Over the years, a large number of animal experiments have been conducted at the NASA Space Radiation Laboratory and other facilities under the support of the NASA Space Radiation Program Element (SRPE). Studies using rodents and other animal species to address the space radiation risks will remain a significant portion of the research portfolio of the Element. In order to maximize scientific return of the animal studies, SRPE is taking the initiative to promote tissue sharing among the scientists in the space radiation research community. This initiative is enthusiastically supported by the community members as voiced in the responses to a recent survey. For retrospective tissue samples, an online platform will be established for the PIs to post a list of the available samples, and to exchange information with the potential recipients. For future animal experiments, a tissue sharing policy is being developed by SRPE.