

people a year travel to and from the U.S. and infected outbreak regions)

▣ local spread (*Aedes aegypti* mosquitoes, which do exist in the U.S., especially in the southeastern part of the nation, bite recent travelers and then bite people who never left the U.S.)

“The critical issue is, what is the sustainability of that local spread,” said Fauci, describing *aegypti* as “a bad news mosquito” that CDC director Dr. Tom Frieden calls “the cockroach of mosquitoes, because...indoor, outdoor, they bite during the day. They bite during the night. It can breed in a cupful of water.”

Aedes albopictus mosquitoes, which are far more prevalent in the U.S., are also a possibility for spreading Zika. “Certainly *aegypti* are not the only mosquitoes that can transmit this. We know about the *africanus* in Africa, but we don’t know the efficiency of the *albopictus*. We hope Zika does not adapt itself well to *albopictus*.”

Yet another unknown Zika variable worries health officials.

“Here is something that has really compounded the difficulty we are facing,” Fauci said. “Not only is this the first infection—to our knowledge—that is mosquito-borne that can cause a congenital abnormality, but sexual transmission is also an unusual situation.”

Although first reported in 2008, demonstration of Zika in semen was confirmed a month ago in Dallas. Six cases of sexual transmission of Zika virus have been documented in the U.S. as of mid-March. Investigators do not know how long the virus survives in semen and can be transmitted after an individual recovers from an acute infection. So far, scientists have documented as long as 62 days, but investigators do not have enough experience with Zika to know for certain.

In addition to mosquito bites and sexual contact with men (So far, “there is no evidence that Zika is sequestered in the genital area” of women, Fauci noted in response to a question), blood transfusions also can transmit the virus.

In terms of research under way, Fauci said investigators are close to developing improved diagnostics for Zika, using the framework already developed for other flaviviruses.

In addition, by employing a platform previously designed for West Nile virus,

scientists have several concepts for a Zika vaccine, including one that is “shovel-ready.” NIAID is likely to start a phase I clinical trial with one candidate vaccine by September 2016, and to advance to a larger efficacy trial potentially by early 2017.

In the meantime, Fauci said, mosquito avoidance is essential, with biomedical research also actively investigating several novel ways of vector control. In addition, both the CDC and FDA have issued guidelines for travelers, particularly pregnant women and their partners, guidelines for avoidance of sexual transmission and

recommendations for blood donation/storage organizations.

Concluding the lecture, Fauci said, “I want to emphasize something that’s very challenging but also very exciting with infectious diseases: When I ended the talk on Ebola in this auditorium at this podium a year or so ago, I said, ‘We still have this challenge of Ebola, but this is not the end. There always will be another challenge.’ This proves that [statement] is true.”

View the entire presentation, including Q&As, online at <https://videocast.nih.gov/summary.asp?Live=18734&bhpc=1>. **R**



At the lecture are APAO officers and members (from l) Bethanie Wang, Grace Ji, Phuong-Tu Le, Dr. Rina Das, guest speaker Dr. Grace Ma, APAO president Dr. Francisco Sy, Laura Wong and Jimmy Do.

Temple’s Ma Addresses Health Disparities

Dr. Grace X. Ma spoke on “Health Disparity Research in Diverse Asian American Populations: Present and Future” at an NIH seminar recently co-sponsored by the NIH Asian and Pacific Islander American Organization (APAO) and the National Institute on Minority Health and Health Disparities. Ma is associate dean for health disparities, founding director of the Center for Asian Health, Laura H. Carnell professor of public health and professor in clinical sciences at Lewis Katz School of Medicine, Temple University.

She discussed the driving force for Asian health disparity research, health disparities confronting Asian Americans, highlights from disparity research at the Temple Center for Asian Health and research opportunities for reducing health disparities among Asian Americans and other underrepresented populations.

Ma talked about the high rates of stomach, liver and cervical cancer among Asian Americans. She noted that more than half of Asian Americans diagnosed with diabetes did not know they had the disease and that they are more likely to develop type-2 diabetes despite having lower body weight (BMI).

Asian Americans ages 20-24 had the highest suicide rate. Ma emphasized the importance of

culturally tailored interventions in areas such as mental health and minority health research. Her research projects were supported by NIMHD and NCI.

Ma described some of the projects at Temple. About a hundred attendees learned about community-based participatory research principles and how such a model has been effective in community and clinical settings.

One interesting example is the Philadelphia Healthy Chinese Take-Out Initiative, in which the center collaborated with several groups. The project’s goal was to reduce sodium at the area’s more than 300 Chinese take-out restaurants and improve the health of customers, who are predominantly from African-American and Latino-American communities in which hypertension is especially widespread.

Ma described how a New York professional chef taught the restaurant chefs healthy ingredient alternatives in free classes. These restaurants received certificates of participation and marketing materials. In blind taste-test sessions, people not only liked the dishes but many did not notice the reduced salt. Key to the program’s success, Ma emphasized, was community engagement and especially work with African-American pastors, who took an active part in health education with their congregations.