XCELL® TomoRad™

Tomosynthesis-Guided Radiation

Faster imaging

Faster treatments

Accurate dosing

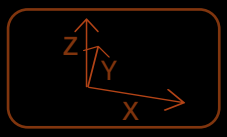
KUBTEC®
SCIENTIFIC

XCELL® TomoRad™

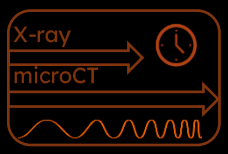
The first Tomo-Guided Radiotherapy system providing:

- Tomo-imaging and optional bioluminescence imaging for accurate beam targeting

- Advanced Treatment Planning with Rapid Dose Estimation
- Monte Carlo algorithm



- Software-controlled X, Y, Z stage for easy and exact sample positioning



- Significantly lower sample radiation exposure than microCT
- More economical price point

- Easier installation; can fit through a standard size door

Faster Imaging, Faster Treatments

>50% faster than microCT

Image Acquisition • Image Processing • Radiation Treatment

Accurate dosing: 1 mm Tomo-3D image slices

Faster Treatments with Mag Mode™

Unique, ultra-fast dose delivery method* that automatically positions the sample near the tube for the highest dose in the shortest time – without the space and expense of a proton beam generator.

*Patent pending

TOMOSYNTHESIS: 3D X-ray Imaging

Tomosynthesis is a distinct form of tomography that uses multiple X-ray images taken from different angles, and reconstructs them into a three-dimensional image requiring significantly lower sample radiation exposure than microCT.

In vivo :

- Develop new treatment plans and dose strategies to target tumors while protecting healthy tissue.
- Study effects of various dose strategies on healthy tissues and methods to mitigate such effects.

In vitro :

- Modify cells via irradiation for cell therapy/Immune-therapy treatment research.

3D X-ray Tomosynthesis can be used to align the target with the collimator via imaging for accurate dosing.

Or create feeder cells for cell expansion to support research in CAR-T or NK cell therapies.

Both applications require little dosimetry training/no specialized knowledge is needed.

Generate robust data and reproducible results that support translation to clinical trials, either as part of radio-therapy animal studies or as cell-based treatments.

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- 225 kV 4W
- Multiple options for collimation
- Laptop use for remote operation
- Environmental chamber systems
- Image Blender®
- Monitoring ports for temperature, etc.
- Quantitative dosimetry commissioning at installation

XCELL TomoRad is a new class of IGRT system that fills the gap between expensive and overly complicated systems, and basic cabinet X-ray systems that deliver broad treatments.

We make image-guided radiation therapy research systems attainable by more labs, because we know that **brilliance can happen anywhere.**

System Specifications

Exterior size (W x D x H)	63” x 32” x 70”
Interior size (W x D x H)	30” x 29” x 29”
Weight	3650 lbs (1655 kg)
Tube Potential	30-225 kV
Tube Current	Up to 30mA
Power	4000 W
Volumetric Field of View	26 x 30 cm

Cooling System	Water to Air
Software Algorithm	Monte Carlo

Compliant with US FDA reg 21 CFR 1020.40

Accessories

Specimen Turntable
Image Blender
Environmental Chamber Systems
Fixed collimators in various sizes and shapes with Automatic Collimator Recognition
Filters with Automatic Filter Recognition

Optional Features

Bioluminescent Imaging System
Advanced Treatment Planning Software
Independent Dose Verification (dose accuracy)
Beam filter options

Lowering the barrier of entry into precise irradiation

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