

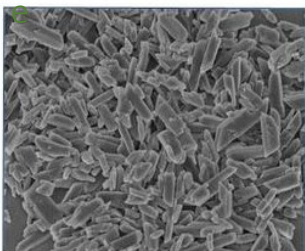


Coban LAB., 2017

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Hemozoin vaccine

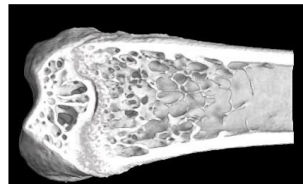


P. falciparum hemozoin

Lee et al., Vaccine, 2016

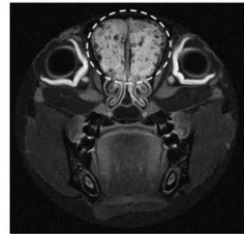
Malaria bone pathology

microCT scan of mouse femur showing bone during malaria

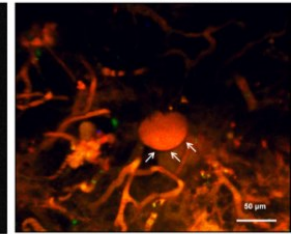


Cerebral malaria

A Ultra-high Field 11.7 T MRI



B Multi-photon Live Imaging



CD8 T cells(GFP-PiA)/Vessels

Malaria is caused by the *Plasmodium* parasite and is responsible for the deaths of over a million people each year. Approximately half the world's population is at risk of this disease, which infects 300 million people annually. The parasites have evolved many strategies that allow them to evade the host immune system.

We are investigating immune responses and pathology during malaria using mouse models and genetically-modified mice through various projects including:

- Investigating the pathological consequences of malaria on tissue homeostasis
- Role of the olfactory bulb in triggering cerebral malaria
- Can the malaria byproduct hemozoin be used as a novel vaccine adjuvant?

We are conducting these projects using diverse techniques such as fluorescence microscopy, live imaging of animals using 2-photon microscopy, microCT, flow cytometry, and many others.

Our studies are providing important new insights into interactions between malaria parasites and the host.