

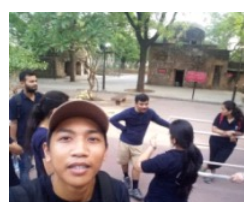
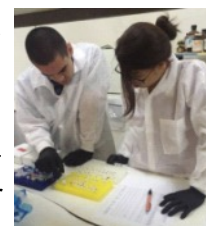


Monday, May 29 through Sunday, June 4, 2017
Newsletter 2

BEGINNING RESEARCH – ADJUSTING TO LIVING ABROAD – HAPPY BIRTHDAY BRIANNA!

May 29 was Memorial Day holiday in the USA; however, it was the first day the MHIRT students began their summer research experience. They faced challenges of overcoming jet-lag, getting up on time, traveling to work, meeting their research mentors for the first time face-to-face, making friends with laboratory staff and students, and beginning to focus on their research projects. We are happy to report that all of the MHIRT students successfully completed Day #1 and have begun to settle into a routine. After spending their first week in the lab, they had time on the weekend to start exploring local sites. MHIRT students have telephones that work locally and they are on “speed-dial” with each other, their local mentors, and in-country advisors. So, students at each location are *staying connected*.

CAMEROON: Team Cameroon arrived Sunday night. Monday was spent reclaiming lost baggage, and overcoming the 11-hour time zone difference. Brad reports that *“We were in the lab starting on Wednesday. We received five biosafety training modules. We also received a lab orientation and saw the Immunology lab we’ll be working in, as well as the Public Health lab next door.”* Jovikka says *“We were able to organize all our laboratory supplies to get the project started. Luckily, none of our supplies were damaged during our connecting flights.”* They spent “some time organizing saliva samples on Thursday and unpacked the majority of our research supplies on Friday. Next week we will take our biosafety exams.” Outside of work, Jovikka informed us that *“Last Thursday, we celebrated Prof. Robert Leke's birthday with a cake and banquet of food.”* On Saturday, Brad, *“We got up early today to go the Leke's farm. They grow a wide variety of plants: bitter leaf, coco yam (taro), oil palm, pineapple, mango, avocado, corn, coconut, and probably other plants as well. We got to help weed the farm, which was harder than I thought it would be.”*



INDIA: In New Delhi, Michael says that *“part of this past week was just more literature reading and preparing for a presentation that I had this past afternoon. Dr. Tandon seemed to believe I did a pretty good job.”* On the weekend, *“Dr. Tandon, his lab, the neighboring lab, and I walked around Delhi on Saturday from around 5am to 9am. We walked from the JNU, through Sanjay Van, to Qutub Minar, and all the way to Hauz Khas --- seeing historical sites along the way. We also went out for lunch later around 2pm at Hauz Khas village. Overall, pretty fun day.”*

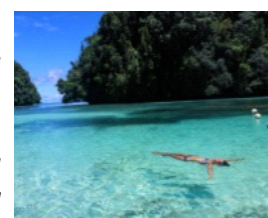


PALAU

“This week our objective was to set up the lab and our project teams with the Step Up program students. Setting up the lab was challenging.” “The two CO2 incubators were not working. I [Brianna] was extremely worried that my project was not going to happen. I downloaded the incubator manual to my phone and spent the next two days looking for a solution. I emailed the incubator company. We were able to fix the heating and CO2 injection [problems].” Well done, Brianna, life as a



researcher requires perseverance. Jessica’s project is going well and we’ll highlight it next

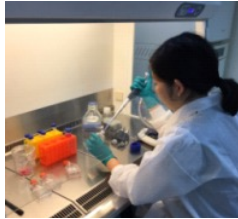


Brianna on her 24th birthday

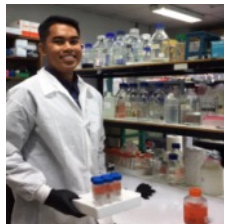
week. Jessica announced that *"This weekend was Brianna's 24th birthday and as a surprise work trip, we got the privilege to go to Rock Islands. They are beautiful limestone islands with white sand clear blue water and coconut trees."* Later Brianna informed us, *"For my Birthday, I had dinner with the Step Up students at Palau Pacific Resort. The resort was beautiful, and the food was great!"*

THAILAND

Rangsit: Ashley started her research immediately after arriving by transferring cancer cells from cryo-preservation into tissue culture. However, she found on May 29, *"I just checked the cells but they [Colo 205] are not adhering to the T25 flask."* The next day, the *"Colo 205 cells were sub-cultured into 4 flasks yesterday, and today, they seem to be growing well so I half-fed them with new media."* On June 4, *"Today, I went to lab and changed media for MCF-7 cells we received from a colleague and Colo 205. Sadly, most of our Colo 205 has not grown over the past week."* Ashley is quickly learning the up's and down's of cell culture. Sometimes no matter what you do, the cells refuse to behave. Culturally, *"today on campus, I noticed students from Rangsit's Med Tech (medical technology) was doing leadership and trust exercises with their fellow students. Much like our leadership and student associations at University of Hawaii, Thai students were also engaging in ice breaker activities and congregations for comradery. I thought that was really cool."*

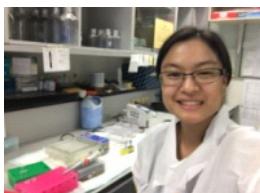


Chiang Mai: Message from Mark, *"On the very first day Dr. Sirida informed me that I would have my own mini experiment in comparing the immune response between Penicillium marneffe (more virulent) and Penicillium citrinum (less virulent) through the inoculation of THP-1 cell line (monocytic cell line) and measuring the cytokine response via an ELISA. On top of that I will also be working in concentrating and purifying the monoclonal antibodies for Cryptococcus neoformans as part of their main immunochromatographic assay development experiment."*



Translation: I'm going to be one busy guy! Likewise, Lean found, *"The first week of work was pretty rough I'd have to admit. I didn't realize how much coding I had to do to operate the brain imaging software, FreeSurfer. With little to no experience with UNIX commands, I spent most of this week learning and so far, I am getting the hang of it."* Outside work, *"This weekend, Mark and I visited Tiger Kingdom and yes it was safe for us to pet the tigers and small lions. I did a lot of research before going there and afterwards we visited the Huay Tung Tao Reservoir and it was really beautiful."*

Bangkok: *"I [Cindy] was put to work in the lab right away, and I performed a gel electrophoresis and DNA extraction on a PCR product for domain 3 of the Zika virus (ZIKV) envelope protein."* *"We ran a restriction enzyme digestion followed by ligation into two different vectors, pGEM and pRSET B."* *"On Friday, I screened 52 colonies, the most samples I have ever worked with, by PCR to determine which colonies may contain our plasmid and insert of interest for domain 3 of the ZIKV envelope protein."* Clearly, that project is moving along rapidly. *"I [Sasha] have starting working on learning how to thaw frozen hybridoma cells and culture them. I have started purifying antibodies and preparing plates and media to test antibody activity using ELISA. I also prepared SDS-PAGE gels and buffers."* Sounds good. *"In the lab, I [Brithney-Nicole] worked alongside Dr. Nuankanya, identifying and classifying the nematocysts of the box jellyfish; Morbakka spA and Morbakka spB, which are the names given to the new species of the box jellyfish specific to these Thai waters."* What's are nematocysts? We'll tell you next week. *"From May 29- June 1, I [Dwayne] was working with the [HIV] Prevention Team in Thai Red Cross under the supervision of Dr. Reshmie; then, on June 2 until June 6, I will be working with the SEARCH team (clinic for HIV patients) seeing patients regularly, under the supervision of Dr Colby and Dr. Fletcher, Dr. Reshmie."* So, Dwayne is getting some clinical research experience. On the weekend, the group *"explored Bangkok by paying a visit to the Grand Palace, the reclining Buddha, and the zoo."*



Cindy in the lab

