIENCE

Graduate intern, Clinical pharmacology — 05/2023 – 08/2023
Gilead Sciences, Foster City, CA, *Instructed by Dr. Buyun Chen*

- Responsibilities: using physiologically based pharmacokinetic (PBPK) modeling approach to evaluate pharmacokinetics in HIV-treatment naïve patients.
- Skills: Simcyp, R, DIDB database

Graduate Research Assistant — 09/2019 – Present
University of Florida College of Pharmacy, | *Instructed by Prof. Weizhou Zhang*

- Responsibilities: Drug discovery projects to find biomarkers and drug to increase the efficiency of immunotherapy like CTLA4 or anti-PD 1 treatment.
- Skills: molecular biology, animal experiments, flow cytometry, RNA-sequencing

Internship at University of Pennsylvania, USA | *Instructed by Prof. Julie A. Blendy* — 01/2018 – 06/2018

- Responsibilities: PCR, immunocytochemistry, in vivo behavioral tests, tissue slicing, perfusion.
- Achievements: Established chronic unpredictable stress model in mice and identified changes of the distribution of the ribosomes in lateral habenular nucleus after ketamine administration. The changes of ribosomes in brain specific area could lead to a discovery of a new target for depression.

Internship at Drexel University, USA | *Instructed by Prof. Huijuan Hu* — 07/2017 – 08/2017

- Responsibilities: cultured primary cells collected from dorsal spinal cord of fetal mice, processed with KN93 and calcium solution, Extracted protein for Western blot.
- Achievements: analyzed quantitatively to confirm whether KN93 (inhibitor of CaMK II) can lower the expression of phosphorylated CaMK after treating cells. (Phosphorylation CaMK is associated with pain).

Internship at Drexel University, USA | *Instructed by Prof. Huijuan Hu* — 08/2016 – 09/2016

- Responsibilities: genotyped STIM1/STIM2 and Orial1 mice, learned principle of pain, observed technologies of Chips, Immunostaining, ELISA, Confocal, Patch clamp, Calcium image, etc.
- Achievements: mastered techniques like genotyping, nucleic acid quantification, RT-PCR, formal operation of making solution, and distinguished the mice's genotypes for subsequent experiments.

The establishment and application of high content detection model on neurite growth (National), CHN | Instructed by Prof. Ling He — 05/2016 - 05/2017

- Responsibilities: established a high content screening model of neurite growth, searched effective compounds for the treatment of Alzheimer's disease from compound library.
- Achievements: mastered the usage of Morris water maze, Passive avoidance, Open-field test, and screened out a compound can promote the nerve cell axon with ATRA and improve cognitive function in vitro experiments.

CERTIFICATES & TRAININGS

- Population PK/PD data analysis with NONMEM, University at Buffalo, 2023
- Principles of clinical pharmacology, NIH, Issued 2023
- Introduction to the principles and practice of clinical research, NIH, 2023
- Simcyp focused workshop: Best Practice, Certara, 2023
- UCSF-Stanford CERSI immersion course in drug discovery, development, and regulation, 2023

PUBLICATIONS

1. Sajid Khan, Janet Wiegand, Peiyi Zhang, Wanyi Hu, Dinesh Thummuri, Vivekananda Budamagunta, **Nan Hua**, Lingtao Jin, Carmen J Allegra, Scott E Kopetz, Maria Zajac-Kaye, Frederic J Kaye, Guangrong Zheng, Daohong. *BCL-XL PROTAC degrader DT2216 synergizes with sotorasib in preclinical models of KRAS^{G12C}-mutated cancers.* PMID: 35260176
2. Dongwen Lv, Pratik Pal, Xingui Liu, Yannan Jia, Dinesh Thummuri, Peiyi Zhang, Wanyi Hu, Jing Pei, Qi Zhang, Shuo Zhou, Sajid Khan, Xuan Zhang, **Nan Hua**, Qingping Yang, Sebastian Arango, Weizhou Zhang, Digant Nayak, Shaun K Olsen, Susan T Weintraub, Robert Hromas, Marina Konopleva, Yaxia Yuan, Guangrong Zheng, Daohong Zhou. *Development of a BCL-xL and BCL-2 dual degrader with improved anti-leukemic activity.* PMID: 34824248
3. Pratik Pal, Dinesh Thummuri, Dongwen Lv, Xingui Liu, Peiyi Zhang, Wanyi Hu, Saikat K Poddar, **Nan Hua**, Sajid Khan, Yaxia Yuan, Xuan Zhang, Daohong Zhou, Guangrong Zheng. *Discovery of a Novel BCL-XL PROTAC Degrader with Enhanced BCL-2 Inhibition.* PMID: 34533954
4. Xu-Xu Zhuang, Xuan Zang, Guang-Yao Zheng, **Nan Hua**, Yi Sun, Yu-Hui Hu, Ling He. *Polyprenols mitigate cognitive dysfunction and neuropathology in the APP/PS1 mouse.* PMID: 29468792
5. Xuan Zang, Zhao-Yan Cheng, Yi Sun, **Nan Hua**, Li-Hua Zhu, Ling He. *The ameliorative effects and underlying mechanisms of dopamine D1-like receptor agonist SKF38393 on Aβ1–42-induced cognitive impairment. PMID*: 28939187
6. Xuan Zang, Zhao-Yan Cheng, Yi Sun, **Nan Hua**, Li-Hua Zhu, Ling He. *The ameliorative effects and underlying mechanisms of dopamine D1-like receptor agonist SKF38393 on Aβ1–42-induced cognitive impairment. PMID*: 28939187
7. Yu-Hang Gong, **Nan Hua**, Xuan Zang, Tao Huang, Ling He. *Melatonin ameliorates Aβ1-42-induced Alzheimer's cognitive deficits in mouse model.* PMID: 25858697
8. Madison E Carelock, Rohan P Master, Myung-Chul Kim, Zeng Jin, Lei Wang, Chandra K Maharjan, **Nan Hua**, Umasankar De, Ryan Kolb, Yufeng Xiao, Daiqing Liao, Guangrong Zheng, Weizhou Zhang. *Targeting intracellular proteins with cell type-specific functions for cancer immunotherapy.*
9. Sajid Khan, Patrick Kellish, Nick Connis, Dinesh Thummuri, Janet Wiegand, Peiyi Zhang, Xuan Zhang, Vivekananda Budamagunta, **Nan Hua**, Yang Yang, Umasankar De, Lingtao Jin, Weizhou Zhang, Guangrong Zheng, Robert Hromas, Christine Hann, Maria Zajac-Kaye, Frederic J Kaye, Daohong Zhou. *Co-targeting BCL-XL and MCL-1 with DT2216 and AZD8055 synergistically inhibit small-cell lung cancer growth without causing on-target toxicities in mice.* PMID: 36588105.
10. Jing Pei, Yufeng Xiao, Xingui Liu, Wanyi Hu, Amin Sobh, Yaxia Yuan, Shuo Zhou, **Nan Hua**, Samuel G Mackintosh, Xuan Zhang, Kari B Basso, Manasi Kamat, Qingping Yang, Jonathan D Licht, Guangrong Zheng, Daohong Zhou, Dongwen Lv. *Piperlongumine conjugates induce targeted protein degradation.* PMID: 36750097.