

Research Internship Information

Name: Short-term Medical Research Internship for Undergraduates

Chinese Host University and Department: Shandong University - Cheeloo College of Medicine

Eligibility Requirements: non-Chinese, full-time undergraduate students, English proficiency, have completed basic study in Biology

Research Internship Description: Shandong University offers a research program opportunity for international students in the summer. SDU will provide students research opportunities in a variety of areas, such as, immunology, genetics, molecular biology, physiology, medical microbiology, cell biology, neurobiology, tumor research, metabolic diseases, pharmacology, new methodology for imaging & medical inspection. The research opportunities will vary from year to year. In early January SDU will provide students with the list of research projects available for the summer of that year. The program will last for 2 to 3 months, starting from early July and terminating before the beginning of the next semester in early September. International students will do the experiments under the instruction of a SDU lab supervisor. The lab instructor will ensure that students are briefed on health and safety procedures in the laboratory and will monitor that the students are conforming to these procedures. In each laboratory, students will have the opportunity to learn the techniques and data analysis required for the specific research project, participate in lab discussion and Journal Club, and take part in scientific research presentations. In addition, students are required to attend one academic lecture every week in order to successfully gain credits recognized by their home university.

✘Students are eligible to select“China Studies” courses during the internship period.“China Studies” is a comprehensive and interdisciplinary study area which combines sinology with contemporary China studies to form a new disciplinary. The courses are dedicated to educate those who aspire to become the professionals with broad knowledge and deep understanding of China.

Research Internship Objectives: The purpose is to provide students with actual experience in conducting basic research at, and becoming familiar with, medical research laboratories. The program requires students to be self-motivated. Before actually starting the exercises, student should make their own plan based on the assignments from the affiliated laboratory and discussion with the laboratory head. We have intentionally allotted such a long period for

this program, to ensure a more substantial and cohesive training. Further, in the hope of enriching training, we ask each student to make a presentation in the final week of training.

Student Roles and Responsibilities: Students will do the experiments under the instruction of a SDU lab supervisor. The lab instructor will ensure that students are briefed on health and safety procedures in the laboratory and will monitor that the students are conforming to these procedures. In each laboratory, students will have the opportunity to learn the techniques and data analysis required for the specific research project, participate in lab discussion and Journal Club, and take part in scientific research presentations.

Hours per week: around 40 hours per week

Grading: depending on the participation of the students in classes or labs and the performance of the final presentation

Number of Internship Positions: no more than 10

Research Internship Location: Baotuquan Campus, Shandong University

Research Internship Dates: minimum three months in all year round

Supervisor(s) Name(s) and Contact Information:

1. NEUROSCIENCE

Shuwei LIU, Professor

Research Areas: Functional neuroimaging; Mapping brain structure and function; The development of fetal brain

Email: lshw@sdu.edu.cn

Zhenzhong LI, Professor

Research Areas: Interactions of neuron and target cells; The pathogenesis of neuropathy.

Email: zli@sdu.edu.cn

Zhen LIU, Associate Professor Research

Areas: The pathogenesis of neuropathy

Email: zhen@sdu.edu.cn

2. METABOLIC RELATED DISEASES

Xiao YU, Professor

Research Areas: Cell-to-cell communication in pancreatic islets; Effects of gastrointestinal hormones in pancreatic islets and the underlying mechanism; Protein tyrosine phosphatases involved in diabetes

Email: yuxiao@sdu.edu.cn

Jinpeng SUN, Professor

Research Areas: G protein coupled receptor in human diseases; Protein tyrosine phosphatases, functional studies in Diabetes and Cancer; Development and application new chemical biology tools for medical researches

Email: sunjinpeng@sdu.edu.cn

Chuanyong LIU, Professor

Research Areas: Mechanism of hormone and neural control of the gastrointestinal motility and sensation

Email: liucy@sdu.edu.cn

3. ONCOLOGY

Bo HAN, Professor

Research Areas: Understanding of the molecular mechanisms involved in the pathology of prostate and breast cancers; Development of novel molecular biomarkers for early detection and prognostic. classification of prostate cancer

Email: boh@sdu.edu.cn

Guangwei Wei, Professor

Research Areas: Mechanical analysis and targeted interruption of tumor genesis and metastasis

Email: gwwei@yahoo.com

Minyong Li, Professor

Research Areas: chemical biology and developing novel bioluminescent probes or imaging agents for early cancer detection.

Email: boh@sdu.edu.cn

4. GENETIC & EPIGENETICS

Yaoqin GONG, Professor

Research Areas: Identification and characterization of the genes responsible for single gene disorders

Email: yxg8@sdu.edu.cn

Qiji LIU, Professor

Research Areas: Genetics studies on monogenic diseases; Identifying the susceptibility genes for autoimmune diseases

Email: liuqiji@sdu.edu.cn

Hao FANG, Professor

Research Areas: Epigenetic mechanism of histone deacetylase inhibition; Discovery of novel anticancer agents with rational drug design strategy.

Email: haofangcn@sdu.edu.cn

Hao DOU, Associate Professor

Research Areas: Structural and functional studies on proteins in genetic diseases; Molecular mechanism on viral protein HBx in liver diseases.

Email: douhao@sdu.edu.cn

Yongxin ZOU, Associate Professor

Research Areas: Epigenetic mechanisms in tumorigenesis/Discovery of natural small molecule anticancer drugs

Email: zouyongxin@sdu.edu.cn

5. INFECTION & IMMUNITY

Lining ZHANG, Professor, Director

Research Areas: T cells and related immune molecules play an important role in homeostasis of immunity and their dysfunction is involved in development of multiple diseases. Research interests of my team is to address the functions of new T cell subsets, such as Th17 and Treg, and new immune molecules, IL-37, PDCD4 and TIPE family, and their role in diseases (especially atherosclerosis and Cancer) from clinical specimen to experiment in vitro and animal models

Email: zhanglining@sdu.edu.cn

Chunhong MA, Professor

Research Areas: Immune regulation and liver diseases; Gene regulation and microenvironment in hepatocellular carcinoma

Email: machunhong@sdu.edu.cn

Chengjiang GAO, Professor

Research Areas: Regulation of innate antiviral signaling

Email: cgao@sdu.edu.cn

Jihui JIA, Professor

Research Areas: Pathogenesis and intervention of gastric cancer; umor infection and inflammation mechanisms

Email: jjajihui@sdu.edu.cn

Lifen GAO, Professor

Research Areas: Identification of novel immune molecules regulating macrophages and their application in the intervention of immune related diseases

Email: glfflg@sdu.edu.cn

Administrative Contact Information: Ms. Ma Mengran, mamengran@sdu.edu.cn

Research Internship Code: SDU-CLIC007

Website address: <http://www.qlyxb.sdu.edu.cn/>

Host university application: yes, please contact mamengran@sdu.edu.cn with passport valid page, academic transcripts, three choices of potential supervisors, personal statement

Research Internship Credit: N/A, the Letter of Permission is required.

Dormitory accommodation available: yes, on-campus International Student Dormitory is guaranteed.

Additional fees: (field trips, etc.) Aiming to maximize the students' learning outcomes and deepen their understanding of Chinese society, besides the professional teaching and research activities, the field trips are included in the program to visit some of the famous tourist attractions of Jinan city and Shandong Province, the homeland of Confucius and other great philosophers of Chinese history. Hiking, visit to natural springs, ancient temples is possible.