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**EDUCATION**

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**Ph.D.,** CIAC, CAS, China (2004-2010) ; Advisor : Prof. Xiaogang Qu (曲晓刚)

**B.Eng.,** Beijing Technology and Business University, China (2000-2004)

**EMPLOYMENT**

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**February 2015-Present,** Principal Investigator (Professor) of Chemical Biology Laboratory, CIAC, CAS

**February 2010-February 2015**: Research Associate, Department of Chemistry& Biochemistry, The Biofrontiers Institute, Department of Psychology & Neuroscience, The Center for Neuroscience, University of Colorado at Boulder, co-mentored by Professor Hang Hubert Yin （尹航）and Distinguished Professor Linda R Watkins

**RESEARCHINTERESTS**

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I am interested in the frontiers at the interfaces of chemistry, biology and would like to work on the questions derived from the unmet medical needs (bedside to benchside). The ultimate goal of my research is to provide solutions to those challenges (benchside to bedside). Signaling pathways contributed to pathological disease conditions are dissected. Small molecule agents are discovered for interrogating protein-protein interactions, signal transductions and the behaviors of the model organisms, which will provide potential drugs for the treating of cancer, neuropathic pain, drug abuse and addiction, autoimmune diseases, neurodegenerative diseases, inflammation and other pathological conditions.

**PUBLICATIONS**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**37. Wang, X.**\*; Yin, H\*. (**2015**) Small molecule modulators of Toll-like receptors, ***Acc. Chem. Res.*** (**IF=22.323**), 48, in preparation. (\*Corresponding author; Invited review)

**36.Wang, X.**\*; Zhang, Y.; Hutchinson, M. R.; Rice, K. C.; Yin, H.; Watkins, L. R. (**2015**) Pharmacological characterization of the opioid inactive isomers (+)-naltrexone and (+)-naloxone as Toll-like receptor 4 antagonists.***Br. J. Pharmacol.*（IF=4.842）,** 172, in reviewing. (\*Corresponding author)

**35.** Selfridge, B. R. **#**; **Wang, X. #**; Zhang, Y.; Yin, H.; Watkins, L. R.; Jacobson, A. E.; Rice, K. C. (**2015**) Structure activity relationships of (+)-naltrexone-inspired Toll-like receptor 4 (TLR4) antagonists. ***J. Med. Chem.*（IF=5.447）**, 58, 5038–5052. **(#**These authors contribute equally to this work**)**

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**33.** Smith, C. **#**; **Wang, X.#** ; Yin, H. (**2015**) Caspases come together. ***Trends Immunol.*（IF=10.399）**, 36, 59-61. **(#**These authors contribute equally to this work**)**

**32.**Wang, X.; **Wang, X.**; Feng, Y.; Zhu, M.; Yin, H.; Guo, Q.; Meng, X. (**2015**) A two-photon fluorescent probe for detecting endogenous hypochlorite in living cells. ***Dalton Trans.*（IF=4.197）**, 44, 6613-6619.

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**28.**Grace, P. M.; Ramos, K. M.; Rodgers, K. M.; **Wang, X.**; Hutchinson, M. R.; Lewis M. T.; Morgan, K. N.; Kroll, J. L.; Taylor, F. R.; Strand, K. A.; Zhang, Y.; Berkelhammer, D.; Huey, M.; Greene, L. I.; Cochran, T. A.; Yin, H.; Barth, D. S.; Johnson, K. W.; Rice, K.; Maier, S. F.; Watkins, L. R. (**2014**) Activation of adult rat CNS endothelial cells by opioid-induced TLR4 signaling induces proinflammatory, biochemical, morphological, and behavioral sequelae, ***Neuroscience*（IF=3.357）**, 280, 299-317.

**27. Wang, X.**, Cochran, T.A.; Hutchinson, M. R.; Yin, H.; Watkins, L. R. (**2014**) “Drug addiction” in ***Microglia in health and disease*** (Sierra, A.; Tremblay, M. E. Ed.), Springer-Verlag (Berlin Heidelberg), 299-317.

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**25. Wang, X.,** Smith, C.; Yin, H. (**2013**) Targeting Toll-like receptors with small molecule agents,***Chem. Soc. Rev.*（IF=33.383）**, 42, 4859-4866. (Cover article)

**24. Wang, X**.; Grace, P. M.; Pham, M. N.; Cheng, K.; Strand, K. A.; Smith, C.; Li, J.; Watkins, L. R.; Yin, H. (**2013**)Rifampin inhibits Toll-like receptor 4 signaling by targeting myeloid differentiation protein 2 and attenuates neuropathic pain, ***FASEB J.*（IF=5.043）**, 27, 2713-2722

**23**. Li, J.**#**; **Wang, X.#**; Zhang, F.; Yin, H (**2013**) Toll-like receptors as the therapeutic targets of autoimmune connective tissue diseases, ***Pharmacol. Ther.*（IF=9.723）**, 138, 441-45 **(#**These authors contribute equally to this work**)**

**22. Wang, X.**; Saludes, J. P.; Zhao, T. X.; Csakai, A.; Fiorini, Z.; Chavez, S. A.; Li, J.; Lee, G. I.; Varga, K.; Yin, H. (**2012**) Targeting the lateral interactions of transmembrane domain 5 of Epstein–Barr virus latent membrane protein 1,***Biochim. Biophys. Acta-Biomembranes*（IF=3.836）**, 1818, 2282-2289. (This research has been highlighted by NewsRx, the world’s largest producer of health news.)

 **21. Wang, X.**; Fiorini, Z.; Smith T.; Zhang, Y.; Li, J.; Watkins, L. R.; Yin, H. (**2012**) Repositioning antimicrobial agent pentamidine as a disruptor of the lateral interactions of transmembrane domain 5 of EBV latent membrane protein 1,***PLoS One*（IF=3.234）**, e47703

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**15**. **Wang, X.**; Qu, K.; Xu, B.; Ren, J.; Qu, X. (**2011**) Microwave assisted one-step green synthesis of multicolorphotoluminescentcarbon dots without surface passivation reagents, ***J. Mater. Chem.*（IF=6.626）**,21, 2445-2450.

**14**.**Wang, X.**; Qu, K.; Xu, B.; Ren, J.; Qu, X. (**2011**) Multicolor luminescent carbon nanoparticles: synthesis, supramolecular assembly with porphyrin, intrinsic peroxidase-like catalytic activity and application, ***Nano Res.*（IF=7.010）**,4, 908-920. **(**This research has been featured by***Life Science Weekly***)

**13. Wang, X.;** Ren, J.; Miyoshi, D.; Sugimoto, N.; Qu, X. (**2011**) Label-free colorimetric and quantitative detection of cancer marker protein using noncrosslinking aggregation of Au/Ag nanoparticles induced by target-specific peptide probe,***Biosens. Bioelectron***.**（IF=6.409）**,26, 4804-4809.

**12**. **Wang, X.**; Chen, Y.; Ren, J.; Qu, X. (**2011**) Small interfering RNA for effective cancer therapies, ***Mini. Rev. Med. Chem.*（IF=2.903）**, 11, 114-124.

**11.** Song, Y.;**Wang, X**.; Zhao, C.; Qu, K.; Ren, J.; Qu, X. (**2010**) Label-free colorimetric detection of single nucleotide polymorphism by using single-walled carbon nanotube intrinsic peroxidase-like activity, ***Chem. Eur. J*.（IF=5.731）**, 16, 3617-3621.

**10. Wang, X.;** Geng, J.;Miyoshib,D.; Ren, J.; Sugimoto, N.; Qu, X. (**2010**) A rapid and sensitive “add-mix-measure” assay for multiple proteinases based on one gold nanoparticle–peptide–fluorophore conjugate, ***Biosens. Bioelectron***.**（IF=6.409）**, 26, 743-747.

**9. Wang, X.**; Wang, C.; Qu, K.; Song, Y.; Ren, J.; Miyoshi, D.; Sugimoto, N.; Qu, X. (**2010**). Ultrasensitive and selective detection of a prognostic indicator in early-stage cancer using graphene oxide and carbon nanotubes, ***Adv. Funct. Mater*.（IF=11.805）**,20, 3967-3971. (Inner cover article; This work has been highlighted by WILEY-VCH Materials Views China, the leading nanotechnology website Nanowerk and several other media)

**8.** Peng, Y.;**Wang, X**.; Xiao, Y.; Feng, L.; Zhao, C.; Ren. J.; Qu, X. (**2009**) An i-motif quadruplex DNA-based biosensor for distinguishing single- and multi-walled carbon nanotubes, ***J. Am. Chem. Soc*.（IF=12.113）**,131, 13813-13818.

**7**. **Wang, X.**; Song, Y.; Ren, J.; Qu, X. (**2009**) Knocking-down cyclin A2 by siRNA suppresses apoptosis and switches differentiation pathways in K562 cells upon administration with doxorubicin, ***PLoS One*（IF=3.234）**, 4, e6665.

**6.**. Yu, H.;**Wang, X.**; Fu, M.; Ren, J.; Qu, X. (**2008**) Chiral metallo-supramolecular complexes selectively recognize human telomeric G-quadruplex DNA, ***Nucleic Acids Res.*（IF=9.112）**, 36, 5695-5703.

**5**. Shi, Q.;**Wang, X.**; Ren, J. (**2008**) Biophysical characterization of the interaction of p21 with calmodulin: a mechanistic study, ***Biophys. Chem.*（IF=1.986）**, 138, 138-143.

**4. Wang, X.**; Ren, J.; Qu, X. (**2008**) Targeted RNA interference of cyclin A2 mediated by functionalized single-walled carbon nanotubes induces proliferation arrest and apoptosis in chronic myelogenousleukemia K562 cells, ***ChemMedChem*（IF=2.968）**,3, 940-945. (It is one of the most cited papers ChemMedChempublished in 2008/2009)

**3**. **Wang, X.**; Ren, J.; Qu, X. (**2008**) Biophysical studies on the full-length human cyclin A2: protein stability and folding/unfolding thermodynamics, ***J. Phys. Chem. B*（IF=3.302）**, 112, 8346-8353.

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**CITATIONS & STATISTICS**

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1. <https://scholar.google.com/citations?hl=en&user=O1DLkoQAAAAJ&view_op=list_works>
2. <https://www.researchgate.net/profile/Xiaohui_Wang5>;

**FUNDING**

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3. Open funding of State Key Laboratory of Medicinal Chemical Biology, Nankai University, 201502006, 2015/05- 2017/04, 100 K RMB, PI.

4. Open funding of State Key Laboratory of Oncology in South China (Collaborator: Yixin Zeng, member of Chinese Academy of Sciences), Sun Yat-sen University, HN2015-01, 2015/06- 2016/05, 50 K RMB, PI.

**REVIEWING ACTIVITIES**

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Archives of Medical Science; Journal of Biomolecular Screening; Bioorganic & Medicinal Chemistry Letters; BioMed Research International; MedChemComm; Nutrients-Open Access Human Nutrition Journal; Brain Research Bulletin; Molecular Pharmacology; Scientific Reports; Journal of Materials Chemistry; Journal of Medicinal Chemistry; Psychoneuroendocrinology; Brain, Behavior, and Immunity