

## Summary of researcher's responses to the WRHI questionnaire on the effects of the Covid-19 pandemic

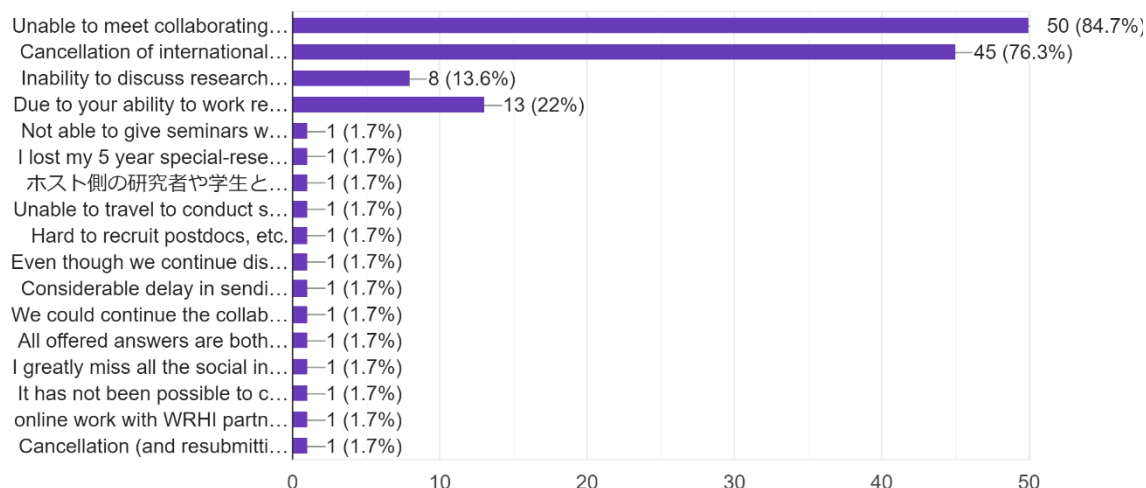
We received positive responses indicating that researchers, including students, were able to continue or improve their international collaborations online, suggesting that a new style of collaboration will emerge from the pandemic.

A range of suggestions for new communications infrastructure were also provided, which we hope to achieve in stages over the coming months. On the other hand, we also heard that it's difficult to establish new collaborative relationships online, and that the degree to which people are able to meet face-to-face will have a great impact on our international presence. From the latter period of the current financial year, we are exploring and implementing new ways to allow international researchers to join us at the WRHI, including by supporting them through quarantine following arrival in Japan. We further realized that in order to expand our international network, we must be able to allow foreign researchers to take up positions at Tokyo Tech before they are physically able to travel to Japan.

As the ongoing pandemic continues to cause unexpected delays in international collaborative research, many researchers indicated that the WRHI program and their employment contracts should be extended. We appreciate all WRHI researchers' efforts in facing the difficulties of the pandemic and for the ideas and advice provided in the survey. Thank you.

Q1. What effects, both direct and indirect, has the ongoing Covid-19 pandemic had on your international collaborative research? You may choose multiple options from the below:

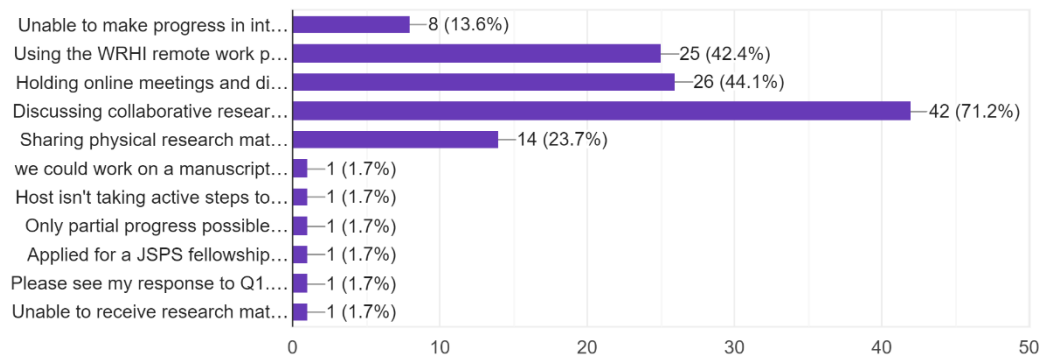
59 件の回答



- Unable to meet collaborating researchers in person due to disruptions in international travel, affecting the progress of collaborative work
- Cancellation of international conferences and other opportunities to discuss work with relevant researchers, preventing you from receiving helpful feedback
- Inability to discuss research with collaborating researchers, even online, due to time zone differences
- Due to your ability to work remotely overseas using online conferencing and other tools under the WRHI program, you were not restricted in your ability to work, and did not have any particular problems

Q2. At the WRHI, we are supporting our researchers in numerous ways, including by allowing researchers to work remotely overseas. How are y... You may choose multiple options from the below:

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- A. Unable to make progress in international collaborative research
- B. Using the WRHI remote work policy to conduct online meetings and discussions related to collaborative research
- C. Holding online meetings and discussions related to collaborative research, but not under the WRHI remote work policy
- D. Discussing collaborative research via email
- E. Sharing physical research materials with researchers overseas via post to allow collaborators to perform experiments, etc.

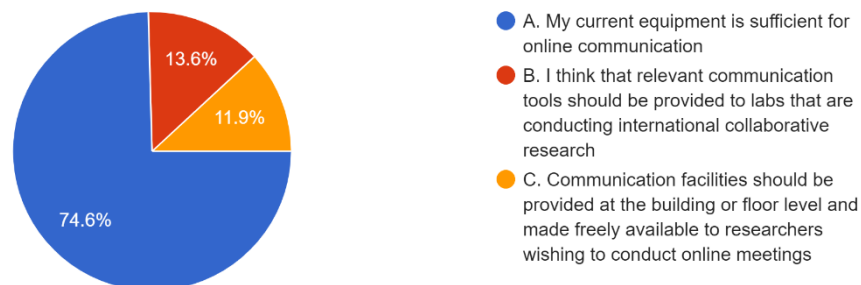
Q3. It is currently unclear when the Covid-19 situation will be resolved. Aside from precautions to prevent the spread of Covid-19, have you made an...or otherwise changed your approach to research?

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Q4. The use of IT as a communication tool has become rapidly established during the pandemic, and it is likely that this will continue after the pandemic and are considering whether to expand these efforts.

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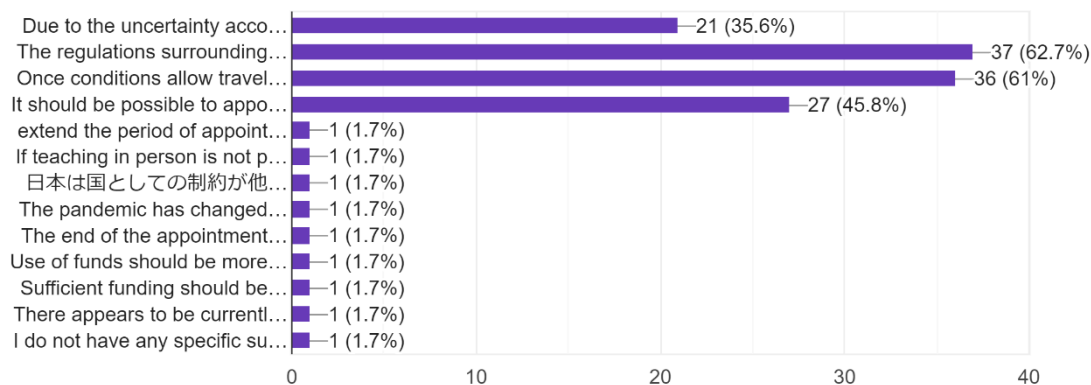
A. My current equipment is sufficient for online communication

B. I think that relevant communication tools should be provided to labs that are conducting international collaborative research

C. Communication facilities should be provided at the building or floor level and made freely available to researchers wishing to conduct online meetings

Q5. In order to most effectively support international collaborative research during the pandemic and beyond, please indicate how you feel the research should be supported. You may choose multiple options from the below:

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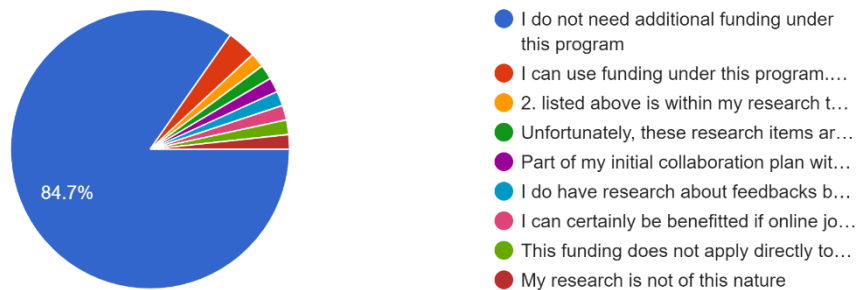
A. Due to the uncertainty accompanying the pandemic, funding should be administered at the end of the funding period, rather than each financial year

B. The regulations surrounding employment of researchers should be made more flexible

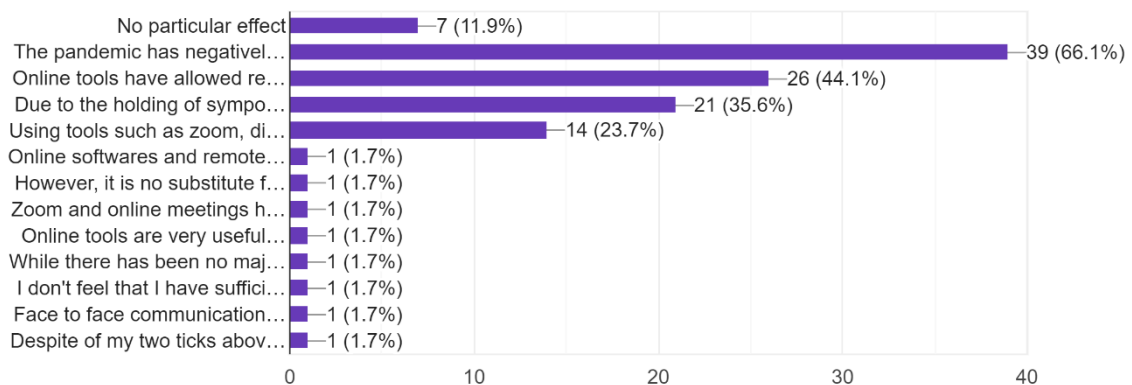
C. Once conditions allow travel to Tokyo Tech, the university should help support international researchers during the mandatory isolation period, not just the host lab

D. It should be possible to appoint international WRHI researchers without requiring them to attend Tokyo Tech in person, instead allowing them to collaborate with the host lab online and apply for external funding

Q6. Lockdowns continue to be commonplace in cities around the world as societies respond to this dangerous pandemic. The WRHI has set aside funding whether such funding might be useful in your work  
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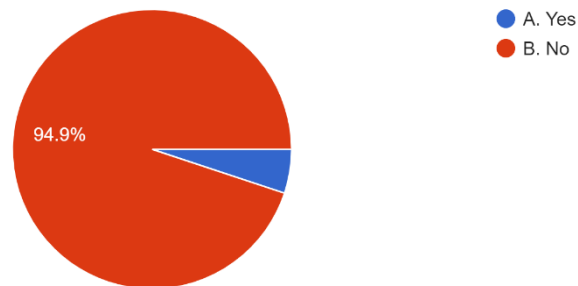
Q7. Participation in international collaborative research is an important opportunity for young researchers and students to gain international ex...? You may choose multiple options from the below:  
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- A. No particular effect
- B. The pandemic has negatively affected the development of researchers in my lab
- C. Online tools have allowed researchers in our lab to communicate freely with collaborating researchers, and we intend to continue this international dialogue
- D. Due to the holding of symposia etc online, it has been easier for students to participate in international conferences and talk sessions
- E. Using tools such as zoom, discussions with international researchers increased, allowing for improved planning and the development of original research ideas

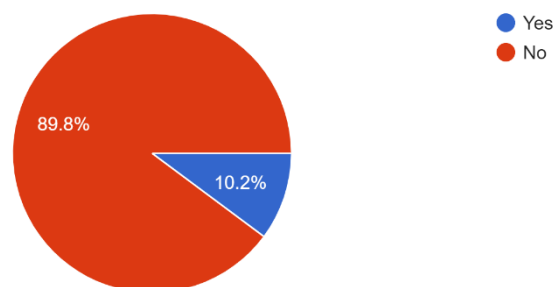
Q8. In undertaking your research during the pandemic, were there any conflicts between the Covid-19 policies implemented at Tokyo Tech and those of your home research institution?

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Q9. Was your research inhibited by any Tokyo Tech Covid-19 policies that restricted your research activities, in spite of similar restrictions not being implemented at your home institution?

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In addition, researchers provided individual responses regarding their circumstances, as below:

Q10. At the WRHI, we will do everything possible to allow our researchers to conduct international research without hinderance. To this end, we are considering the nature of research during this unprecedented time and the long-term implications of Covid-19 on our research environment. Would you provide any additional thoughts, opinions or comments on how you feel we can best develop effective research policies during this challenging period?

- Consider having similar financial support, whether the research is conducted onsite or online.
- Encourage the online communications for researchers.
- I was appointed to teach and interact with students and postdocs whom I do not know. This is almost impossible at a distance since the major contribution I make is inspirational and depends on close interaction with the students. Thus I think my appointment should simply START (restart) when the pandemic is improved enough that foreign professors can come to Tokyo tech.

- I would have liked to meet my Tokodai collaborators outside of Japan for a short collaboration period, in a country that does not suffer from Covid, when Japanese researchers could leave Japan, and when I could leave Japan. Like a mini-conference. It was very hard for me not to personally see my Tokodai collaborators for what will be at least 2.5 Years, maybe more, even if we met regularly on videoconferencing. I realize that what I am proposing would be expensive, but it would really have helped invigorate my collaborative research with Tokodai.

- I think it is more important than ever to participate in the actual teaching of students and to have in-person discussions. Please continue the opportunities for travel.

- WRHI provides the technical and organizational frame for the exchange, it is the lab which is responsible that the interactions work.

- It is challenge without personal contacts

- The main hindrance for my collaboration with my host lab was the time difference combined with the inability to be paid by TiTech while working remotely - which would also imply working outside of working hours in Japan local time - (although from some of the questions in this survey it seems like this could have changed). This combined with my increase workload due to the pandemic at my home institution made it impossible for me to pursue projects with my host at TiTech.

- be flexible, extend the appointment at least for one more year as the last 2 years were almost not possible for any collaboration

- Let's hope the international vaccination programmes proceed speedily, so that we can return to in person international meetings again, as soon as possible!

- I believe the best thing to do is to have a "reset" and planning meeting for WRHI once travelling is allowed again so that a momentum towards intensive is built quickly once the pandemic situation is eased.

- We have a programme of lectures by professors visiting from the UK. Any extra support for short and longer term stays in Japan would be appreciated.

- The progress of the International project has been seriously slowed due to COVID-19. WRHI could consider to extend the timeline of the project to facilitate completion of the project.

- I think for the time being there is little that the WRHI can do to 'solve' the effect of the pandemic on international collaboration. I believe that people have to physically meet and discuss ideas to collaborate most effectively. Therefore, ensuring that WRHI researchers are vaccinated and that the WRHI has clear policies regarding the resumption of international travel when this becomes possible is most important. I think it would be useful if conferencing spaces were established that provided a quiet and private space that could be booked. Also, I think that some international collaborative research projects will have been hindered by the pandemic, and that the WRHI should account for this when assessing researcher output.

- Please lobby the Japanese government to remove 2 weeks quarantine for researchers, at least

reduce to 1 week.

- This questionnaire seems to emphasize international collaboration, but I think that another important point is collaboration and networking with other researchers within Titech.

The opportunities to meet and discuss research with other Titech colleagues have been very limited within this period. It seems to me that more efforts could be directed to promote networking among the Titech community. This is especially true for new researches who have not been able to meet other researchers at Titech.

- Allow WRHI collaboration online

- I appreciate the thoughtfulness and forward looking of Tokyo Tech in taking steps to enhance the international collaborations already in place

- If possible, being more flexible on the duration of the stays and in the appointment period.

The difficulties related to the pandemic situation has slowed down the collaboration, it would be good if the specially appointed professor positions could be prolonged to finish conducting the research project.

- It seems best to support remote collaboration during pandemic peak and reenable physical meetings once it calms down.

- It is hard to say

- I feel that WRHI is doing its best given the circumstances.

- It would be nice to allow (international) travel again for fully vaccinated people

- You may plan to invite and host select international researchers if they are fully vaccinated, once all faculty, staff, and students at Tokyo Tech are fully vaccinated.

- Hopefully next year, I will be able to come to Tokyo Tech again. I am vaccinated and willing to go in quarantine if necessary.

- I think taking a flexible approach that adapts to changes in variants and transmission is best. This means a more dynamic response that makes no assumptions of trends, until there is sufficient information to make more permanent decisions.

- Please be more flexible regarding deadlines for visiting research tenures and completion.

It seems without personal interaction and participation experiments in Japan the research is not progressing well. Therefore, if it would helpful to develop a procedure/way to facilitate travel (vaccination, extra tests etc) as it seems possible with European collaborations.

- Our research progress has been significantly delayed by various restrictions for preventing the spread of Covid-19 infection. I wish to extend my employment duration in Tokyo Tech to complete our research project.