

**Accelerator Design, Radiobiology & Quality Assurance,
Brachytherapy & Radiotherapy Verification Imaging**

Julian Bloom Lecture Theatre – Chelsea

Day 1: Tuesday 5th March 2019

08.35 - 08.50	Registration & Coffee	
08.55 - 09:00	Welcome & Introduction	Ms Margaret Bidmead
09.05 - 09.55	Medical Electron Linear Accelerators	TBA
10.00 –	Discussion	
10.15 - 11.15	Quality Control of Linacs	TBA
11.20	Refreshments	
11.40 - 12.40	Production of a Clinical Beam	TBA
12.45 – 13.30	Multileaf Collimators: Characteristics & Commissioning	TBA
13.30	Lunch	
14.25 – 14.55	Introduction to Cell Biology	TBA
15.00 – 16.00	Tumour Cell Radiobiology	TBA
16.05	Refreshments	
16:25 – 17.25	Fractionation & Iso-effect & Gaps in Radiotherapy	TBA
17.30 - 18.05	Tomotherapy	TBA
19.00	Course Meal	

Day 2: Wednesday 6th March 2019

09.00-10.00	Accuracy and Quality in Radiotherapy: An overview	TBA
10.05-10.35	Quality Assurance In Clinical Trials	TBA
10.40	Refreshments	
11.00 – 11.50	Radiobiology of Normal Tissues	TBA
11.55-12.55	Practical use of Radiobiology in Treatment Planning	TBA
13.00	Lunch	
14.00-14.30	Cyberknife	TBA
14.35-15.05	kV X ray Units	TBA
15.10 - 16.05	Modelling the probability of Tumour Control (TCP)	TBA
16.10	Refreshments	
16.30-17.15	Modelling Normal Tissue Complication Probability	TBA

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Day 3: Thursday 7th March 2019

08.30 – 09.25	Clinical Indication for Brachytherapy	TBA
09.30 – 10.00	Intracavitary Dosimetry	TBA
10.05 – 10.45	Calibration and QA of Brachytherapy Sources	TBA
10.50	Refreshments	
11.10 – 12.05	Gynaecology Cancers	TBA
12.10 – 13.05	3D Image based Brachytherapy Planning	TBA
13.10	Lunch	
14.10 – 14.55	Transperineal Prostate Brachytherapy	TBA
15.00 – 15.45	The Radiobiology of Brachytherapy	TBA
15.50	Refreshments	
16.10 – 16.55	Radiation Protection Issues in Brachytherapy	TBA

Day 4: Friday 8th March 2019

09.00 – 09.45	Image Handling in Radiotherapy	TBA
09.50 – 10.35	IGRT Techniques	TBA
10.40	Refreshments	
11.00 – 11.45	Image Guidance in Radiotherapy: Accuracy, Frequency & Dose	TBA
11.50 – 12.40	Errors & Margins in Image Guided Radiation Therapy	TBA
12.45	Lunch	
13.45 – 14.35	EPID Imaging in Routine Practice, Dosimetry & Quality Control	TBA
14.40 – 15.25	Radiation Protection in External Beam Radiotherapy	TBA
15.30	Refreshments	
15.55 – 16.40	MR Guided Radiation Therapy: Treatment Devices	TBA
16.45 – 17.15	Research & Development Opportunities in RT	TBA
17.20	Cheese & Wine Evening	

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**Day 5: Saturday 9th March 2019
Workshop Sessions**

**Practical Workshop Sessions
Assembly Point: Radiotherapy Basement at 9.00 am**

	09.15	09.50	10.25	11.00	11.30	12.05
Basic QA Flatness & Symmetry Carlyle	1	2	3		4	5
MLC, EPID & QA Brunel	2	3	4		5	1
Brachytherapy Treatment Planning – CT and MRI image based Master Plan	3	4	5		1	2
Iodine seeds & ultrasound for Prostate and examples	4	5	1		2	3
Radiotherapy Patient Waiting Area HDR, QA & Source HDR Treatment Suite	5	1	2		3	4

**Evaluation forms will be collected during the refreshment break at 11am.
Please have them ready. Thank you**

End of the Course