Raycision

SHARP 1000

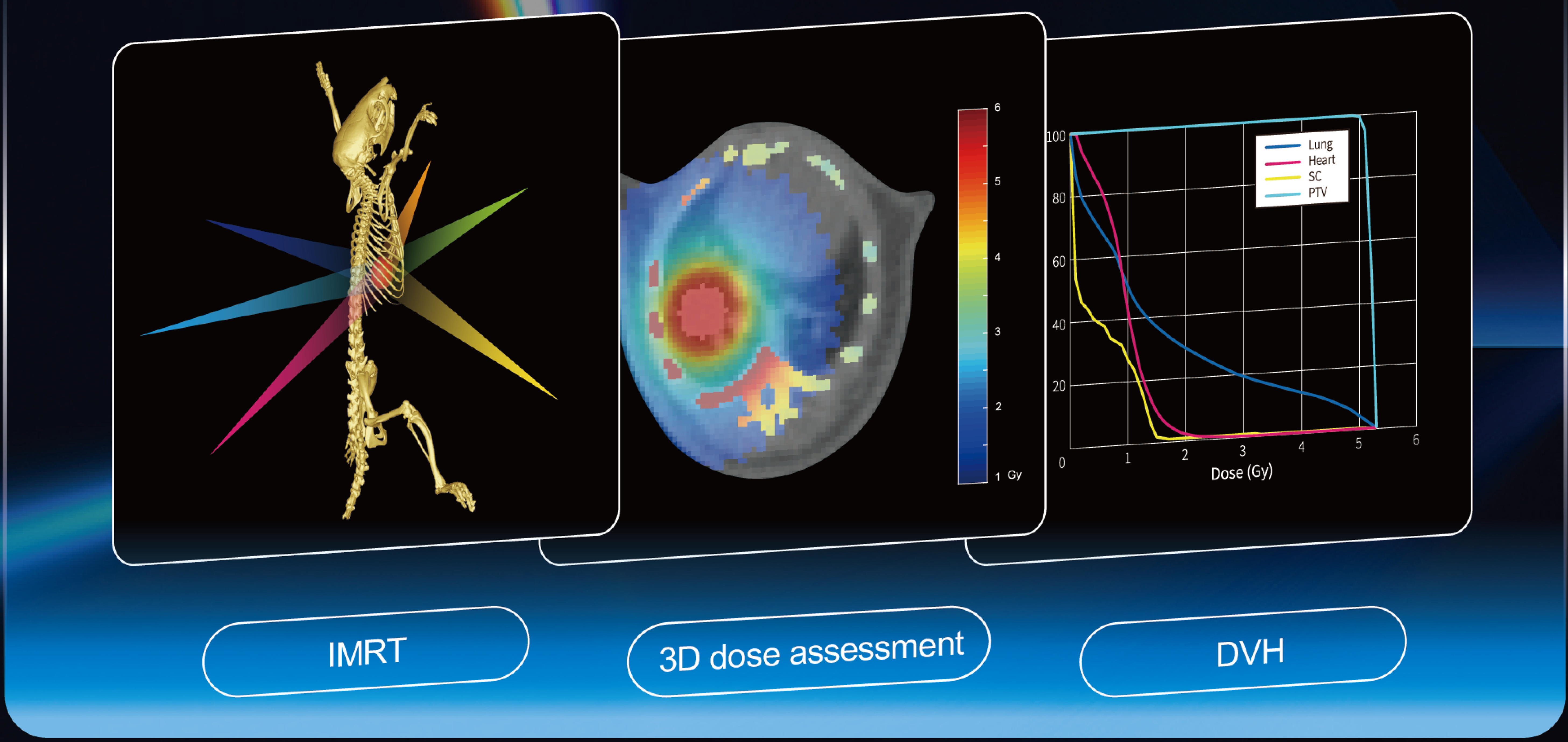
MULTIMODALITY IMAGE GUIDED
PRECISION RADIATION SYSTEM

STATE-OF-THE-ART 3D MULTIMODALITY IMAGE GUIDED PRECISION RADIATION SYSTEM

- Precise Image Guidance
- Raycision Treatment Planning
- Outcome Evaluation
- Patented Software
- Ultra-High Dose Rate
- Safety Compliance

RAYCISION PRECLINICAL ADVANCED IMAGING AND RADIATION SOLUTIONS

ALL-IN-ONE

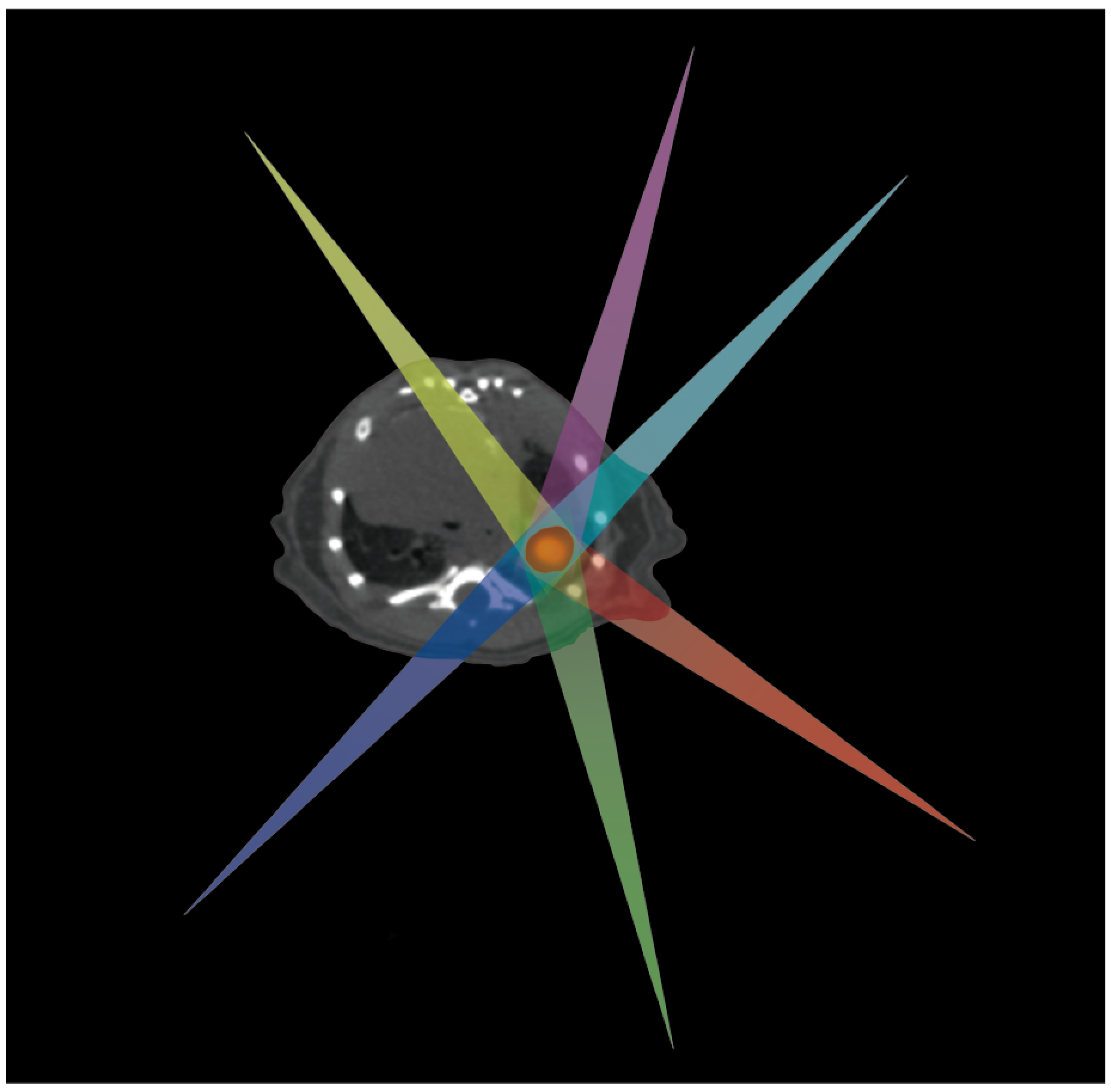


STATE-OF-THE-ART 3D MULTIMODALITY IMAGE GUIDED PRECISION RADIATION SYSTEM

- **Multimodal Image Guidance:** By combining micro-CT and optical molecular imaging, the SHARP 1000 presents unprecedented tumor localization and targeting accuracy.
- **Conformal Treatment Planning:** Patented treatment planning software using GPU-accelerated Monte Carlo dose algorithms with gold standard accuracy and sub-minute speed.
- **Quantitative Outcome Evaluation:** Multimodal images allow for quantitative evaluation of radiation therapy or combined therapy.

“ MOLECULAR IMAGING ENABLED CONFORMAL RADIATION TREATMENT AND QUANTITATIVE RESPONSE EVALUATION ”

Benchmarking clinical radiation therapy



IMRT

- **Intensity-modulated radiation therapy (IMRT)**

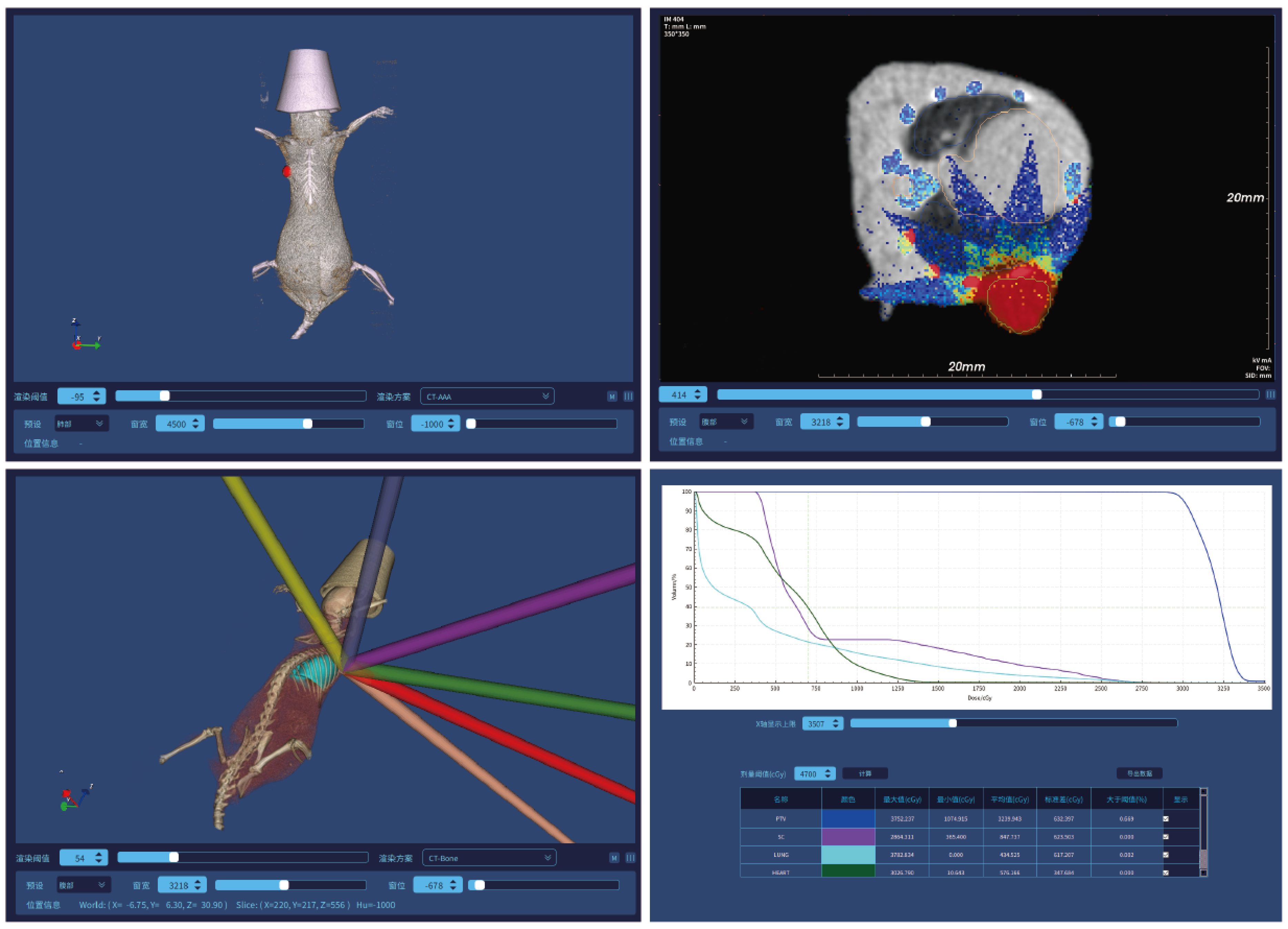
  IMRT uses multiple smaller beams at different angles to deliver high doses of radiation to a tumor while minimizing the dose to healthy tissue.

- **Volumetric-modulated arc therapy (VMAT)**

  VMAT delivers radiation using a cone beam that continuously rotates around the patient.

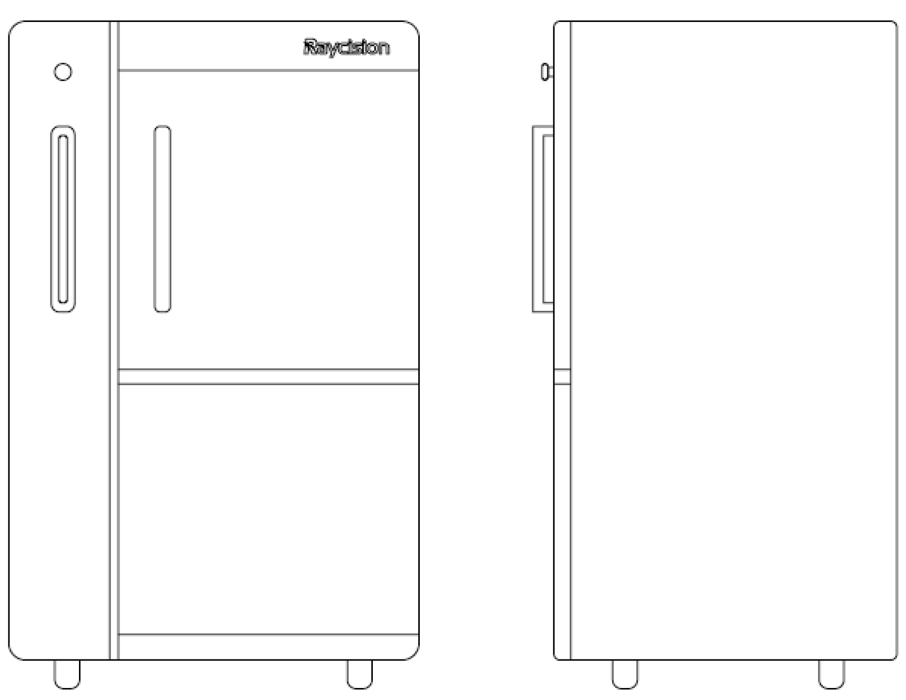
Patented software for image guided radiation therapy

- **Multimodal image registration**
- **AI-powered organ contouring**
- **Tumor target identification**
- **2D and 3D image rendering**
- **Ultra-high dose rate (UHDR)**
- **Conformal treatment planning**
- **Quantitative outcome evaluation**



SHAPR 1000	
Safety compliance	Self-shielding design,surface dose-rate of 0.2 μSv/h.
Max. X-ray tube voltage	225 kV
Max. power	4500 W
Focal spot	d=1.2/5.5 mm
Dose rate	0.01-100 Gy/min
Radiation direction	0°/90°
X-ray detector size	⩾20 cm*20 cm
CT image resolution	⩽50 μm
CT scan dose	⩽5 mGy
CT FOV	⩾10x10 cm^2
3D optical molecular imaging	Included
Optical image FOV	13x13 cm^2
Quantum efficiency of CCD	⩾90%
CCD pixel size	13 μm×13 μm
Optical wavelength	300 nm-1000 nm
Number of excitation / emission filters	12/6
Molecular imaging accuracg	⩽300 μm
Target quantification	Depth, volume, and intensity
Registration of CT and optical images	Included
Specimen stage	X/Y/Z and rotation
Stage movement accuracy	⩽10 μm
Laser positioning accuracy	⩽0.5 mm
Dose uniformity	⩾95%
GPU-accelerated Monte Carlo dose algorithm	Included
AI-powered automatic organ segmentation	Included
Treatment plan assessment	3D dose distribution and 3D DVH
Optional upgrades	Ultra-high dose rate (UHDR) radiotherapy module

Product size



Dimensions: 110 cm (L) × 99 cm (W) × 190 cm (H)