

# Image Guided Radiation Therapy

## Education Course



*putting innovation to work*

May 12–14, Toronto, Canada



UNIVERSITY OF  
TORONTO



**IGRT**

Radiation Medicine Program  
Princess Margaret Hospital



Princess Margaret Hospital  
University Health Network

## FRIDAY MAY 12, 2006

Moderator: Nicole Harnett MRT(T)

8:00–8:30 Registration and Breakfast<sup>‡</sup>

8:30–8:45 Welcome and Introductions

### Session One Image Guidance – The Tools and What We Can Do with Them

Discussant: Harald Keller PhD

8:45–9:15 Image Guidance – Integration into Clinical Practice  
Doug Moseley PhD

9:15–9:30 Questions

9:30–10:00 Tools for Image Guidance  
Michael Sharpe PhD

10:00–10:15 A Case Study – Prostate  
Vickie Kong MRT(T)

10:15–10:30 Questions

10:30–10:45 *Nutrition Break*

10:45–11:25 Cone-beam CT Primer  
David Jaffray PhD

11:25–11:40 A Case Study – Sarcoma  
Amy Parent MRT(T)

11:40–11:50 Questions

11:50–12:20 PMH Tours

12:15–1:00 *Lunch* *Cobalt Lounge (2B)*

1:15–1:45 Achieving the Many Dimensions of Quality: from devices to processes  
Jean-Pierre Bissonnette PhD

1:45–2:00 Questions

### Session Two Introducing IGRT: A Site-Based Approach

Meet the team, hear the rationale and learn about the process at PMH.

2:00–3:30 Part #1

Image Guided Radiation Therapy in Lung Cancer  
David Payne MD, Tom Purdie PhD, Anita Varma MRT(T)

3:30–3:45 *Nutrition Break*

3:45–5:15 Part #2

Image Guided Radiation Therapy in Prostate Cancer  
Charles Catton MD, Tim Craig PhD, Elizabeth White MRT(T)

5:15–7:00 *Wine and Cheese Reception* *Pencer Centre (18th floor)*

<sup>‡</sup>All sessions and events of the course are in the Red Room (1B-615) unless otherwise indicated.

## SATURDAY MAY 13, 2006

Moderator: Pamela Catton MD

8:00–8:30 Breakfast

### Session Three Practical Considerations – Systems and Processes

Discussant: Charles Catton MD

8:30–9:00 Registration and Fusion  
Doug Moseley PhD

9:00–9:10 Questions

9:10–9:50 Treatment Planning and Margin Design  
Tim Craig PhD

9:50–10:00 Questions

10:00–10:15 *Nutrition Break*

10:15–10:35 Correction Strategies for Guidance  
Harald Keller PhD

10:35–10:45 Questions

10:45–11:05 Guidance Motion Management – 4DCT and CBCT  
Doug Moseley PhD

11:05–11:15 Questions

### Session Four IGRT Issues in Action

Experienced practitioners will illustrate how various clinical factors influence the application of image guidance in practice.

11:15–12:15 New Information Reforming Clinical Practice  
Charles Catton MD, Amy Parent MRT(T)

12:20–1:00 *Lunch* *Pencer Centre (18th floor)*

1:00–2:05 Image Guided Radiation Therapy in Liver Cancer  
Laura Dawson MD, Cynthia Eccles MRT(T)

### Session Five Live Demonstrations and Practical Exercises

Cobalt Lounge (2B)

2:10–4:10 Lung and Prostate Image Guidance Unit 7

Routine Quality Assurance Unit 8

Assessing Tumour Motion Using 4DCT CT Simulator 1

Matching Exercise Skills Lab

4:10–4:20 *Nutrition Break*

4:20–4:50 Discussion Groups  
Charles Catton MD, Amy Parent MRT(T), Jean-Pierre Bissonnette PhD

4:50–5:00 Wrap Up  
Pam Catton MD

6:30pm *Dinner* *Oro's, 45 Elm Street*

## SUNDAY MAY 14, 2006

Moderator: David Jaffray PhD

8:00–8:30 Breakfast

### Session Six Looking Forward

8:30–9:30 Now What?  
Small group exercise  
Gabrielle Kane MB

9:30–10:00 Strategies and Tactics for IGRT  
David Jaffray PhD, Elizabeth White MRT(T)

10:00–10:15 *Nutrition Break*

### Session Seven Exploring the Frontiers of Image Guidance

10:15–10:30 Exciting Opportunities in Radiation Oncology  
David Jaffray PhD

10:30–10:45 IGRT and Palliative Radiation Therapy  
Rebecca Wong MD

10:45–11:00 The Role of Deformable Image Registration  
Michael Sharpe PhD

11:00–11:15 Adaptive Radiation Therapy Planning  
Michael Sharpe PhD

11:15–11:30 MRI for Adaptive Radiotherapy  
Cynthia Ménard MD

11:30–11:45 Comments & Discussion

11:45–12 noon Closing Remarks  
David Jaffray PhD

