

GAN TIELIANG

Curriculum Vitae

State Key Laboratory of Bio-organic
Chemistry and Natural Products Chemistry,
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EDUCATION

Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences (SIOC)

Sept 2021 – Jun 2024

Master of Science (Chemical Biology)

Swiss Federal Institute of Technology Lausanne (EPFL)

Jan 2020 – Jul 2020

Exchange Program (Chemistry)

University of Chinese Academy of Sciences (UCAS)

Sept 2017 – Jun 2021

Bachelor of Science (Chemistry)

GPA: 3.77/4.00

Ranking: 8/30

PROJECTS AND RESEARCH EXPERIENCES

Characterization of the Potential Autophagy Receptor Protein 53BP1

Sept 2022 – Present

➤ INSTITUTION

State Key Laboratory of Bio-organic Chemistry and Natural Products Chemistry, Shanghai
Institute of Organic Chemistry, Chinese Academy of Sciences

➤ SUPERVISOR

Pan Lifeng

➤ SUMMARY

Biochemical, cell biological and structural biological characterization of interactions and localizations of the protein 53BP1 and its potential role as a novel autophagy receptor

The Potential Autophagic Role of Caspase 6, Caspase 8 and Caspase 14

Feb 2023 – Present

➤ INSTITUTION

State Key Laboratory of Bio-organic Chemistry and Natural Products Chemistry, Shanghai
Institute of Organic Chemistry, Chinese Academy of Sciences

➤ SUPERVISOR

Pan Lifeng

➤ SUMMARY

Biochemical, cell biological and structural biological characterization of interactions and localizations of the 3 caspases to reveal its other biological role

The Cytotoxicity of a *trans*-platinum Complex in Combination with PDS on HeLa Cells

Sep 2020 – Mar 2021

- INSTITUTION
Key Laboratory of Analytical Chemistry for Living Biosystems, Institute of Chemistry, Chinese Academy of Sciences
- SUPERVISOR
Wang Fuyi
- SUMMARY
Synthesis of the *trans*-platinum complex and cytotoxicity assay on different conditions in combination with DNA G-quadruplex inducer/stabilizer pyridostatin (PDS)
- RESULT
The G-quadruplex inducer/stabilizer compound PDS can promote the cytotoxicity of the *trans*-platinum complex by targeting *SUB1*

Characterization of Different Human Body Fluids

Jun 2019 – Jan 2021

- INSTITUTION
Key Laboratory of Analytical Chemistry for Living Biosystems, Institute of Chemistry, Chinese Academy of Sciences
- SUPERVISOR
Wang Fuyi
- SUMMARY
Collecting sample of saliva, menstrual blood, peripheral blood, semen, urine and sweat from volunteers and using UPLC-MS to characterize these body fluids. Expected goal is to reveal the specific indicator of these body fluids for the purpose of forensic use.
- RESULT
Primary data had been collected and analyzed. Several candidates were assessed and then this project was passed to another student due to time limit.

The Assessment of the Quality of Drinking Water on Different Sources in UCAS

Sep 2018 – Dec 2018

- INSTITUTION
Key Laboratory of Analytical Chemistry for Living Biosystems, Institute of Chemistry, Chinese Academy of Sciences
- SUPERVISOR
Wang Fuyi, Zheng Qun
- SUMMARY
Collecting sample of drinking water from different sources and then using different approaches to assess the quality (including concentration of metallic ions, total organic carbon (TOC), total bacterial population and total coliform group). My part was to use ICP-MS to detect the concentration of different metallic ions.
- RESULT
All sources of water in the campus are safe to drink overall. Nevertheless, it is not recommended to drink the barreled water if it is opened for more. The quality of the cold drinkable water is the best.

Introduction to Scientific Research – First Researching Experience

August 4th 2018 – August 22nd 2018

- INSTITUTION
Stem Cells and Immunology Laboratory, Institute of Zoology, Chinese Academy of Sciences
- SUPERVISOR
Zhao Tongbiao
- SUMMARY
Basic experiments and methodology of scientific research.
- RESULT
The skills of how to design, validate and conduct scientific projects and how to do literature review were trained. Ethnic of *in vivo* experiments as well as basic methodology of *in vivo* experiments were practiced.

PUBLICATIONS

Yinzhu Hou, Tieliang Gan *et al.* G-quadruplex inducer/stabilizer pyridostatin targets *SUB1* to promote cytotoxicity of a transplatinum complex. *Nucleic Acids Research* **50**, 3070-3082, (2022)

HONORS AND REWARDS

Excellent Newcomers of Students' Union	March 22 nd , 2018
University-level Excellent League Member	June, 2019
Academic Scholarship	Nov, 2019

SKILLS AND CERTIFICATES

GRE 324 (V155, Q169)	TEST DATE: Jun 13 th , 2020
DELF B2 (French)	TEST DATE: Nov 20 th , 2021
TOEFL: 104 (R28, L26, S25, W25)	TEST DATE: Jan 18 th , 2023

COMPUTATIONAL SKILLS

Python Programming Language, Linux Server Operation and Maintenance, Machine Learning, Algorithms, Origin, PyMol, CorelDRAW

EXPERIMENTAL SKILLS

ÄKTA Instrument, Analytical Ultra-Centrifuge (AUC), Isothermal Titration Calorimetry (ITC), Size Exclusion Chromatography with Multi-angle Light Scattering (SEC-MALS), Fast Protein Liquid Chromotography (FPLC), Immunofluorescence Co-localization, Crystal Screening, etc.