Highlighting Three Research Projects in Bangkok
We continue to highlight MHIRT 2015 research projects. Here are three more:

**Sakaria (Sai) Auelua-Toomey**, is majoring in psychology and has a strong interest in communications. He is conducting his project at SEARCH (South East Asia Research Collaboration with Hawaii) and says, “The purpose of the study I am working on is to work with TGW (Transgender Women) and health professionals to identify culturally relevant, appropriate, and respectful approaches to interacting with the TGW community in a health setting. My part within this project is to compare the use of online surveys and paper surveys to the administration to participants. I am also identifying transcription software to help with analyzing qualitative data within interviews. The significance of this project is to decrease the health disparity in individuals who are affected and infected by HIV. One factor that facilitates this disparity is health questionnaires that do not recognize the specific needs of TGW. This can create problems in getting the appropriate treatment needed for TGW because health questionnaires may not ask the appropriate questions that are needed to obtain information from the TGW population.” His mentor at SEARCH is Dr. Charlene Tomas, who is an UHM-NPGH Fogarty Post-doctoral fellow conducting research in Thailand and Dr. Nittaya Phanuphak. His UH mentor is Dr. James Campbell.

**Taneesha Asing** (left in photo), is a Biology major who will be a Senior next Fall. She reports: “Dengue virus (DENV) and Chikungunya virus (CHIKV) cause febrile signs and symptoms similar to those observed in acute malaria infection. In Thailand, malaria [which also causes fever] is limited to only a few provinces bordering Cambodia and Myanmar, while DENV and CHIKV are more widespread.” Thus, Taneesha and her mentor, Dr. Pornsawan Leaungwutiwong want to know: “Are there any other viruses (e.g. DENV-1, -2, -3, -4, CHIKV, Japanese encephalitis virus, Zika virus) besides malaria that could be a cause of fever in patients in the malaria endemic area?” To answer this question, they are extracting RNA from human and mosquito samples collected in a malaria-endemic area “and using PCR and DNA sequencing to identify DENV, CHIKV and other common viruses found in Thailand from malaria positive and negative subjects.” Taneesha’s UH mentor is Dr. Mukesh Kumar.

**Kellyan Nguyen** (right in photo) is also working at Mahidol University with Dr. Leaungwutiwong. She says, “My project is Detection of Hepatitis E virus in raw pork from markets in Bangkok and Western Thailand. Hepatitis E, also known as epidemic, non-A, non-B hepatitis, is an acute, enteric, infectious disease. The disease, caused by Hepatitis E virus (HEV) is usually mild, except in pregnant women, who suffer a high fatality rate from fulminant hepatic failure. Information on the disease in Thailand is limited, so I hope that my contribution towards this research will ultimately help with the detection and prevention of Hepatitis E in humans, within farm animals, and meat markets. This project involves collecting feces from human and animal farms (pig, human, dog, duck, chicken, bird, and cow) located in Nakhon Pathom Province and Kanchanaburi Province and raw pork products (such as: Ground pork, pork sausage, intestines, liver, pork blood, fermented pork, and pork meatballs) in the meat markets at Nakhon Pathom province to screen for HEV. Experimental procedures include sample collection and preservation, RNA isolation, real-time PCR screening and DNA sequencing. Kellyan’s UH mentor is Dr. DeWolfe Miller.
Special Cultural Events

The 4th of July. We asked MHIRT 2015 students what they did and what foods they ate on our Nation’s 239th birthday. Here is what we learned:

In Germany, Robinson “This fourth of July was spent barbecuing at the Isar with some good company! We grilled up some BBQ chicken, steaks, bratwurst… Sounds very American, right? Some Germans had US flags out also celebrating our Nation’s independence? That was interesting to me.”

Christian and Sai spent the 4th in “Koh Samui, the largest island in the south of Thailand, They were the house-guests of Sai’s uncle (yes, the one we met at Parents’ Night at JABSOM). Chris felt that “in a sense, Bangkok and Samui are like Honolulu and Big Island, respectively. Bangkok is like Honolulu, the big bustling city where everything is fast paced, whereas Samui is like Big Island, especially Kona (given the landscape, climate, etc.), where everything is slow paced, relaxed, and lots of nature. I went total American today with my meal. I had a nice oversized ribeye steak with garlic butter and some potatoes! And like all of those other proud adult Americans, I had me a few delicious alcoholic beverages to celebrate our hard fought freedom.”

Raphael: “On Independence Day, I spent time with McMillan and a few graduate students from CMU. We enjoyed a stroll through an organic farm, where macadamia nuts, coffee and strawberries were grown. It is located in the mountains, 1 hour south of Chiang Mai City. We had a delicious Thai meal at lunchtime (sticky rice, fried pig intestines, fried/roasted chicken, fried catfish w/ vegetables, pork soup) on the bank of a stream. After eating, we caught a ride to top the stream and did bamboo rafting. It took us about three hours to steer our way down to the bottom of the stream. There were small snakes in the river and a couple of elephants bathing with tourists. That was extremely fun.”

Sairel: “To celebrate Maya and I had some street food for dinner at the Sukhumvit Soi 38…it was delicious! I’ve attached a picture of me and my yummy crispy pork.”

Chaewon: Sam and I celebrated the day by going to the Siriraj Medical Museum and exploring new places in Bangkok. We ate Korean food (as I always do at home) at Tudari, and had dessert at Chu's chocolate and cafe. It was nice to have a dinner that reminded me of home.”

Samantha: “Chaewon and I celebrated 4th of July by enjoying the "almost" new Teddy's Bigger Burgers location that just opened up here in Bangkok! We were in Siam Paragon on our way to a Khao Soi (Northern Thai Curry Noodles) Shop but stumbled upon the Teddy's Bigger Burgers stand. … they were selling promotional burgers at this small stand. We were so excited to enjoy a greasy all-American burger.”

Taneesha: Kellyan and I stayed home, ate lots of 7-11 leftover food, and watched movies the whole night. I wish we could have popped fireworks though! Nonetheless, we still had fun staying in.”

Integration of Alternative Medicine into Clinical Care in Thailand

Several weeks ago, Maya described a very interesting cultural-educational experience that illustrates why the MHIRT program supports research abroad. She wrote, “This weekend, I flew to Udon to visit my Lung (Uncle) Wima. Although I visited many temples and saw the countryside, my main goal in this visit was to tour Sawanang-daendin Hospital in Assuwang town. This hospital is one of the few in Thailand that has the infrastructure to provide clinical and alternative medicine. Since Lung Wima's sister is a nurse there, I had the honor of meeting many of the doctors within the alternative medicine department. My MPH final focused on culture and its role in health.”

“The hospital is very organized: patients check insurance status and determine payment first. Non critical and palliative care patients are often referred to alternative medicine. Once there, they check the patient's birthday and elements (fire, water, earth, wind). This is a great example of how culture and indigenous epistemology play into how Thai people view health. I was impressed to learn that they offer acupuncture, massage, palm reading, yoga, and herbal treatments. There is referral between departments and their patients get to choose between two routes: completely traditional healing, or an integrated option where everything is first approved by a clinical doctor. All alternative medicine healers are certified through the medical university, must test for their license, and go through residential training. In Thailand alternative medicine is supported by the Ministry of Health. I hope that one day Hawaiian alternative medicine can have a similar infrastructure within a hospital and receive this kind of government support.”