

## UTSA IS AWARDED GRANT TO FIGHT MALARIA

UTSA Receives its largest grant from the Bill & Melinda Gates Foundation



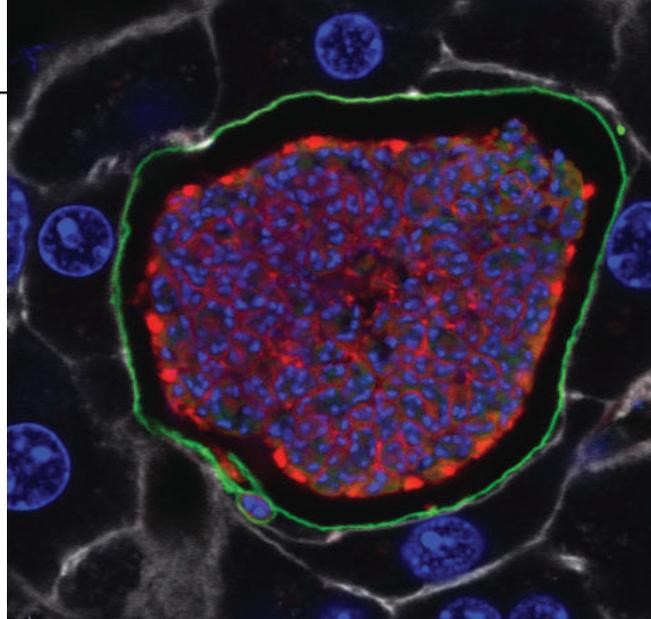
**KIRSTEN K. HANSON**

**KIRSTEN K. HANSON, PH.D.**, assistant professor with the department of biology and the South Texas Center for Emerging Infectious Diseases, is the Principal Investigator for a \$670,000 grant from the Bill & Melinda Gates Foundation. The grant was given as part of their Grand Challenges Explorations program, a family of initiatives fostering innovation to solve key global health and development problems.

It is the largest Bill & Melinda Gates Foundation award given to the University of Texas at San Antonio; it is Dr. Hanson's second BMGF grant award.

The Grand Challenges Explorations program issues specific challenges to solicit and fund key advances in preventing, treating, and curing diseases of the developing world. They want out of the box thinking to find real world solutions for global problems. Respondents submit a two-page proposal, which is then scored blindly. Anyone affiliated with an institution can submit therefore it is highly competitive.

Dr. Hanson received Phase I funding to address the challenge "New Approaches for the Interrogation of Anti-malarial Compounds" while she was a postdoctoral fellow at the



**PLASMODIUM LIVER STAGE PARASITE  
IMAGE COURTESY OF DR. KIRSTEN HANSON**

Instituto de Medicina Molecular in Lisbon, Portugal in 2013. She and her team developed new assays to identify compounds capable of killing liver stage malaria parasites, and performed a pilot screen with compounds. After receiving the initial grant, there is only one chance to secure additional funding in the subsequent two years. Shortly after joining UTSA, Dr. Hanson applied and found out in late autumn she was successful.

"Malaria is caused by Plasmodium parasites that infect red blood cells, but these parasites must first grow and mature in the liver. During this time, a person is infected but asymptomatic and cannot transmit the disease. The liver stage is a truly a key intervention point before any parasites reach the bloodstream, and we are focused on finding novel compounds that can target the parasite as it nears maturity in the liver," explained Dr. Hanson.

In Phase II, Dr. Hanson will continue her work on identifying and developing novel liver stage antimalarials to protect those in malaria endemic areas. She and her team will refine their assays, and plan to screen more and larger compound collections.

Dr. Hanson is also working with **DR. MATTHEW J. HART** at the Center for Innovative Drug Discovery (CIDD), a joint venture between The University of Texas at San Antonio and The University of Texas Health Science Center, at UTHSCSA. High content image-based screening will be carried out at CIDD in collaboration with Dr. Hart and his team.

"This grant award not only recognizes the academic rigor of Dr. Hanson's work but also it has a real world application. It's top tier research to resolve a global health crisis being done right here in San Antonio", added **DR. FLOYD WORMLEY**, Associate Dean of Research & Graduate Studies for the UTSA College of Sciences.