第69回リンダウ・ノーベル賞受賞者会議 参加報告書

所属機関・部局・職名: 沖縄科学技術大学院大学生体分子電子顕微鏡解析ユニット 博士生

氏 名: 所真人

1. ノーベル賞受賞者の講演を聴いて、どのような点が印象的だったか、どのような影響を受けたか、また自身の今後の研究活動にどのように生かしていきたいか。

It struck me that for several Laureates they did not always realize the importance of their work when doing it and finishing it and also were not always sure about if they would continue in science or academia. Michael Kosterlitz mentioned that where he chose to work was largely dictated by a love of mountain climbing and he had some difficulties in finding a good supervisor. When he did find a good supervisor and enjoyed his work, it was mostly mathematical and he did not think it would have such a large impact later on. Donna Strickland after finishing her PhD was moving around with her family and not sure she would be able to get a job in optics or that she would have more than one international conference. Thus I think it is important to not get discouraged by short terms in which you may have a lack of support or idea where you want to continue and can sometimes let other passions or priorities help you along.

Some of the laureates were very engaging speakers and could very well transmit enthusiasm and invite interactions with the audience. One who particularly stood out was Bill Phillips who was always excited and delighted to answer questions. I think it is very important to work on these skills to be able to speak and communicate in a more engaged manner which helps to communicate ideas and make others want to talk to you.

2. ノーベル賞受賞者とのディスカッション、インフォーマルな交流(食事、休憩時間やエクスカーション等での交流)の中で、どのような点が印象的だったか、どのような影響を受けたか、また自身の今後の研究活動にどのように生かしていきたいか。

I was impressed by the Nobel Laureates who were very conscious about the turning points and lucky moments in their lives which put them onto the path towards the discovery that won them the prize. In particular Dan Shechtman was open about being in the right moment and place and having good advice from a colleague as to what would be the next big field. Many Laureates were also involved in work quite different from their Nobel Prize research. It was very refreshing to see that they were still interested in many things and did not have to be only focused on one topic. Steven Chu has especially moved about in different research fields from physics, biology, and materials science as well as climate science and environmental policy. He also mentioned how having the Nobel Prize did not seem to make it easier to publish but in some ways more difficult. Carl Wieman is another example of a Laureate who started to pursue different research, research into education. Thus from these interactions I am reassured and would like to maintain and grow interests in topics different from the one I am currently focused on and not be afraid to change topics if I find a new passion. I would also like to keep closer track and pay more attention to moments in my life that

I feel caused or will cause larger impacts further on.

Brian Schmidt as his role as a vice-president for a university also stressed the importance of good research support staff which I don't think is typically encouraged enough as a successful and important career in academia.

3. 諸外国の参加者とのディスカッション、インフォーマルな交流の中で、どのような点が印象的だったか、 どのような影響を受けたか、また自身の今後の研究活動にどのように生かしていきたいか。

We had many discussions about how a lab is structures and benefits and disadvantages of everyone in a team working towards one common goal or having diversity in the research of different members. Also if it is better to be working on an idea directed by a PI or to spend the time developing your own idea and working on it in the context of your group. These discussions gave me new insights into how I am currently working in my own group and how some changes may be made to make the working environment more effective.

4. 日本からの参加者とのディスカッション、インフォーマルな交流の中で、どのような点が印象的だったか、 どのような影響を受けたか、また自身の今後の研究活動にどのように生かしていきたいか。

I was impressed by many Japanese researchers who were working at universities outside Japan but could still receive support from Japanese funding agencies. I think this gives them a nice perspective on different types of research styles conducted in different parts of the world and allows them to incorporate different methodologies they learn from different places to make an improved process.

5. 特に良かったと思うリンダウ会議のプログラム(イベント)を3つ挙げ、その理由も記載してください。

The Open Exchange sessions were quite good as they were generally free sessions for asking questions and you could hear a wide variety of questions from other participants. I enjoyed the partner breakfast hosted by Austria about Big Science which was a topic I did not know much about but it was interesting to hear how people felt working in large collaborations. There it felt generally more supportive as there are more open discussions between different researchers in different countries whereas for smaller science experiments there is often competitiveness and secrecy that hinders or doesn't encourage progress.

The Heidelberg lecture and discussion with Tawakkol Karman were also very good events as they gave a nice shift in perspective from science focused thinking to more ethical and widely consequential themes. Both these talks brought up many points not usually discussed in a scientific context and at conferences.

6. その他に、リンダウ会議への参加を通して得られた研究活動におけるメリット(具体的な研究交流の展望がもてた場合にはその予定等)

Although most people were working in fields and research topics quite different from mine it was interesting to find how interests and expertise in certain topics are concentrated in different countries. So I gained a better sense of where certain types of research are most active.

7. リンダウ会議への参加を通して得られた上記の成果を今後どのように日本国内に還元できると思うか。

In general, the main benefits for Japanese researchers attending the Lindau conference would be to broaden their perspectives about the types of research being conducted globally and the working environments in which they are performed. In this way they can identify certain environmental or social aspects that may be better or worse for different aspects of research and have those in mind to if they continue in research to implement improvements in their own groups which may spread to other Japanese research groups.

8. 今後、リンダウ会議に参加を希望する者へのアドバイスやメッセージ

The schedule during the meeting is quite packed. There are many sessions which run simultaneously such as the Agora talks. There is some pressure to attend all sessions but actually times to talk personally with Laureates is quite limited in the schedule. However some Laureates will stay in the main halls or in the city during some sessions and this is a good opportunity to talk with them more personally. If there are some sessions that you are not especially interested in it may be more valuable to step outside and find someone to have a more personal discussion with. All the talks are now recorded and posted online so they can be watched later even if you miss them. Have some questions for specific laureates prepared as the chances to meet them are quite short and can be unexpected.