

# Clinical Brachytherapy Workshop

Melbourne August 23<sup>rd</sup> – 26<sup>th</sup> 2018



<b>Thursday August 23<sup>rd</sup></b>	
8:30 – 9:00 am	<b>Registration</b>
9:00 – 9:10 am	Introduction
9:10 – 9:40 am	<b>THURS_1_Millar</b> Why brachytherapy, from Manchester and Paris to the current clinical practice A/Prof Jeremy Millar 30 mins
9:40-10:15am	<b>THURS_2_Kron</b> Comparison of Techniques Prof Tomas Kron 35 mins
Morning Tea: 10:15 -10:35 am	
10:35-11:35 am	<b>THURS_3_Haworth</b> Introduction to radiation safety and protection; Protection principles and procedures, emergency procedures, source storage and security, biological effects of radiation and current dose limits. Prof Annette Haworth 60 mins
11:35 am – 12:15pm	<b>THURS_4_Panettieri</b> Radiobiology for brachytherapy Dr Vanessa Panettieri 40 mins
Lunch: 12:15 – 12:50 pm	
12:50-1:20 pm	<b>THURS_5_Haworth</b> Imaging for brachytherapy, including principles of image reconstruction, catheter/appliator delineation, patient anatomy, image distortion/artefacts Prof Annette Haworth 30 mins
1:20 – 2:00 pm	<b>THURS_6_Smith</b> Principles of treatment planning, optimisation methods and plan checking Mr Ryan Smith 40 mins
2:00 – 2:30	<b>THURS_7_Ramachandran</b> Electronic brachytherapy Dr Prabhakar Ramachandran. 30 mins
2:30 – 3:00	<b>THURS_8_Smith</b> Basic principles of HDR operation and quality assurance Mr Ryan Smith 30 mins
Afternoon tea: 3:00-3:20 pm	
3:20 – 4:00	<b>THURS_9_Graham</b> <b>Clinical applications: Breast:</b> A/Prof Peter Graham Details include: clinical indications, equipment, imaging, QA, and brachytherapy planning technique A/Prof Peter Graham 40 mins
4:00 – 4:30	<b>THURS_10_Chander</b> <b>Clinical applications: intraoperative BT; prostate salvage</b> Dr Sarat Chander Details include: clinical indications, equipment, imaging, QA, and brachytherapy planning technique. 30 minutes
4:30-5:10	<b>THURS_11_Invited Speaker TBA</b> Skin brachytherapy. Details include: clinical indications, equipment and brachytherapy planning technique 40 mins
5:10 – 7:00 pm	<b>Social event</b>

<b>Friday August 24<sup>th</sup></b>	
<b>8:15 – 8:30 am</b>	<b>Registration</b>
8:30 – 9:15 am	<b>FRI_1_Haworth</b> Dose calculation and source specification Prof Annette Haworth 45 mins
9:15 – 10:25 am	Prostate Cancer <b>FRI_2_Matheson &amp; Smith</b> <b>Prostate Cancer (LDR)</b> 9.15 - 9.50am LDR Clinical Component (BM) (35 minutes) 9.50 - 10.25am LDR Technical Component (RS) (35 minutes)
Morning Tea: 10:25 – 10:45 am	
10:45-11:35am	<b>FRI_3_Matheson &amp; Smith</b> <b>Prostate Cancer (HDR)</b> 10.45 - 11.10am HDR Clinical Component (BM) (25 minutes) 11.10 - 11.35am HDR Technical Component (RS) (25 minutes)
11:35am- 12:15pm	<b>FRI_4_ Invited Speaker TBA</b> <b>Clinical applications: Head and neck, sarcoma, intraluminal:</b> . Details include: clinical indications, equipment, imaging, QA, and brachytherapy planning technique. 40 minutes
Lunch: 12:15-1:00pm	
1:00-1:45pm	<b>FRI_5_ Invited Speaker TBA</b> <b>Clinical applications: Head and neck, sarcoma, intraluminal:</b> . Details include: clinical indications, equipment, imaging, QA, and brachytherapy planning technique. 45 minutes
1:45 – 2:15	<b>FRI_6_Downes</b> <b>Clinical applications: Eye plaques and beta sources:</b> Simon Downes Details include: clinical indications, equipment, imaging, QA, and brachytherapy planning technique. 30 minutes
2:15-3:15pm	<b>FRI_6_Do</b> <b>Gynaecological Cancers: Clinical component :</b> Dr Viet Do Clinical indications, Patterns of care, Principles of treatment, Target definition and image interpretation, prescription, protocol and technique, Clinical results GEC-ESTRO recommendations (clinical) (60 mins)
Afternoon Tea: 3:15-3:30pm Cath to chair and explain process for Saturday workshops	
3:30-4:30pm	<b>FRI_7_vanDyk</b> <b>Technical Component:</b> Ms Sylvia Van Dyk GEC-ESTRO recommendations (technical) Imaging -Ultrasound (60 mins)
4:30-4:45pm	Questions & discussion

<b>Saturday August 25<sup>th</sup></b>			
	<b>Group 1</b>	<b>Group 2</b>	<b>Group 3</b>
A. Haworth & C, Beaufort to assist across all groups			
8:30-9:45 am	Contouring –prostate and gynae  Dr Joseph Bucci & Dr Viet Do Hayley Mack	1.HDR unit operation (40 mins): User and emergency procedure training 2.General BT equipment overview (30 mins) Paul Anderson & Sylvia van Dyk	Planning: Prostate HDR  Dr B Matheson Ryan Smith Steph Miller Kirsten Bell
Morning tea 9.45-10am			
10:00-11.15am	Planning: Prostate HDR	Contouring –prostate and gynae	1.HDR unit operation (40 mins): User and emergency procedure training 2.General BT equipment overview (30 mins)
11:15am - 12:30pm	1.HDR unit operation (40 mins): User and emergency procedure training 2.General BT equipment overview (30 mins)	Planning: Prostate HDR	Contouring –prostate and gynae
Lunch 12:30-1pm			
	<b>Group 1</b>	<b>Group 2</b>	<b>Group 3</b>
1:00-2:15pm	Stepper Stabiliser set-up Mock volume study Practise needle insertion Dr B Matheson Cath Beaufort Hayley Mack	Planning: Gynaecological planning Vault and Cervix Dr Viet Do Sylvia van Dyk Kirsten Bell Marg Garth Amanda Oates	Planning: Prostate LDR Dr Joseph Bucci Ryan Smith Steph Miller
2:15-3:30pm	Planning: Prostate LDR	Stepper Stabiliser set-up Mock volume study Practise needle insertion	Planning: Gynaecological planning Vault and Cervix
Afternoon tea 3:30-3:45pm			
3:45-5:00pm	Planning: Gynaecological planning Vault and Cervix	Planning: Prostate LDR	Stepper Stabiliser set-up Mock volume study Practise needle insertion

## Sunday August 26<sup>th</sup> : Exam Preparation and Advanced Planning Clinic

8:45-9:00	Introduction to program, evaluation forms, acknowledgements Physicists to assemble here, sign in, pick up evaluation forms. Annette to escort to radiotherapy		
9:00 – 10:00 am	Group 1 (RO, RT): Advanced brachytherapy – clinical applications, clinical trials, case discussions –	Group 2 (Physics): <ul style="list-style-type: none"> <li>◦ Dosimetry formalism for physics</li> <li>◦ Dose calibration (theory)</li> </ul> TEAP written exam preparation (S. Downes, A. Haworth, R. Smith, A. Perkins, V. Panettieri )	
10:00- 10:30 am Morning tea.			
10:30 am- 12:30 pm	Session 2. Group 1: Phase I and II RANZCR case studies and exam preparation (A/Prof Jeremy Millar, Dr C Lapuz)	Group 2 (Physics): TEAP exam preparation,  (S. Downes, A. Haworth, R. Smith, A. Perkins, V. Panettieri )	Group 3 (RTs) Advanced treatment planning (S. van Dyk, C. Beaufort)
12.30pm	Finish for ROs and RTs		
12:30- 1:00pm	Lunch for Physics		
1:00- 4:00pm	Practical demonstration of in vivo brachytherapy at the Alfred Hospital Further exam preparation for MP. Practical & theory training sessions: <ul style="list-style-type: none"> <li>◦ TPS commissioning</li> <li>◦ Applicator commissioning</li> <li>◦ Ultrasound unit calibration</li> <li>◦ HDR source calibration using well chamber &amp; cylindrical chamber</li> <li>◦ Other – on request</li> </ul> S. Downes, A. Haworth, R. Smith, V. Panettieri, A. Perkins		