

# LEADING GRADUATE SCHOOL

From Chiba University Toward The World

# NEWS LETTER

Be  
Creative Research Leaders  
in the fields of Immune System Regulation and Innovative Therapeutics



# WELCOME



## 8th New Members

**Name :** Maria Alejandra Kanashiro

**Affiliation:** Department of Innovative Regenerative Medicine

**Theme:** Ex-vivo expansion of hematopoietic stem cells

**Message:** My search for knowledge brought me to Japan, but being part of the LGS program gave me so much more than I could have asked. To honor this privilege, I will dedicate myself to the worthy cause and provide my skills and experiences to the community. I hope I would be able to help others just as this program is helping me.



**Name:** Keita Ogawa

**Affiliation:** Department of Gastroenterology

**Theme:** Tumor microenvironment of hepatocellular carcinoma

**Message:** LGS program is the best place that satisfies my curiosity. In this program, I want to acquire a lot of new knowledge through communication with experts in various fields. And I will make the best use of my clinical experience as a physician.

I'm looking forward to upcoming exciting encounters and challenges through the LGS program.

**Name :** Hiroshi Kikuchi

**Affiliation:** Department of Neurological Surgery

**Theme:** Functional anatomy of brain and spinal cord

**Message:** As I faced many problems that I could not solve during several years of my clinical experiences, my expectations towards basic medicine have grown up. I hope that I can clarify the questions and hypotheses I have had.

I also hope that I can make new discoveries by interacting with LGS members from various backgrounds.



# Therapeutics Practice

## Domestic Training in Kawasaki

JUNICHI ISHIKAWA  
7th Year LGS Member

On February 17, 2020, my colleagues and I had the first domestic training at the Innovation Center of NanoMedicine (iCONM). In 2019, Dr. Kataoka Kazunori, the Director-General of iCONM, came to Chiba University to lecture on nanomedicine. The lecture was very impressive and stimulated us to learn more about nanomedicine; we, therefore, organized this domestic training program.

iCONM is located in the area called King Skyfront in Kawasaki City. King Skyfront was initially the center of the industrial area but has transformed into an advanced biotech area. iCONM is the pioneer of the King Skyfront area and one of the world leaders in developing medical nanomachines. Therefore, many researchers from all over the world are currently visiting them.

This time we were able to receive training in such a famous lab.

The training consisted of:

1. The history of the King Skyfront
2. The overview of the iCONM facilities.
3. A tour of surrounding facilities.
4. A discussion over the main research at iCONM.
5. A lab tour.

One of the most memorable events was a discussion over the research.

We learned cutting-edge research on nanomachines directly from four principal investigators and had extensive conversations about their research's future applications. Nanomachines are micellar compounds composed of a hydrophilic outer shell and a hydrophobic nucleus. By adjusting the hydrophilic outer surface, the nanomachine can reach a targeted location such as a tumor tissue or brain. The drug component in the core of Nanomachines can then be delivered in a very selective manner. Further research will enable us to distribute anything we want to transport to anywhere. It is truly a dream technology.

Although Japan's science and technology has recently been criticized for its stagnation, the training at iCONM has assured us that world-leading research is being conducted in Japan right now.

As the technology at iCONM is very excellent, I would be delighted if iCONM and Chiba University could conduct joint research in the future. I am very grateful to Dr. Kataoka and the staff of iCONM for their willingness to allow us to participate in this training program. I would also like to thank the LGS administration for their diligent cooperation in arranging the domestic training program.

Finally, I strongly recommend that LGS students continue to conduct the domestic training program at iCONM.



# Therapeutics Practice Overseas Training

## Online Lectures

### Six Companies and Two Institutes

#### Industry and Academics

I had web meetings several times with six companies and two research institutes from September 2020 to February 2021 as overseas training. As all of them were internationally active organizations, I learned about various aspects of global activities. They gave me lectures about their histories, works, and research. Having no experience in starting a company, I was excited to know how they underwent the processes and expand their businesses. Besides, I got some ideas for my research. Their business perspective gave me an excellent opportunity to consider my research from a different point of view. If my research is applied to business, I can see how my study contributes to society. The idea to connect research and industry sounds inspiring and exciting to me.

Mr. Uenaka from E.J.Power & Associates Inc. gave me lectures on the international business development of medical devices. I learned about international trading and overseas operations. I also participated in a meeting with an overseas company to recognize the presentation skills necessary for international transactions.

I want to thank all the people who have provided me with overseas training. Thanks to their willingness to accept my request for this training, I could have a significant experience. I want to apply what I have learned to the future.

Yoko Ota  
5<sup>th</sup> Year LGS Member



Mr. Uenaka  
Representative Director  
E.J.Power & Associates Inc



Ms. Ota

# EVENTS

## LGS Opinion Exchange Meeting

Reciprocating  
the spirit of always  
aim higher



The COVID-19 pandemics have brought changes to the world, and the Leading Graduate School (LGS) at Chiba University is no exception in this case. For the first time since its founding, the LGS guidance and opinion exchange meeting was held at the beginning of October 2020. Despite the difference in schedule and format of the meeting, the program's spirit in nurturing future leaders in the field of medical research remains as high as it can be.

In the opening remarks, Professor Tetsuichiro Saito – the LGS program coordinator, welcomed the new LGS members and wished them to succeed within the program. The new members are Maria Alejandra Kanashiro, Keita Ogawa, and Hiroshi Kikuchi. I believe they will spark their passion for research at the Department of Regenerative Medicine, Gastroenterology, and Neurological Surgery for the next four years. The new members also introduced themselves and shared their enthusiasm for joining the LGS.

The first presentation of the guidance session was the LGS program introduction. The 6th years LGS member, Kazuma Iida explained program outline and his experiences in the program. He also presented the LGS program features, including rotation opportunities, overseas training, and domestic internships in pharmaceutical and biotech companies. Later during the guidance, Professor Shinichiro Motohashi explained the LGS rotation.

Every LGS member has to go through laboratory rotation to grasp the latest research development in various medical research fields. This rotation is one of the hallmarks of the LGS program in nurturing future research leaders.

Another unique feature of the LGS is the Winter Camp, in which the LGS students present ideas and plans about future start-up enterprises. During this guidance session, 6th year LGS member Alimu Yikelamu presented the LGS Winter Camp to the new members. He was on the winning team in the Winter Camp 2019, which proposed implementing a Smart Doctor Platform during the Tokyo 2020 Olympic Games.

The last presentation of this meeting was delivered by Hiroki Kano, the 7th year member of LGS. He presented his eye-opening overseas training experiences at pharmaceutical research companies in San Diego, California, USA. He met and discussed with researchers at the forefront of the global race to bring therapeutic and diagnostic inventions into real life.

In 2020, the Covid-19 pandemic indeed brought some adjustment to the LGS guidance and student meeting session. It is also evident that the LGS program remains vibrant and solid to achieve its vision: nurturing creative research leaders.

Maulana A. Empitu  
6th Year LGS Member

## EVENTS

### LGS Winter Camp 2021



Exactly one year after the last time, the 7th Winter Camp was held at Chiba University Inohana Campus on February 1st, 2021. The event's objective was to design a business plan in line with a given topic and present it to the judges. This year's topic was "medical problems and solutions in with/post-COVID-19 era". The 7th and 8th-year LGS students were divided into two groups, and each team worked hard on their projects for the last few months.

From the beginning, this year's organization and logistics were challenging because of the COVID-19 pandemic. The first challenge was less contact with others. Since most classes were held online due to the emergency declaration, first-year students had no opportunities to know and interact with each other; not to mention with senior ones. When the new members finally met the others, several months had already passed since the beginning of the school year. Therefore, this event was the first time the new and current members interacted.

The second was the flexibility to make all possible measures and changes. We had to work as a unit while maintaining social distance. To minimize close interactions as much as possible, the organizers decided to reduce the event's duration from an entire day to just two hours. Sadly, this also resulted in scaling down the number of participants.

Therefore, special guests, who always provided exciting insights, were not able to attend this year. Additionally, sanitary measures were also taking place, such as hand-disinfectants, personal microphones, regular ventilation, and thorough cleaning of the space.

The final was the limited time. Since there was no time to revise our business plan, we had just one opportunity to show our service's strength, usefulness, and practicality. We even prepared some answers for the possible questions.

After many long hours invested in corrections and practices, finally we were ready for the event.

The Winter Camp started with a warm message from Dr. Motohashi. Next, our group, HO-Net, presented our business plan of a search engine that locates the hospital, which fits best to the patient's needs in real-time. The patient would upload his symptoms into the software, and the algorithm would inform him which hospital to get treatment. On the other hand, the Hubmed group proposed a medical device delivery system. A motility-restricted patient would call a doctor, who would then have Hubmed deliver a medical device (such as a pulse oximeter) to the patient's home for further examination.

Following each presentation, the judges asked each group about the business models and

# EVENTS

## LGS Winter Camp 2021



(Continued)

made insightful suggestions. After careful deliberation, the Hubmed group was awarded as this year's winner. The event reached its conclusion with a group photo.

Business planning would be a useful skill to develop in the future. As future leaders, we need to think creatively and consider how we can turn our creations into profit. All constructive criticisms and inquiries from the judges made us reflect on our project's weaknesses, which would undoubtedly improve next year's winter camp.

Thanks to the occasion, I had the opportunity to work with other professionals with different views, backgrounds, and knowledge. Every member brought an enlightening perspective. Physicians were well-aware of the burden the virus has carried. Foreigners delineated the inconveniences when looking for a hospital in Japan and described medical systems in their respective countries. Seniors narrated their previous camp experiences and provided the guidelines to plan the business model. Even though English was not a mother tongue of any, I did not feel it was a barrier to express our opinions.

Although it was a pity not to have an after-party, I hope we can have other opportunities to meet and work with them again. In the meantime, we will stay safe.



Maria Alejandra Kanashiro  
8<sup>th</sup> Year LGS Member

# STUDENT EXPERIENCE

## Therapeutics Seminar of Leading Program

### Therapeutics Seminar of Leading Program

21 Laboratory Units

Basic Science to Clinical Application

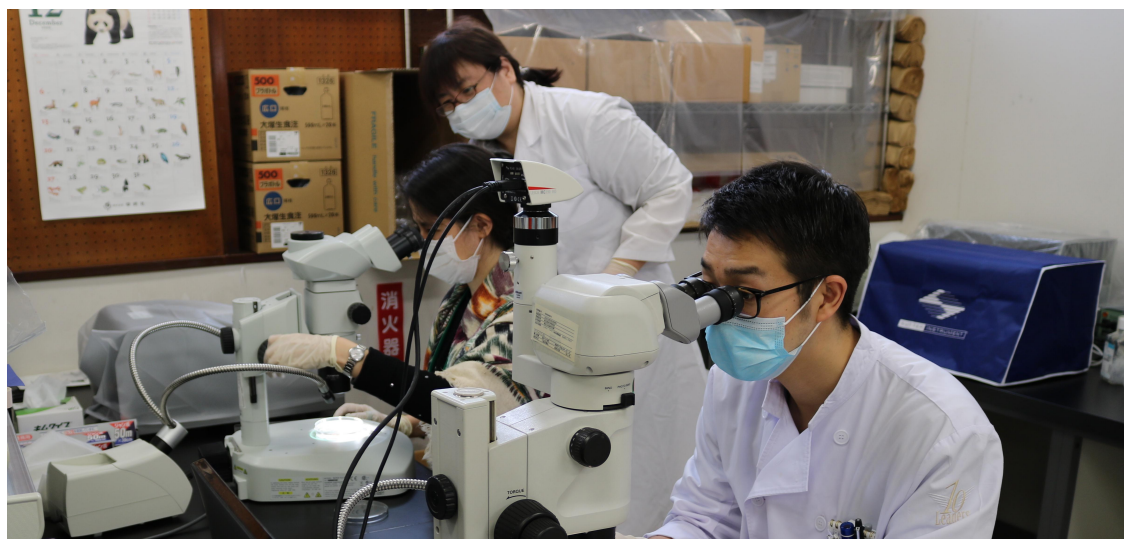
The therapeutics seminar of leading program was held throughout the year. It consisted of twenty-one units conducted by researchers and health care workers who were experts in the respective fields.

We acquired general analytical techniques such as flow cytometer, immunohistochemistry, and chromatin immunoprecipitation. Furthermore, we learned the latest research topics regarding infectious diseases, drug development, and drug disposition. In particular, we received lectures on the latest clinical strategy to treat adult tumors and rare diseases and prevent allergy.

At the end of the course, we each devised a clinical research plan to conquer a target disease. Clinical research needs a logical and realizable evidence-based plan. Keeping that in mind, we tried to make clinical protocols to resolve the problems and limitations of the current therapies. Since we had never undertaken real clinical research, we discussed with experts about our plans and received pieces of advice from them. That was such a valuable opportunity for us.

Based on our experiences in the therapeutics seminar of leading program, we have been researching with broader perspectives and an understanding of clinical demands.

Ayana Ishii  
7<sup>th</sup> Year LGS Member





# STUDENT EXPERIENCE

## Advanced General Education



The "Advanced General Education" is a program designed for Leading Graduate School students and Innovative Medicine CHIBA Doctoral WISE Program students to obtain a new perspective and broaden horizons.

This program's feature is that students organize the whole lectures, including selecting and negotiating with candidate lecturers. With the help and advice from Prof. Tetsuichiro Saito, we invited 15 foremost specialists with a wide variety of topics: Historical science, History of artificial limbs, Genetics, Computer science, Political history, Nuclear science, Robotics, Communication information system, Molecular science, Food biochemistry, Automotive engineering, International politics, Innovation in Endoscopy, and so on. All of the lectures were innovative and stimulating for us.

Although most of the lectures had to be held online due to the pandemic of COVID-19, there was a good point in this situation. That is, the widespread use of online meeting enabled us to take lectures provided from overseas. If it were pre-COVID era, we would have given up inviting lecturers who were outside of Japan.

Furthermore, these special lecturers gave us important messages about how they have been successful and how to accomplish innovative works. I felt that the common denominator among these innovators is that they have always been unsatisfied with the current situation and have repeatedly gone through trial and error with unconventional thinking. They thus succeeded to deliver better products to people.

Through these lectures, we could acquire a wide range of knowledge and get the ability to seek solutions to various problems we may face in the future from multiple directions.

Terunao Iwanaga  
7<sup>th</sup> Year LGS Member



# MESSAGE

## From Graduating Members

**Name:** Masashi Yamamoto

**Affiliation:** Department of Endocrinology, Hematology, and Gerontology

**Message:** Marcel Proust said, “The real voyage of discovery consists not in seeking landscapes, but in having new eyes.” The LGS program became a useful guide of my voyage because it helped me acquire many skills necessary for researchers and gain new points of view. This program provided a lot of opportunities to interact with people from various fields. I will make use of what I have learned here and strive to become a global leader. Lastly, I would like to thank all the instructors, staff, and colleagues for their continuous support.



**Name:** Kota Kokubo

**Affiliation:** Department of Immunology

**Message:** Through the valuable lectures, the LGS program gave me various insights that I could not obtain only from my lab works. In the program, I could have chances to discuss with people who have multiple backgrounds, such as scientists in the various research fields of academia, drug industries, and entrepreneurs of Bio-Venture. All experiences that I gained during my time as an LGS member will undoubtedly become my life's assets. I greatly appreciate all the support and cooperation from LGS.

**Name:** Yuriko Yamazaki

**Affiliation:** Department of Dermatology

**Message:** The life as a graduate student was way more challenging than I expected. As I didn't have any basic research knowledge, I struggled with everything: reading papers, setting goals, planning experiments, and giving presentations. Nevertheless, I enjoyed learning every single step thanks to many people who supported me through a tough time. Among them, I especially thank the LGS faculty and staff for giving opportunities to meet various excellent researchers and students. These precious experiences motivated me and made me realize several carrier paths possible after the Ph.D. course. Indeed, graduating is just a step—I am looking forward to the next goal.



## WE WISH

### “The Best for All Of You”

**Name:** Yoko Ota

**Affiliation:** Department of Molecular Biology and Oncology

**Message:** The LGS program gave me a lot of opportunities. I attended various lectures and practical trainings to learn a wide range of know-hows about research and business as well as the knowledge and skills necessary for my research during my graduate school life. Thanks to this program, I have gained a global perspective and expanded my possibilities for my life. I will make use of these experiences in my career. I want to thank members and staff for supporting me.



**Name:** Tadamichi Kasuya

**Affiliation:** Department of Allergy and Clinical Immunology

**Message:** I had a fruitful time in the LGS program. This program gave me ample opportunities to learn cutting-edge knowledge in various fields and improve my English skills. I want to make the most of what I have learned in the past four years after graduation. Besides, the best asset I gained during my graduate school years was my friends. I am proud of working with them and grateful for their cooperation. I also appreciate the generous support from all the LGS staff and teachers.

**Name:** Takuya Minamizuka

**Affiliation:** Department of Endocrinology, Hematology and Gerontology

**Message:** The LGS program allowed me to participate in international conferences held in Japan and also Geneva training programs. Enthusiastic seniors and colleagues inspired me to improve my research expertise and language skills and enhance my research motivation. I want to continue to face science on a global scale with conviction after graduation. I am very grateful to my colleagues and the staff of the LGS program.





**CHIBA  
UNIVERSITY**

CONTACT

Leading Graduate School at Chiba University

TEL.+81-43-226-2817 FAX.+81-43-226-2857

E-mail:lgs-jimu@chiba-u.jp

URL:<https://www.m.chiba-u.jp/dept/lgs/>

1-8-1 Inohana Chuo-ku Chiba-city, Chiba 260-8675

JAPAN