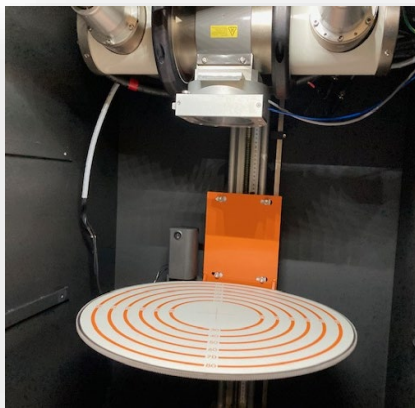


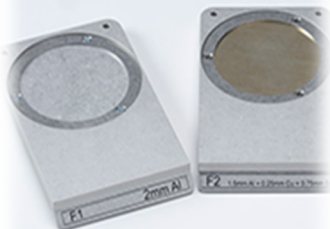
X-RAD Biological Irradiator

The [X-Rad 320](#) is a self-contained x-ray system designed to deliver a precise radiation dosage to biological samples including cell lines and rodents. The maximum output is 320kV with a maximum current of 30mA.

- Defined dose of x-rays can be delivered to biological samples (cell lines and rodents).
- The chamber contains an adjustable multi-position shelf with rotating platform to provide uniform radiation administration.
- Beam hardening filters are available to ensure low energy photons are filtered out delivering only desired photons to the specimen.
- DLARIC accommodates irradiation of immunodeficient mouse models.
- Authorized DLARIC staff will perform all the irradiation of all biological samples.



Adjustable multi-position shelf



Beam hardening filters



X-RAD -320 Irradiator

Primary Applications:

- **Cancer models:**

- Inducing localized tumors or pre-irradiating tissues to mimic clinical settings
- Testing radiation therapies (alone or with radiosensitizers)

- **Bone marrow ablation:**

- For hematopoietic stem cell transplantation

- **Immunosuppression:**

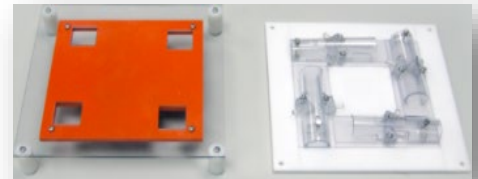
- In xenograft models (e.g., to accept human cells/tissues)

- **Radiation toxicity studies:**

- Study of radiation-induced damage to tissues/organs

- **Radioprotector testing:**

- Evaluating protective agents or mitigators against radiation effects



All irradiation exposure is performed by DLARIC staff, during the hours of operation of the Imaging Core.