**Panel Summary**

**Proposal:** *Impacts of predation on the chemical ecology and microbiome during coral restoration*

**Principal Investigator:** Cassie Raker

**Panelists**: Jenn Soukup, Ian Bishop, Erin Chille, Amy Zyck

**Overview:**

The aim of this proposal is to quantify the chemical cues of fragmented corals from the Mote lab in the florida keys with regards to parrotfish predation. The PI of this proposal has observed how parrotfish were predating coral fragments that were recently placed in a coral garden by Mote lab while seeming to leave older fragments alone. She noticed that, specifically, after one month predation by parrotfish was reduced. This study plans to: 1) quantify the time period where acclimating corals are less likely to be predated, 2) determine the chemical compounds in lab raised, unacclimated, and acclimated corals, 3) determine the changes in microbial diversity in lab raised, unacclimated, and acclimated coral fragments.

**Intellectual Merit:**

*Strengths:*

This study will help to increase the survival of newly transplanted coral fragments as well as understand the complex biochemical processes that affect coral predation. This study could help make coral restoration practices in the florida keys more successful and more efficient.

*Weaknesses:*

The panel agreed that all three graphics could be smaller and the first two graphics were not as useful in framing your work in comparison to the third graphic. The panel also agreed that a map would have been helpful of where the lab was located as well as a graphic of your study design would have been very helpful with regards to conceptualizing your experimental design. The panel also agreed that it would be interesting to take a subset of the acclimated corals and place them back into the lab setting to see if the microbiome would change.

**Broader Impacts:**

*Strengths:*

Broader impacts were very good and incorporated outreach for students/organizations at both URI and the communities in the florida keys. Additionally, broader impacts include using the results from the study to improve an established workshop curriculum for coral scientists from around the world.

*Weaknesses:*

While not necessarily a weakness, this study could definitely take advantage of social media as well. Taking pictures of tours, coral work, being out on the reef, the workshops, etc. can be very beneficial for spreading the word on this study and the benefits it could have on coral restoration.

Overall, the panel agreed that this proposal and study is very thorough and well executed with regards to scientific outreach and intellectual merit.