Research:

Cerebral radiation necrosis remains a debilitating condition in patients who receive radiation therapy to treat brain cancer. Individuals who develop radiation necrosis in the brain can experience headaches, nausea, memory loss, seizures, and in the worst-case death. It remains an irreversible condition with treatment focused primarily on mitigating symptoms. In order to better treat the condition, the creation of an animal model to study the disease is critical to improve how cerebral radiation necrosis is dealt with. Andrew will go over a murine model developed to study cerebral radiation necrosis that uses Precision X-Ray’s X-Rad 320 to perform irradiations. MRI is used to track the development of cerebral radiation necrosis as time progresses. He will focus on how our model compares to the more common Gamma Knife models for studying cerebral radiation necrosis and how the selection of mice can influence the development of the condition.