The Medical University of South Carolina in Charleston and Columbia University in New York City are beginning a phase 1 safety study called the “LAM Pilot Study of Imatinib mesylate” (LAMP-1). This study tests a drug called imatinib mesylate for LAM to determine safety and see if levels of a marker for LAM disease called VEGF-D in the blood change. Potential participants can be on or off sirolimus and have a FVC <90% or FEV1 <90% predicted. The two month study of imatinib mesylate requires that the second month be off of sirolimus. Following the study, participants may resume any medication that is prescribed by their physician. Procedures performed during each visit include lung function tests, blood sampling, questionnaires, and a 6 minute walk test. This study requires 3 visits to Charleston or New York City. Travel reimbursement is available. More details are available by calling Kim Brown in Charleston at 843-792-6474 or Laura Fonseca in New York City at 212-305-3745.