

## 【CAMPUS Asia Report】 Gu Yanjun

Your major in home university : Pharmaceutics

The period of the stay : 2019.10-2020.3

The laboratory you were accepted : Bio-system Pharmacology (Kanai Lab)

### 1. Why did you participate in the Campus Asia Program?

I want to learn more knowledge about Pharmacology and how to be a good researcher. I am also interested in Japanese culture, so I want to have a precious experience of living in Japan and learn deeper expertise.

For one hand, I took Pharmacology when I was a first-year student, it's an important part of pharmaceutical sciences (my major), so in this point I want to learn more Pharmacology knowledge, which may bring more helps to my future learning. In the other hand, I was interested in Anti-cancer drugs when I had Cell Biology and Biochemistry class.

大阪大学大学院医学系研究科 生体システム薬理学 (金井研究室)

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ホーム >

研究内容 >

メンバー >

研究業績 >

アクセス >

Gallery >

LINKS

大阪大学  
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ABOUT US

私たちの研究室では、物質の選択的輸送を担う膜タンパク質“トランスポーター”を研究対象としています。トランスポーターの構造と機能の理解、分子間相互作用や機能制御機構の解明などを通じ、多様な細胞・組織特異的機能の発現や病態形成におけるトランスポーターの重要性、創薬標的としての意義を広く明らかにしたいと考えています。従来の創薬学的・薬理学的な輸送活性解析に加えて、膜タンパク質に特化したプロテオミクス解析、リン酸化プロテオミクス解析、メタボロミクス解析、遺伝子改変動物の表現型解析などの広範な実験手技を駆使し、分子・細胞レベルから組織・個体レベルまでの生物学的取組を網羅した研究を展開しています。

大学院生を募集しています！

After I saw the home page of Kanai's lab, I thought it's may be a good start to learn about cancer cell and more cellular mechanism, which I lack in my current college learning. There's a lot to learn. And after contacting to Professor Kanai, I thought he will be a good mentor for me.

Following contents are what I want to learn as a student of Campus Asia program.  
1-2 months: better communication skills in English and Japanese, life skills,

experimental operations and principles, necessary knowledges of my research direction.  
2-6 months: How to carry out the experiment smoothly and how to solve the possible problems, how to find and read literatures more efficiently, how to concise and write a scientific paper.

## 2. What did you study in this program?

My professor helped me make a good plan.

1-4 weeks: Basic technical training (including basic cell culture of cancer cell lines, Western blotting, RI experiments, and animal experiments etc.)

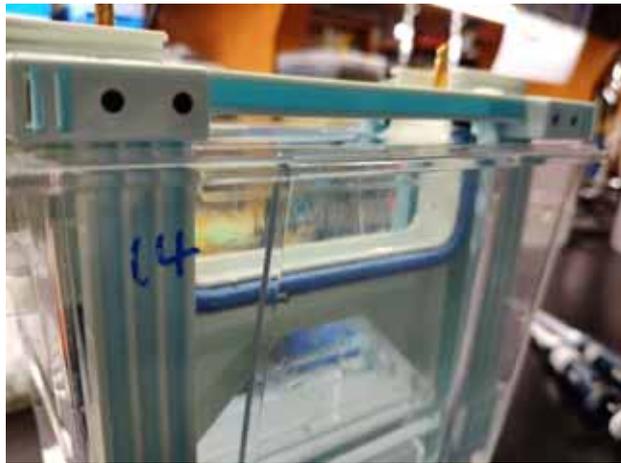


5-8 weeks: Advanced technical training (including gene transfection, gene knock-down, cell growth inhibition, and cell cycle measurements etc.)

9-12 weeks: Select TCM components with anti-tumor activity and examine their activity to induce apoptosis in cancer cells. Aim to determine whether the compounds have potential or possible anti-cancer ability.

17-20 weeks: Aim to determine the mechanisms of the anti-tumor-action of the compounds by means of phosphoproteomics.

21-24 weeks: To confirm the involvement of the proposed cellular signaling pathway by means of gene knock-down and Western blot etc.

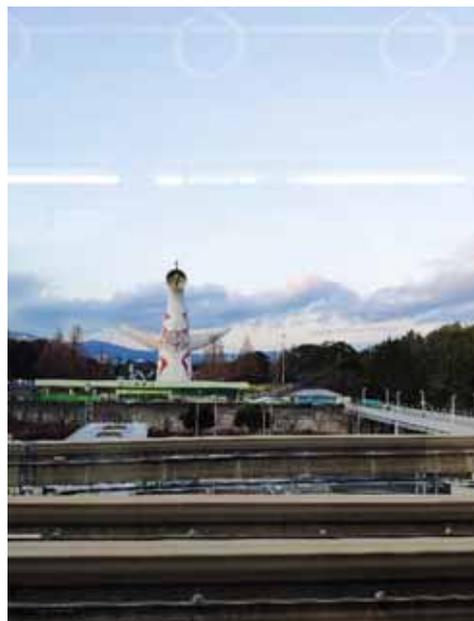


### 3. How was the stay in the country you visited?

During the six months I spent in Japan, I felt that people were very understanding, teachers were responsible, and people were friendly wherever I went.

In addition to my studies, I also traveled to many surrounding places, such as Nara, Kobe, Kyoto, these places are beautiful scenery, I am very happy.

The only thing I'm not happy about is that some of the communications are slow and didn't communicate well. The school reserved an extra month's dormitory for me, but then I contacted the dorm and the school and returned the extra month (April). I quit my dorm at the end of March and went back to China. I had been back for almost a



month by April, but the dorm manager sent me an email at the end of April asking me to pay back the dorm fees for April. In the end, the problem was solved through multi-party coordination. I hope such a thing will not happen again in the future.



#### 4. Others or some messages for future participants

Doing scientific research gives me a great sense of accomplishment and enables me to learn all kinds of things such as my communication skills. It also increases my knowledge and ability to deal with events. I have great admiration for my professors and predecessors, and I really thank for their help.

But doing scientific research is also very hard, like a practice, I decided to do a chemistry teacher, hope to cultivate students 'interest and spirit of scientific research, and help students who has scientific dreams to chase their research dream.