

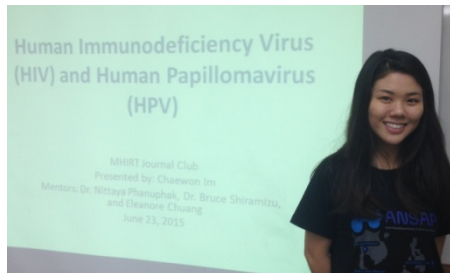


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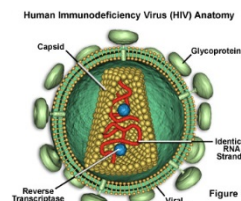
HIGHLIGHTING TWO RESEARCH PROJECTS, JOURNAL CLUB AND THE GEOGRAPHY OF THAILAND

This week, we highlight the final two projects:

Chaewon Im, is working with Eleanore Chuang at SEARCH. She writes, "Human

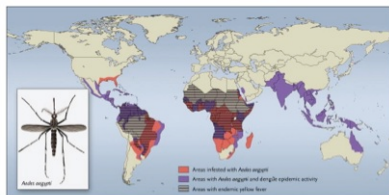


Papillomavirus (HPV) is one of the most prevalent sexually transmitted infections in the world. HPV 16 and 18 are responsible for ~70% of cervical cancer in the United States. It has been demonstrated that HIV infection increases the risk of HPV acquisition and the development of HPV associated cancers, but less is known about the effect of prior HPV infection on HIV acquisition or seroconversion. Our study is looking at the relationship between prior anal HPV infection to HIV seroconversion in a Thai MSM (Men who have Sex



with Men) and TG (Transgendered) cohort. The MSM and TG populations have been found to be at a higher risk for HIV infection. We are utilizing the Roche Linear Array HPV genotyping assay and validating qPCR assays to determine copy numbers for HPV 16 and 18. The data we collect may provide insight into the relationship between HPV and HIV and evidence of HPV infection as a risk factor for HIV seroconversion. Her UH mentor is Bruce Shiramizu.

Maya Uemoto is working with Dr. James Kelly at Mahidol University. They are researching immune responses of humans to dengue virus. This mosquito-borne virus is currently not found in Hawai'i, but it does infect people around the world, especially in the tropics. She describes her project, "The importance in studying dengue lies in the fact that there is currently no vaccine to treat dengue because of the lack of consensus about its pathogenesis. It is also unknown why only some patients with dengue fever progress to a more severe form--dengue hemorrhagic fever (DHF) and



dengue shock syndrome (DSS)." Therefore, the group is trying to figure out why some people become very sick, but others progress to more severe disease and may die. "In order to study this progression, whole blood samples were collected from subjects diagnosed with dengue fever. In this investigation, we are using flow cytometry to identify cytokines and chemokines that trigger increased vascular permeability with DHF/DSS patients." Maya's UH mentor is Pakieli Kaufusi.



Journal Club is an important part of MHIRT training. Thanks to the leadership of Dr. James Kelly, Journal Club has been a huge success this year. With the help of their Thai mentors, MHIRT students select a scientific article for the group to read. They send a copy to their colleagues and other researchers in Thailand. On Tuesday mornings, everyone meets at Mahidol University, the student who selected the paper summarizes the key points of paper and then it is discussed. McMillan and Raphael at Chiang Mai University, join the meeting via Skype. Unfortunately, Robinson cannot join in the meeting via Skype as it is 3:00am in Germany. Here is a list of the papers the students recently selected:

Sairel: Lau et al 2015. Metabolomic profiling of *Burkholderia pseudomallei* using UHPLC-ESI-Q-TOF-MS reveals specific biomarkers including 4-methyl-5-thiazoleethanol and unique thiamine degradation pathway.

Sai: Melendez and Pinto. 2007. 'It's really a hard life': Love, gender and HIV risk among male-to-female transgender persons.

Mc Millan: Kaewmalakul et al. 2014. Melanization and morphological effects on antifungal susceptibility of *Penicillium marneffe*

This summer, the MHIRT students have travelled from virtually the top to the bottom of Thailand.

Raphael: “Last weekend, I went to Krabi in southern Thailand. I spent the weekend with Sam & Chaewon to celebrate Sam's birthday. We did an island hopping tour by boat, snorkeling, and swimming. On Sunday, we did rock climbing, hiked to a waterfall, and walked 1,300 steps up a steep mountain to see a giant golden Buddha. It was strenuous and I was soaked in sweat by the time I reached the top, but the view from the top was marvelous and the serenity of the place was surreal.



Samantha, Chaewon, Raphael & Sai: “I got to see many of the Islands of Phuket, one of the really interesting Islands was this Thai Muslim Island called Ko Panyi. This Island is home to about 3000 people and has its own education system which supports students from grades 1-9. To further their education beyond that, they would need to take a 30minute boat ride to the mainland. It was really interesting to see this place because everywhere that I went was heavily influenced by Buddhism, but this place was built on a Muslim background so the people dressed differently and had houses that were different from what I usually see.



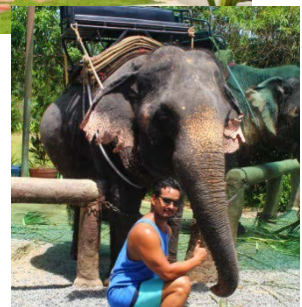
Mc Millan: “I went to the Golden Triangle, the border of Laos, Myanmar and Thailand, where the site of the former center of opium transaction in Asia held place. The golden triangle is the gateway to China from the Southeast that's why many establishments are run by Chinese business men, including the famous Casino of Laos Vegas, near the banks of the legendary Mekong River on the Laotian border. I also went to the famed White Temple of Chiang Rai and visited the northernmost tip of Thailand bordering Myanmar.



Sai: “This weekend, I went to Koh Samui with my Uncle and Chris. It was really beautiful and was the closest thing to Hawaii that I have seen in Thailand. We went to a couple of the beaches over there that were pretty cool, but they were nothing compared to Hawaii. The water was actually really warm as well. We got to go elephant trekking which was a pretty cool experience! We all experienced the nightlife of Koh Samui, which was really fun. This area is a very attractive tourist spot, so this was also the first time in Thailand that I have seen more Europeans than Thai people. It was a good weekend to recuperate and I am ready to get back to work!”

Chris: “The best memory of Koh Samui that I will reminisce about forever is riding elephants. It was pretty boring at first, sitting on top of an elephant but at one point the rider jumped off and let me sit on the neck and ride the elephant bareback style. It was definitely scary, but a great experience I'll never forget.

Meanwhile, in Germany, Robinson wrote, “I also took a dip in the world famous Eisbach with summer in Munich in full effect. Floating down the Eisbach was very refreshing and I plan to do it again. I also plan to do some surfing here before I leave! (Photo on the right is from the internet showing surfing on the Eisbach). Robinson, we can hardly wait to see a photo of you hanging-10 in the Eisbach!



Hi Mom, Can I bring him home?

