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## Research Title:

Studying the Gut-Lung  
Axis in people with HIV  
using Nuclear Imaging  
Techniques

We are trying to determine if the bacterial populations in the intestine (the gut microbiome) can affect lung health in people with HIV through specific signaling molecules in the blood. One aspect of this study is the measurement of lung permeability. We have developed a nuclear imaging technique to measure lung permeability and we are applying it now in an NIH sponsored clinical study. The technique involves inhalation of a radiolabeled probes followed by gamma camera imaging of the lungs. The role of the student will be to help with imaging acquisition and analysis. The project will provide exposure to imaging techniques, clinical trials, pulmonology, and HIV research.