



The 10th GCB Summer School for Medical Physics
The 6th GCB Summer School for Molecular Biomedical Science and Diagnosis
Survey Results Report

7 Sep 2023

Global Center for Biomedical Science and Engineering

This year, the 10th GCB Summer School for Medical Physics and the 6th GCB Summer School for Molecular Biomedical Science and Diagnosis (formerly Summer School for Molecular Biomedical Science and Engineering) were conducted from 21 to 25 August 2023 allowing overseas participants to attend face to face for the first time since Covid-19 pandemic. Unlike the online event, the number of participants that can be accommodated onsite is rather limited, making the screening process more competitive and difficult than in the past few years. Of those who passed the highly competitive screening process, this year's summer school welcomed 6 participants in Medical Physics and 12 participants in Molecular Biomedical Science and Diagnosis from 10 countries (namely, Australia, Bangladesh, Canada, India, Indonesia, Philippines, Singapore, Taiwan, Thailand, and USA).

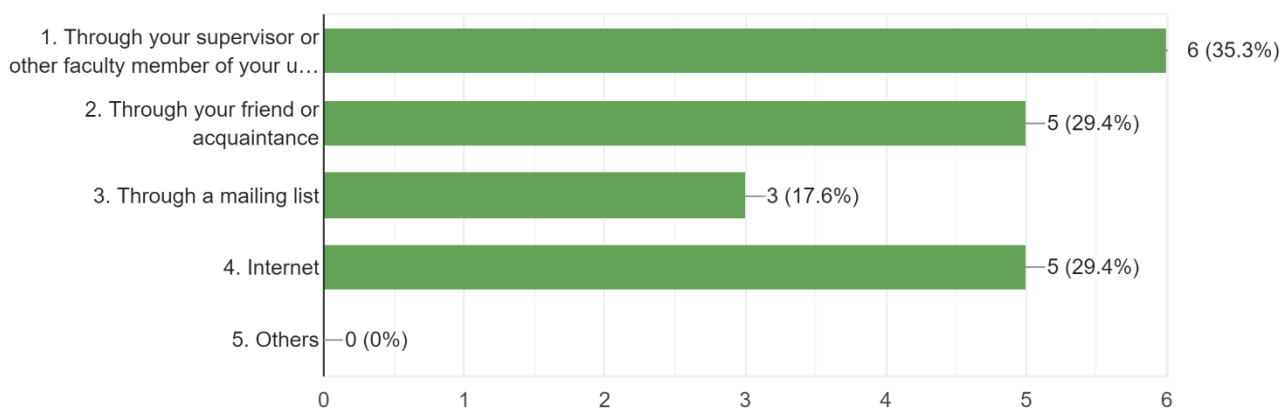
During the five-day intensive programs, lectures on a wide range of topics were given not only by lectures from Hokkaido University, but also by world renowned researchers invited from home and abroad including Stanford University, Bogazici University, National Institutes for Quantum Science and Technology, Kyoto University, and Hitachi, Ltd. Some lecturers who had difficulty coming to the campus gave live lectures remotely, but they were able to communicate interactively with the participants via zoom and the lectures proceeded smoothly.

A survey was conducted during the final chapter of the programs. Overall, positive feedback was received, and many participants were especially pleased that the summer school, which had been held virtually for the past several years, was finally being offered in a face-to-face format. In terms of content, the hands-on trainings and the proton beam therapy facility tour were particularly well received, with many commenting that they were able to have a valuable experience that they rarely get to have. For more details, please see the graphs and comments below. We would like to thank once again all the participants and all those who provided constructive feedback and we will use the feedback received for the next edition of the summer school.

INFORMATION RESOURCE

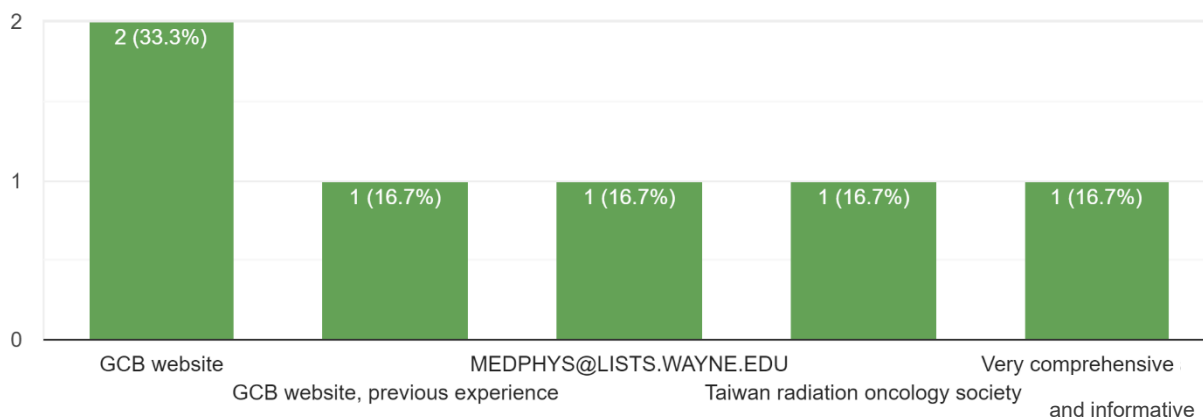
1. How did you know that the GCB Summer School was recruiting participants?

17 件の回答



2. If your answer to the above questions is either 3 to 5, give us some details, such as "4. GCB website."

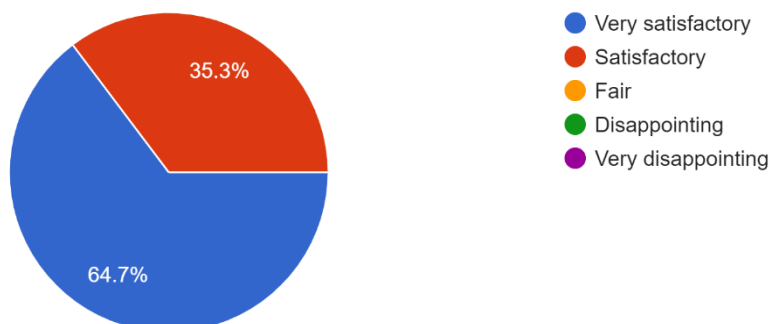
6 件の回答



LECTURES & MATERIALS

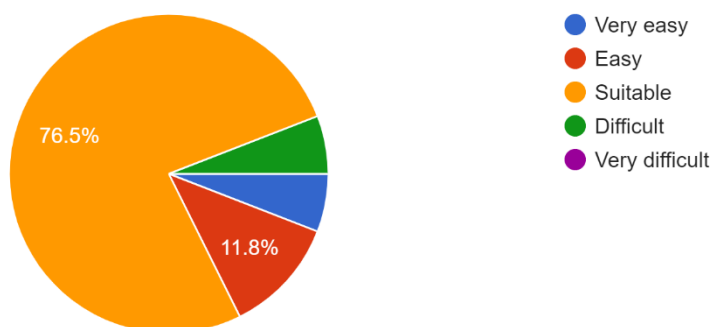
1. How did you feel about the quality of lectures?

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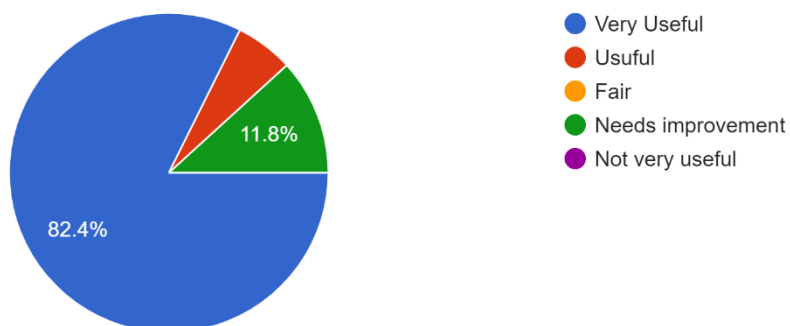
2. How challenging did you find the level of the lectures?

17 件の回答



3. How did you feel about the lecture materials distributed via USB or by printing?

17 件の回答



4. Please tell us about the lecture that was most impressive to you and explain why.

- Fractionation based on dose distribution and classical radiation biology (Prof. Mashahiro Mizuta), It like my first time to think about radiotherapy in filed of Math and Prof. also explain in the easy way.
- RTRT and Proton because it's a new experience for me
- Actually, the Symposium is the most impressive one with frontier knowledge.
- Learn about advance method of Medical Physics field and gain a lots of knowledge. Specially deep learning, Geant 4, AI lecture was very impressive for me.
- the experiment part is most impressive to me, seldom to have hands-on experience after graduation; also, the research topics of HU is awesome.
- Most impressive ones were by Dr. Sair and Dr. Kalbasi. They were new topics for me and I was really intrigued to learn about it.
- Hand on exercise on MRI, nuclear medicine, and biology. The activity gives a good practice for everyone.
- Dr.Rodney ,Dr.Anusha Kalbasi, Dr.Haris Sair
- Resting state MRI. Take the technological parts to explain clear.
- hand-on training, can join real work practically.
- The most impressive lecture to me was on oncolytic virus and engineering viruses that can selectively kill tumors. I find that concept scientifically amazing! I also enjoyed Dr. Tha's lecture on radiomics.
- Chapter 4 was the best for me. The topic was amazing, and the lecturer did a very great job explaining something very complicated.
- Proton therapy Center tour
- Emerging Trends for Radio-Immunotherapy in Solid Tumors. The presenter gave the most comprehensive and informative lecture about how RT + immunotherapy improved control tumor both irradiated and abscopal sites. Furthermore, there were a lot in terms I learned during this session.
- The most impressive lecture to me is the "overview of radiation therapy" because it makes me more clearly to understand the basic of radiation biology and to apply it clinically.
- Boron Neutron Capture Therapy and its measurement device development, I have always had a keen interest in this treatment modality as it is not often mentioned as frequently as its Proton or Photon counterparts. Through Dr Ishikawa's detailed explanation of BNCT, I have developed a better grasp of the challenges and benefits of this treatment method.
- Production of radioisotopes. I seldom learn about it before and felt interested in it during the lesson.

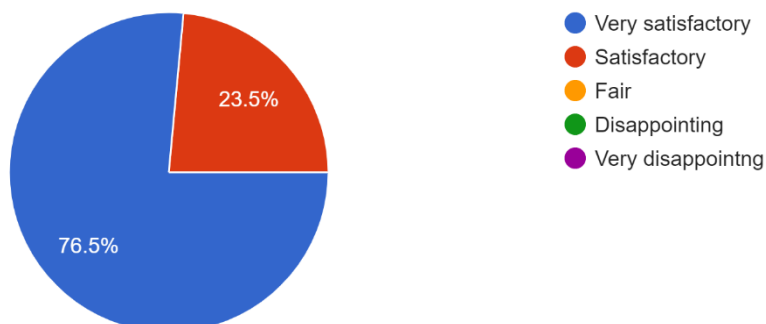
5. Please tell us about the practical training/tour that was most impressive to you and explain why.

- 4DRT (hand-on) because we have the opportunity to see and study with the own Hokkaido software and phantom.
- Proton facility tour, we don't have that in my country.
- Proton tour is still the most impressive one to see the top treatment device.
- Yes. As a student I learn a more about radiotherapy machine and planning. It helps me to better understand.
- I would say the MRI training, the pineapple is cute!!!
- The proton therapy centre visit. It was my first time seeing a proton facility and it blew my mind. Wonderful experience!
- Everything is exceptional. I enjoyed the MRI and biology the most. It is very helpful to my future experiments and career.
- Biology practical. This is first time seeing the radiation results by microscope.
- MRI hand-on. Although we know the strong magnetic, but never validate it. Really see the power of magnetic field.
- Through workflow, we can understand how to do and why.
- The practical training was an amazing experience. The instructors were incredible! I wish the practical training of MRI/PET was supplemented with in-depth lecture of the physics of how MRI and PET scanners actually work. That would be even more useful and maybe how we can develop the next generation of scanners.
- I really enjoyed the wet lab portion and the proton center tour. However, I wished we were able to irradiate the cells during the wet lab and maybe had a lecture on proton therapy.
- Proton therapy Center tour, because we can see synchrotron in person, if we could take some photos to share with our co-workers that will be great.
- Hands-on Practical Training on Radiobiology. The training provided us a comprehensive and practical skills on immune staining. I have learned so much from this course, where we are able to learn how to culture cells, staining in direct method, and also visualize the double-strand break and nucleus between irradiated and non-irradiated cells using confocal microscope. Also, the lecturers are very approachable and patient with us while doing the activity. It was a fun-learning experience!
- The facility tour is the most impressive because we can seldom see how a proton machine work during our daily work.
- Hands-on Practical Training: 4DRT, The SyncTrax system is native to Japan and as such is not exported overseas to my knowledge. As such, Dr Miyamoto's hands on training session has given me a better understanding of the innerworkings of system.
- The facility tour is impressive. I had been to any other proton beam center before. Usually, we had simple lectures and went to see the building. We are not allowed to visit the "real" machine behind the treatment room. And we were unable to see the gantry nor the table moving. It is really a nice trip for me.

SUMMARY

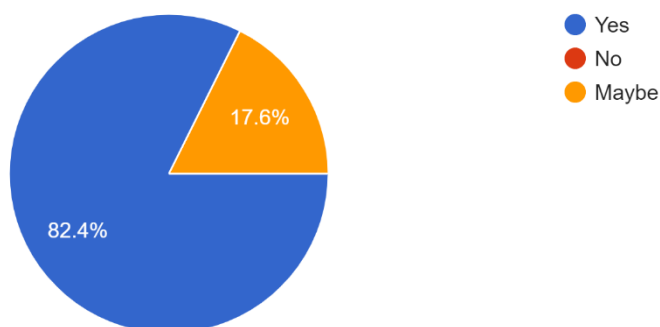
1. How do you rate the summer school overall?

17 件の回答



2. If the GCB summer school were to be held in the winter, would you be interested in participating?

17 件の回答



3. Please write your comment freely below. (Requests, Advice to improve the summer school, Complaints, etc.,)

- I think the committee of the summer school should present this event in many information resource. I think it's very benefit to participants to get knowledge and share experiment with each other.
- There are no complimentary drinks
- Thank you all for organize such a wonderful meeting.
- It was very impressive and advance course for me. I am satisfied.
- thank you a lot for holding this activity. I definitely would suggest my colleague to attend next year. and I visited the AI lab of Prof Kudo, we may have chance to cooperate in the future! the Norie and is very responsible. all professors prepare their lecture with heart, they are enthusiastic about teaching, and about their research.

- I am really grateful for this opportunity. I enjoyed this school very much. It was a wonderful learning experience. I found the lectures were of great quality. I learned a lot. I wish we had an organized excursion too, as part of the school to interact more with everyone. I would love to come back and attend this again.
- I would love to attend the winter school next time here in Sapporo.
- Kindly keep the Travel support as it is. Most participants will get the benefit of Hokkaido University advanced lectures.
- None
- 1. The screen is too small that we can't see very clear from back of classroom
2. Some speakers don't provide teaching materials and it's so pity.
- This was an incredible experience! Thank you so much for inviting me! I made lifelong memories and lifelong connections! I want to share special praise for Norie Yamada and Eba who were with us every step of the way and they made the whole process so smooth for us!
- I think the arrangement of lectures could be better. Some lectures were more advanced than others. The more basic lectures could have been done earlier to give the students some more background knowledge. Lectures in the same topic could've be done on the same day (AI, radiation biology, etc.). That way each day has a specific topic of focus.
- It's a very very great experience for me, I can't wait to see the photos taken for us :)
- Overall, the summer school program is very helpful for a early career researchers and students. It helps us to be update with the research trends and improve the cancer research. This is great learning experience! Congrats to the organizers and lecturers!
- Thanks for the project of the summer school and I learned a lot and had a good time during the week.
- Although it's unfortunate that Sapporo is currently enduring an extremely hot and humid summer, overall, I couldn't have asked for a better experience here in Hokudai.
- ありがとうございます！またね！^^
- It is very good.