



WORKING HARD AND TAKING A BREAK: WHAT MHIRT STUDENTS DID ON THE 4TH OF JULY

Up-date on Research Progress:

Computer-based Data Analysis: Last week, **Jeff** and **John** shared their frustrations with us about their projects. Did they solve their problems? This week, Jeff wrote “.... , I started working on the Princess PrEP dataset (finally) and realized how complicated statistics can be.” John informed us, “In terms of science I am completely stuck and I have no idea what how to go about bioinformatics anymore. Computers completely befuddle me.” Hang in there guys. Who said statistics and bioinformatics was easy?

Laboratory Progress with PCR: In Cameroon, **Michael** assisted the technician Robert with nested PCR of the capsid region of HCV. “With all of our PCR products run on a gel to test for the desired amplified region, we were able to package them for sequencing. We were able to send out 33 samples out for sequencing. Next week I will be doing extraction, amplification, migration, and packaging of HCV samples by myself...” **Ernest** wrote that he “continued conducting PCR and hybridization on suspected non-tuberculosis mycobacterium (NTM) cultured isolates. Although the samples are suspected of having NTM, it does not always seem to be the case when interpreting results.” In Thailand, **Gabby** “independently performed three Taqman SNP assays (rs-1, rs-4, and rs-6) and gel electrophoresis on the DNA samples that I extracted previously.” “After analyzing the results from the SNP assay, we noticed that some wells showed negative results.” “After my discussion with my mentor and PI, she suggested that we alter the protocol.” **Tiffany** says that “during the work week Dr. Som and I went over the LAMP assay manual from OmniAmp (RNA & DNA LAMP kit). She gave me a protocol that her labs used in Japan on Dengue as an outline, and this week we are working on editing and perfecting a protocol for BK.” Like the PCR projects, **Meno’s**, **Tiana’s** and **Jessie’s** research projects are also making progress.

Taking a Break: After working in the lab all week, students in Thailand and India took a short break during the weekend to explore their countries, while students in Cameroon continued working on a community service project that will be highlighted in the next Newsletter.

India: Tiana and John did a day trip to Agra, which was reached by a 2-hour train ride. They visited the Taj Mahal, Agra Fort, and Mehtab Bagh. Tiana says, “It was definitely a once in a lifetime opportunity, especially seeing one of the Seven Wonders of the World! I am definitely appreciative of the MHIRT program and this awesome opportunity that was given to me.” John agrees that the Taj Mahal is “Rightfully named the 7th wonder of the world. Also monkeys, I played with a monkey.” (What is the monkey whispering in John’s ear?)



Thailand: Meno, Jeff, Gabby & Tiffany traveled to Phuket (see map). Here is their composite report. “This past weekend, we traveled south of Thailand to visit the islands of Phuket. Since we only had two days and one night to experience all that Phuket had to offer, we were constantly on the go. After landing on Saturday morning, we beach hopped to Karon beach then Freedom beach. I cannot explain how nice it felt being back in the ocean! The water in Thailand in my opinion is warmer than Hawaii so you don’t have to experience that initial coldness once you enter.” “It was much needed ocean therapy and to get away from the city life of Bangkok. The beaches are beautiful but everything is overpriced compared to Bangkok.” Later that night we visited Bangla Road which is known for their night life.” “Bangla Road was definitely not a disappointment, it had everything and more that we expected crazy Thailand night life to be like.” “On



Sunday we took a boat tour to Phang Nga Bay. The tour consisted of canoeing through a bat cave and a mangrove forest, seeing James Bond Island, and swimming in a nearby beach. The scenery was absolutely breath taking." "We were all in awe of the beautiful formations from limestone that were created apparently over 900 of these "islands" are in the bay. We also got to go inside of a bat cave, which was a little spooky but an amazing experience to say the least. After our tour we went back to Bangkok to continue with our hard work for the coming week." "All in all, this was a much needed weekend getaway from Bangkok."

Haircuts in Cameroon: Ernest and Michael made a much-needed trip to the barber shop. "It was completely different from Hawaii because for only 10 dollars you can get a facial massage, a shave, and a head and back massage. It did however take 2 hours, but it was worth every minute." You guys definitely look better after spending an afternoon at the spa.



Before



After



Before



After

Learning to Eat Yellow Soup with Achu: This is a traditional dish of the western part of Cameroon where cocoyams (also known as taro) grows well. If you are interested in making the dish, a recipe is below, but you will have to ask Ernest or Michael to bring you the spices. "Abanda took us to a restaurant called "Ye-lo", where we ate the traditional delicacy achu. It was quite neat how they presented the food on a plate in bowl made of paste with yellow soup. You use your fingers to scoop a little of the paste, then dip it into the

soup. You had to try your best not to completely break the paste bowl so the soup won't spill all over the plate. Luckily Abanda was there to teach us otherwise we would've looked like a bunch of babies figuring out how to use a spoon."



Achu: Ingredients: 5 big cocoyams (taro), 4 green bananas, water to mix. Procedure: Wash cocoyam (taro) well; put in a pot, add water and stand over heat; wash green bananas and add to cocoyam and banana and pound on at a time, using a wooden mortar and pestle; re-pound while mixing little bit of water until mixture is smooth; and serve with green or yellow achu soup.

Yellow achu soup: Ingredients: 1 kg meat or dry fish; 1 cup palm oil; 1 liter of water; a piece of lime stone; salt and pepper to taste; and Achu soup spices (found in African shops). Procedure: wash meat or fish thoroughly, cut into required pieces, season with salt and boil until cooked; wash and grind separately, pepper, black pepper and other condiments; heat red palm oil until very hot; put limestone in hot red palm oil and stir; pour meat stock into the hot red palm oil with lime stone and mix until soup is foamy; Place prepared ball of achu in soup plate, make well in the middle and serve the soup in the achu well; and with the right hand index finger scoop achu at a time from the outside, dip into the well of soup and eat. Of course, there are a number of different recipes for this dish that can be found on the Internet.

Fourth of July:



India: "We celebrated Fourth of July as best as we could! We had a nice dinner that reminded us of home (bacon cheeseburgers with a side of fries) then we came home and popped some fireworks! Unfortunately some aerial fireworks were making too much noise so we got shut down

by the security of our guesthouse. Here is a picture of us enjoying and proudly celebrating Fourth of July all the way in India! Proud to be American!"

Thailand: The group worked in the lab and tried to catch-up after the weekend away. Jeff

wrote: "For July 4th, I actually stayed at Viva for the day since my stomach was feeling a little funny, ... There was no celebration of the holiday, sadly." Good news, Jeff is now feeling fine. Tiffany: "On the fourth of July, I didn't celebrate the holiday. I spend most of the day catching up on sleep after work." Similar messages from Gabby & Meno.

Cameroon: How did students in Cameroon celebrate the 4th? Surprisingly, they went to a Chinese restaurant.



Yukie pouring tea to Michael and Uncle Joshua