SmART-XPS & MuriPlan Comparison

Xstrahl offers two advanced treatment planning system options. **SmART-XPS** is a dedicated radiation planning system for precision image guided small animal radiotherapy research, and is developed by SmART Scientific Solutions BV for use with small animal image guided radiotherapy research platforms. **MuriPlan** is the advanced treatment planning solution developed by Xstrahl. MuriPlan is a preclinical treatment planning platform allowing users to develop and execute treatment plans quickly and easily, to deliver simple or complex beam arrangements in a clinically relevant way.

		SmART-XPS	MuriPlan
User Interface	Intuitive user interface that guides user step-by-step	✓	✓
	Image plane viewing	Custom orthogonal views	Standard orthogonal views
	3D rendering		✓
	Export views to image file	✓	✓
Data Handling	Primary image set	CT	CT
	Data fusion for secondary image data	CT, MR, PET	CT, MR, PET, BLI
	DICOM compatible	✓	✓
	Save and load a previous treatment plan	✓	✓
	Use of a reference treatment plan		✓
Segmentation	Default conversions scheme	Multiple	Can be loaded from file
	Density override	✓	
	Advanced contouring tools	✓	✓
Beam Planning	Drag an drop movement of isocenter	✓	✓
	Drag and drop movement of beam direction	✓	✓
	Couch rotation	Yes, static angle	Yes, dynamic angle
	Variable collimator support	✓	✓
	Arc treatments	Yes, gantry arcs only	Yes, couch and gantry arcs
	Algorithm	Monte Carlo	Monte Carlo and/or Superposition-Convolution
Dose Calculation	Advanced Monte Carlo parameter setting	✓	
	Set Monte Carlo calculation accuracy	✓	✓
	Decoupled dose grid from CT grid	✓	
	Parallelized computation to speed up MC calculation	✓	✓
	Calibrated photon spectra	Multiple	Single
	Isodose curves	Custom	Fixed
Treatment Plan Analysis	Dose color wash	✓	✓
	Dose-volume histograms	Cumulative and differential	Cumulative
	Dose-volume metrics	✓	✓
	Line profiles of CT/dose/MR/PET data	✓	
	Dose re-scaling	✓	
	Direct communication irradiation plan to SARRP CS	✓	✓
System Interface	Direct CBCT acquisition from TPS		✓
	Compatibility with MuriGlo		✓
Operating System		Win10	Win 10

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