Resume of Xiaxia Guo

Basic Information

School :	School of Life and Health Sciences
Gender：	Female
Date of Birth：	19801102
Title：	Associate Professor
Education：	Ph.D of Philosophy
Tutor：	Master degree
Interest of research:	engaged in the design and synthesis of small molecule anticancer drugs, pharmacological research of drugs, research on drug delivery carriers, and protein-small molecule drugs.

Academic Background

- 2006-2009: PhD, Research Institute for Health Sciences (RIHS), University of Wolverhampton, UK, Major in Molecular Biology (awarded the Overseas Research Studentship (ORS) by the UK Higher Education Funding Council for England), Supervisor: Professor Wang Weiguang
- 2003-2005: Master's Degree, Nottingham Trent University, UK, Major in Applied Biology, Supervisor: Robert Rees
- 1999-2003: Bachelor's Degree, Lanzhou University, Major in General Chemistry

Enrollment Information

1. Enrollment Discipline: Pharmaceutical Engineering
2. Research direction: design and synthesis of small molecule anticancer drugs, pharmacological research of drugs
3. Enrollment Year: 2020-2021

Representative Projects

1. Research and Development of Human-derived Cell-penetrating Peptides (CPPs) for Drug Delivery
2. Synthesis and Effect Evaluation of Small Molecule Inhibitors for the Complex Protein Annexin A2 and S100A10
3. Investigation of the role of IL17B in tumor angiogenesis
4. NF-κB binding sites can be used as enhancers in human gene-directed enzyme prodrug therapy to achieve targeted treatment
5. The complex of disulfiram and copper ions inhibits the activity of NF-κB and increases the sensitivity of resistant cells to gemcitabine and 5-FU
6. Discovery and Expression Analysis of a Novel Gene Target Associated with Breast Cancer

Representative Articles

1. Bing Xu*, Xiaoxia Guo*, Sumi Mathew, Angel L Armesilla, James Cassidy, John L Darling, Weiguang Wang, Triptolide simultaneously induces reactive oxygen species, inhibits NF-κB activity and sensitizes 5-fluorouracil in colorectal cancer cell lines. Cancer Letters 2010; 291: 200-8 (*joint first authors)
2. Xiaoxia Guo, Shuchita Pandey, Bing Xu, Weiguang Wang, Disulfiram/copper complex inhibiting NF-κB activity and potentiating cytotoxic effect of gemcitabine on colon and breast cancer cell lines. Cancer Letters 2010; 290: 104-13
3. Xiaoxia Guo, Elisabeth Goessl, Elaina S.R. Collie-Duguid, James Cassidy, Vincent O'brien. Cell Cycle Perturbation and Acquired 5-Fluoracil Chemoresistance. Anticancer Research 2008; 28: 9-14
4. Xiaoxia Guo, Jeff Evans, Angel Armesilla, John Darling, Andreas Schatzlein, James Cassidy, Weiguang Wang. In vitro evaluation of cancer specific NF-κB-CEA enhancer-promoter system for gene-directed enzyme prodrug therapy in colon cancer cell lines. British Journal of Cancer 2007; 97: 745-54
5. Helene K Myrvang, Xiaoxia Guo, Chan Li and Lodewijk V Dekker. Protein interactions between surface Annexin A2 and S100A10 mediate adhesion of breast cancer cells to .17microvascular endothelial cells. FEBS 2013; 587(19),3210-3215
6. Andrew J. Sanders, Xiaoxia Guo, Malcolm D. Mason, and Wen G. Jiang, IL-17B Can Impact on Endothelial Cellular Traits Linked to Tumour Angiogenesis. Journal of Oncology 2010; Article ID 817375
7. Tummala R. K. Reddy, Chan Li, Xiaoxia Guo, Helene K. Myrvang, Peter M. Fischer, and Lodewijk V. Dekker., Design, Synthesis, and SAR Exploration of 1-Substituted 4-Aroyl-3-hydroxy-5-phenyl-1H-pyrrol-2(5H) -one Analogs as Inhibitors of the AnnexinA2–S100A10 Protein Interaction. Journal of Medicinal Chemistry 2011; 54(7),2080-2094
8. Reddy, T.R.K., Li, Chan., Guo, Xiaoxia, Fischer, P.M. and Dekker, L.V. Structure-based design, synthesis, and SAR exploration of pyrrole-2-one analogues as inhibitors of the AnnexinA2-S100A10 protein interaction: potential anti-angiogenesis therapeutics. Journal of Pharmacy and Pharmacology 2010; 62(10), 1373-1374
9. Reddy, T.R.K., Li, Chan., Guo, Xiaoxia, Fischer, P.M. and Dekker, L.V. Design, synthesis and SAR exploration of tri-substituted 1, 2, 4-triazoles as inhibitors of the annexin A2–S100A10 protein interaction. Bioorganic & Medicinal Chemistry 2014; 22(19), 5378-5391
10. Mingyue Chen, Xiaoxia Guo, and Lei Zhang. Unexpected Discovery and Expression of Amphibian Class II Endogenous Retroviruses. Journal of Virology 2021;95(3)1806-1820
11. Yuezhen Sun , Xiaoxia Guo*, Yarien Moreno , Qizhen Sun , Zhijun Yan* , Lin Zhang Sensitivity adjustable biosensor based on graphene oxide coated excessively tilted fiber grating, Sensors & Actuators：B. Chemical 2022;351(15):130832(*joint corresponding authors)