

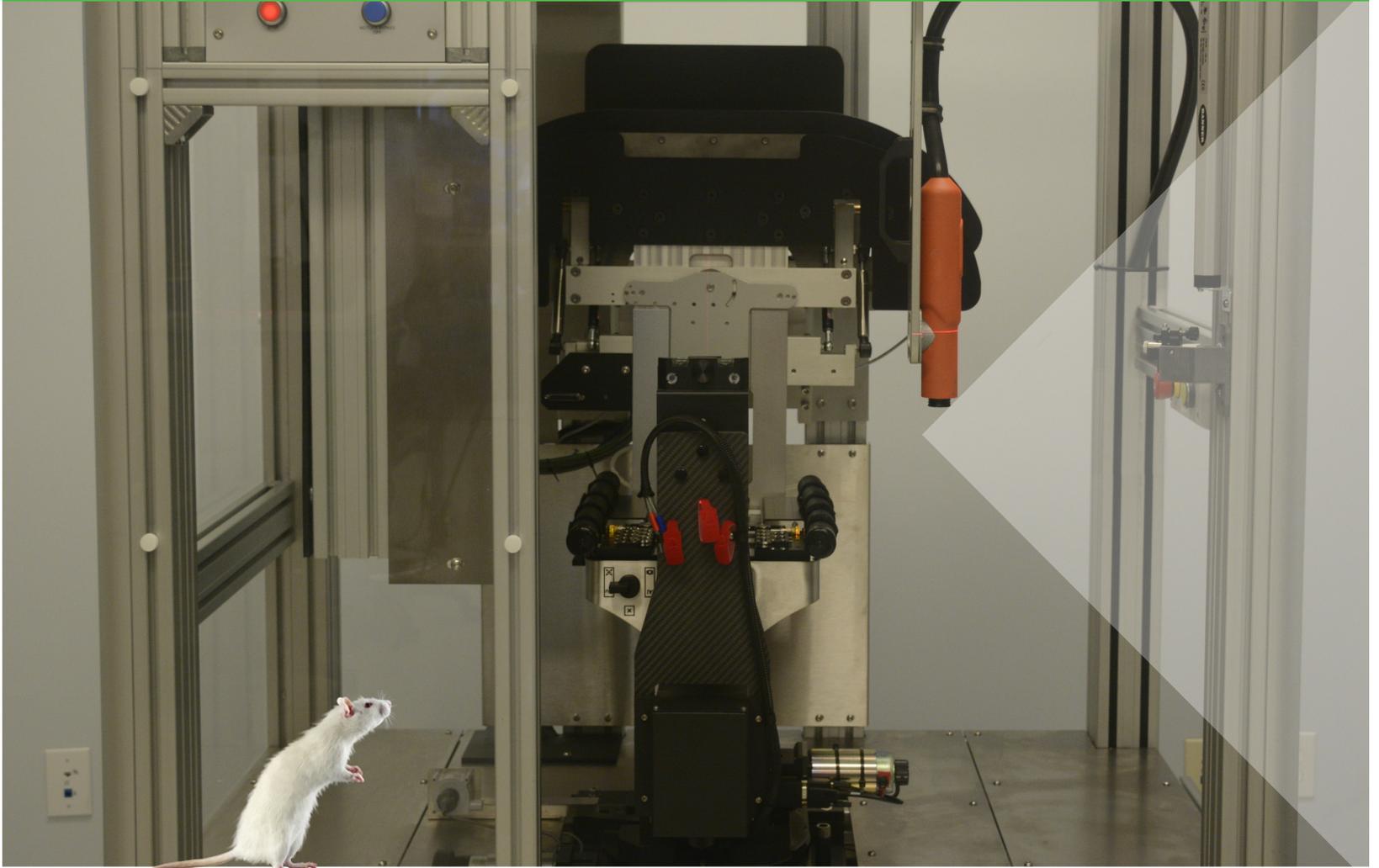
FLASH

CARBON

PHOTON

PROTON

sarrp
beamline



SARRP BEAMLIN

THE FIRST IMAGE GUIDED
PLATFORM DESIGNED FOR
PRECLINICAL PARTICLE
RESEARCH

FLASH

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SARRP has revolutionized the way in which preclinical radiobiology is conducted, truly mimicking clinical radiation therapy techniques. Particle therapy has demonstrated a clinical advantage over photons, for a select subset of cancers. As particle therapy moves into the routine clinical settings, there is an increased desire to understand and exploit the biological responses seen with proton therapy.

SARRP beamline is the first pre-clinical, image guided platform, designed specifically for pre clinical particle research. Working with leading particle radiation oncology institutions at the University of Washington and the University of Pennsylvania, SARRP beamline has already been shown to be the ultimate adaptable platform for *in vivo* proton studies.

Design and commissioning of an image-guided small animal radiation platform and quality assurance protocol for integrated proton and x-ray radiobiology research.

Kim MM, Irmen P, Shoniyozov K, Verginadis II, Cengel KA, Koumenis C, Metz JM, Dong L, Diffenderfer ES. *Phys Med Biol.* 2019 Jul 4;64(13):135013. doi: 10.1088/1361-6560/ab20d9.

An image-guided precision proton radiation platform for preclinical *in vivo* research.

Ford E, Emery R, Huff D, Narayanan M, Schwartz J, Cao N, Meyer J, Rengan R, Zeng J, Sandison G, Laramore G, Mayr N.

Phys Med Biol. 2017 Jan 7;62(1):43-58. Epub 2016 Dec 14

