

SECOND INTERNATIONAL SYMPOSIUM ON RANAVIRUSES

VIROLOGY AND IMMUNOLOGY OVERVIEW DISCUSSION SESSION

LOCATION: Parlor 4, Holiday Inn World's Fair Park, Knoxville, TN

TIME AND DATE: 17:00 – 18:00, July 27, 2013

LEAD BY: Dr. Jacques Robert, University of Rochester Medical Center

MINUTES TAKEN BY: Roberto Brenes, University of Tennessee

POTENTIAL ACTION ITEMS:

1. Research Needs
 - Development of ranavirus non-lethal ranavirus techniques that are more reliable.
 - Investigations into the immune response of amphibian species other than *Xenopus* spp.
 - Identification of ranavirus/iridovirus genes that are responsible for virulence.
 - Determination of the optimal temperature range of viral replication.
2. Outreach
 - Determination of what information people are willing to share and a common method of acknowledging their contributions to the work of others.
3. Tasks
 - Development of standardize techniques to detect ranaviruses in both lethal and latent infections.

MEETING MINUTES:

- There is very little information and genetic markers for most amphibian species, only few species (*X. laevis* and *tropicalis*) with immunological information (antibodies, etc) available.
- We don't know the levels of immune response of most species.
- There need to be an effort to understand the whole genome structure, of what is not too much data, only few proteins have been sequenced.
- In China, they are working on sequencing whole genomes, and they have some info at the protein level, but most cells used are not immune cells, which are not many markers.
- The question of how survey Ranavirus not using lethal techniques.
- The possibilities of standardized techniques to detect ranavirus are available. There are not standardized methods, but there are things that should be taken into consideration depending in what your question is. For example, to look for antibodies in blood. Dr. Ariel mentioned that she used an ELISA with turtle blood, it didn't work out in the lab but there was an immune response in wild animals.
 - Dr. Ariel has mentioned that she currently has polyclonal antibodies
- Latency in Iridovirus infections was discussed,
- Temperature ranges to grow the virus were discussed; Dr. Ariel commented how virus may slow down with temperature and then come back once the temperature becomes optimal again. It would interesting to see if virus that been latent loses infectivity when comes back.
- Dr. Robert asked what kind of information are people willing to share
- Possibilities to develop a vaccine were discussed.
 - The idea of an attenuated vaccine was presented.

- There was a discussion about knockout genes and the possibility to have double knockout, to improve chances.
- Immune response of other amphibian species besides *Xenopus* should be tested
- The need to identify other genes involved with infectivity was discussed