

## Penn Vet Student Named HHMI Medical Research Fellow

*By Katherine Unger Baillie*

Megan Clark, a third-year student at Penn Vet, was selected as a Medical Research Fellow by the Howard Hughes Medical Institute (HHMI). She is among 66 medical and veterinary students chosen to spend a year in a laboratory working with a mentor on a biomedical research project that the student proposed. Each medical fellow receives \$41,000 in grant support from HHMI, and fellows are eligible to apply for a second year in the program. The program allows participants a respite from their medicine or veterinary training to burnish their research skills, with an aim to produce physicians and veterinarians well versed in basic scientific research.

Clark first gained research experience as an undergraduate at the University of Delaware, where she completed a thesis focused on characterizing the immune cells present in the adipose tissue of dairy cows. She has continued to pursue immunology research while at Penn Vet, working in the lab of **Phillip Scott, PhD**, Professor of Microbiology and Immunology in the Department of Pathobiology. There, she has examined the role of T cell metabolism during infection with the parasite *Leishmania*, which causes a serious skin disease common in the tropics called leishmaniasis.

Recently, the Scott lab found that tissue-resident memory T cells are present not only at the site of *Leishmania* infection, but also at skin sites distant to infection, where these cells can be retained for as long as a year and play a role in protective immunity against the disease. During the fellowship, Clark will build on these findings, using a murine model to examine how these T cells migrate into non-inflamed skin sites and how they are retained in the skin to provide protection against leishmaniasis.



MEGAN CLARK