

NPL PPRIG Proton Therapy Physics Workshop 2019

DAY 1: 7th February

09 00	Arrival, Registration & Breakfast	
09 30	Welcome & Setting the Scene	Karen Kirkby & Russell Thomas
	SESSION 1: Facilities and Dosimetry	
09 45	Invited talk: Update on the UCLH Proton Project	Andrew Poynter
10 05	Invited talk: Update on The Christie Proton Therapy Centre	Imran Patel
10 25	Coffee	
10 45	Update: Update on establishing the new primary-standard for proton dosimetry in the UK	Rusell Thomas
11 05	Dosimetry audit based on end-to-end testing with alanine detectors in proton beam therapy.	Antonio Carlino
11 20	Characterisation of the LHCb VELO detector module as a non-invasive, online beam monitor for medical accelerators	Roland Schnuerer
11 35	Ionisation chamber intercomparisons in a low-energy passively-scattered and two high-energy pencil beam scanning proton beams	Ana Lourenco
11 50	Measurement of secondary neutrons around proton therapy facilities	Alberto Boso
12 05	Discussion	
12 35	Lunch & poster session	
	SESSION 2: Radiobiology	
13 35	Invited talk: The Role of Lipid Metabolism in Radiation Resistance	João Seco
14 05	Biologically Relevant Predictions for Proton Beam Therapy from In-Silico Modelling and the Relevance to Treatment Planning	Edward Smith
14 20	Is averaged LET a sufficient surrogate for proton radiobiology?	Stephen McMahon
14 35	Prescription dose optimisation for specific Organ-at-risk based on radiobiology model	Yaru Pang
14 50	USP6 and PARP-1 play key roles in the cellular response to complex DNA damage induced by high-LET protons	Katie Nickson
15 05	Invited talk: Is there clinical evidence for a proton RBE exceeding 1.1?	Harald Paganetti
15 35	Discussion	
16 00	Coffee	
	SESSION 3: Technologies	
16 20	Invited talk: Update on the Rutherford Cancer Centres UK network of proton therapy centres	John Pettingell
16 40	Update: Linac for Image Guided Hadron Therapy (LIGHT) system and testing	Jonathan Farr
17 00	Invited talk: Looking through the glass darkly: a personal (and biased) view of the future of proton medical physics	Tony Lomax
17 30	Discussion	

DAY 2: 8th February		
08 40	Arrival and Breakfast	
	SESSION 4: Treatment planning and clinical studies	
09 00	A comparative treatment planning study evaluating the clinical benefit of spot-scanning proton beam collimation	Wouter Wunderink
09 15	Role of Monte Carlo simulations in proton therapy planning in different tumour sites	Francesca Fiorini
09 30	Photon vs proton therapy for reduction of cardiac toxicity in locally advanced lung cancer	Suliana Teoh
09 45	Proton beam therapy for Hodgkin Lymphoma - reductions in cardiovascular and second cancer risks: Which patients benefit the most?	Georgios Ntentas
10 00	Discussion	
10 15	Coffee	
	SESSION 5: Adaptive radiotherapy and imaging	
10 30	Invited talk: The power of the shower: Does integral dose matter?	Tony Lomax
11 00	The impact of photon counting CT on proton therapy dose calculation: a Monte Carlo study	Arthur Lalonde
11 15	Predicting inter-fractional anatomical change in head and neck cancer using diffeomorphic image registration	Megan Wilson
11 30	A New Prompt Gamma-Ray Detection System for 3D Range Verification in Proton Beam Therapy	Costanza Panaino
11 45	Invited talk: Uses and challenges for deformable image registration in radiotherapy	Jamie McLelland
12 15	Lunch & poster session	
13 05	Invited talk: Concepts and future directions of on-line adaptive proton therapy	Harald Paganetti
13 35	Discussion	
	SESSION 6: Other modalities	
13 50	Invited talk: Update on the MedAustron Ion Therapy Centre and outlook to the carbon ion delivery	Markus Stock
14 20	Proton-Boron Capture Therapy (PBCT): enhancing clinical proton biological effectiveness by a nuclear fusion reaction	Lorenzo Manti
14 35	Invited talk: A novel way of delivering light ion therapy... update on developments in Boron Neutron Capture Therapy	Stuart Green
14 55	Coffee	
15 10	Invited talk: Could very high energy electron (VHEE) beams become a new radiotherapy modality?	Anna Subiel
15 30	Feasibility studies of strongly focused Very High Energy Electron beams for radiotherapy	Karolina Kokurewicz
15 40	Invited talk: Future Research and Collaboration Discussions (<i>title TBC</i>)	Karen Kirkby
16 10	Discussion	
16 30	End of workshop: closing remarks	