

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

Day 1: Tuesday 8th March 2022

08.25	Registration	
08.55 - 09:00	Welcome & Introduction	
09.05 - 09.55	Medical electron Linear Accelerators	Dr Hamish Porter
10.00 – 10.55	Quality Control of Linacs	Mr Rollo Moore
11.00	Refreshment break	
11.30 – 12.10	Production of a Clinical Beam	Professor Philip Mayles
12.15 – 12.55	Multileaf Collimators: Characteristics & Commissioning	Mr David King
13.00	Lunch break	
14.00 – 15.00	Radiotherapy Fractionation	Dr Navita Somaiah
15.00 – 15.30	Managing Gaps	Dr Navita Somaiah
15.35	Refreshment break	
15.55 – 16.25	Extremes I: kV X-ray Units	Mr Matthew James
16.30 – 17.25	Accuracy and Quality in Radiotherapy: An overview	Professor Philip Mayles
18.00	Course meal	

Day 2: Wednesday 9th March 2022

09.00 - 09.40	Extremes II: Cyberknife	Mrs Philippa Hackett
09.45 – 10.45	Practical use of Radiobiology in Treatment Planning	Professor Philip Mayles
10.50	Refreshment break	
11.10 – 11.45	Introduction to Cell Radiobiology	Dr Alex Backshall
11.50– 12.45	Tumour Cell Radiobiology	Professor Alan Nahum
12.50	Lunch break	
13.55 – 14.35	Radiobiology of Normal Tissues	Ms Rita Simoes
14.40 – 15.35	Modelling the probability of Tumour Control (TCP)	Professor Alan Nahum
15.40	Refreshment break	
16.00 – 16.55	Modelling Normal Tissue Complication Probability	Dr Colin Baker
17.00 – 17.45	Extremes III: Tomotherapy	Dr Andrew Dumbill

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Day 3: Thursday 10th March 2022

09.00 – 09.40	Clinical Indications for Brachytherapy	Mrs Caroline Chapman
09.45 – 10.15	Intracavitary Dosimetry	Ms Margaret Bidmead
10.20 – 10.45	Calibration and QA of Brachytherapy Sources	Dr Kate Roberts
10.50	Refreshment break	
11.15 – 12.05	Gynaecology Cancers	Dr Alexandra Taylor
12.10 – 13.10	3D Image based Brachytherapy Planning	Professor Christian Kirisits
13.15	Lunch break	
14.15 – 14.50	Transperineal Prostate Brachytherapy	Mr Peter Bownes
14.55 – 15.40	The Radiobiology of Brachytherapy	Professor Roger Dale
15.45	Refreshment break	
16.00 – 16.40	Radiation Protection Issues in Brachytherapy	Mr Jim Thurston/ Ms M Bidmead

Day 4: Friday 11th March 2022

09.00 – 09.40	IT Essentials for Radiotherapy	Mr Richard Trouncer
09.45 – 10.40	Image Handling in Radiotherapy	Professor Marcel van Herk
10.45	Refreshment break	
11.05 – 12.00	Errors & Margins in Image Guided Radiation Therapy & SBRT	Professor Marcel van Herk
12.05 – 12.45	IGRT Techniques	Mr David Bernstein
12.50	Lunch break	
13.55 – 14.35	Radiation Protection in External Beam Radiotherapy	Mr Jim Thurston/ Dr M Thomas or Natalie
14.40 – 15.35	Image Guidance in Radiotherapy: Accuracy, Frequency & Dose & MPE Trials	Dr Vibeke Hansen
15.40	Refreshment break	
16.00 – 16.30	Quality Assurance In Clinical Trials	Mrs Olivia Naismith
16.35 – 17.15	MR Linacs	Dr Simeon Nill
17.20	Cheese & Wine	

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**Day 5: Saturday 12th March 2022
Workshop Sessions
Practical Workshop Sessions
Assembly Point: Radiotherapy Basement at 9.00 am**

	09.15	10.05	10.50	11.15	12.05
Basic QA	1	2		3	4
Franklin Brachytherapy Treatment Planning – CT and MRI image based	2	3		4	1
Master Plan Iodine seeds & ultrasound for Prostate and examples	3	4		1	2
Beige Planning HDR, QA & Source Calibration	4	1		2	3
HDR Treatment Suite					

**Evaluation forms will be collected at the end of the course
Thank you**