

# 3D Printing in Radiotherapy

Tuesday 21<sup>st</sup> May – NPL, London  
Morning

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|---------------|---|
| 09:00 – 09:25 | Welcome and Introductions<br>Conor McGarry and James Burnley  |
| 09:25 - 09:45 | <i>Point-of-care 3D printing at the Royal Brisbane &amp; Women's Hospital</i><br>Scott Crowe, Royal Brisbane and Women's Hospital                     |
| 09:45 - 10:00 | <i>The Introduction of 3D Printing Technologies to a Radiotherapy Physics Service at Swansea</i><br>Rhys Jenkins, Swansea Bay University Health Board |
| 10:00 - 10:15 | <i>Improving patient experience with surface scanning for a printed mould</i><br>Susan Barley and Ellen Dear, GenesisCare                             |
| 10:15 - 10:25 | <i>Producing Low Melting Point Alloy Masks with 3D Printing</i><br>John Mills, Print Easy Acrylic Shells  |
| 10:25- 10:55  | <b>Break</b>  |

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| 10:55 - 11:15 | <i>3D Printed Bolus for H&amp;N Treatments</i><br>Jessica Woodward, University College London<br>Hospitals NHS Foundation Trust  |
| 11:15 - 11:30 | <i>Clinical experience of the first 120 patients treated with 3D printing-enabled bolus at Northampton General Hospital</i><br>Steven Stibbs, Northampton General Hospital |
| 11:30 - 11:55 | <b>Lightning Session - Lessons Learned from Bolus</b>  |
| 11:55 - 12:25 | <b>Interactive Session</b>   |
| 12:25 - 13:25 | <b>Lunch</b>   |

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Afternoon

|               |   |
|---------------|---|
| 13:25 - 13:50 | <i>Costs and Benefits of 3D Printing in the Clinic</i><br>Tanya Kairn, Queensland Health  |
| 13:50 - 14:05 | <i>Advanced 3D-printing of static and dynamic phantoms applied in radiotherapy</i><br>Roua Abdulrahim, Maastricht University<br><b>- on behalf of Didier Lusterms, Maastricht University</b>                        |
| 14:05 - 14:15 | <i>A 3D-printed adaptable anatomical phantom for end-to-end testing of online adaptive radiotherapy for cervical cancer based on clinical patient geometry</i><br>Matt Jones, The Royal Surrey NHS Foundation Trust |
| 14:15 - 14:25 | <i>Characterization of Flexible Materials for Dynamic Phantoms in Radiotherapy</i><br>Roua Abdulrahim, Maastricht University  |
| 14:25 - 14:55 | <b>Break</b>  |

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| 14:55 - 15:15 | <i>3D Printing for Brachytherapy – A Clinical Perspective</i><br>Amani Chowdhury, Mount Vernon Cancer Centre   |
| 15:15 - 15:30 | <i>Optimisation of GYN brachytherapy by 3D printing of personalised applicators</i><br>Britt Haanen, Maastro Clinic  |
| 15:30 - 15:40 | <i>The production of a bespoke 3D printed HDR skin brachytherapy applicator for the treatment of skin lesions - A case study</i><br>Ahmar Yaseen, Northampton General Hospital |
| 15:40 - 16:10 | <b>Interactive Session</b>   |
| 16:10 - 16:20 | <b>Final Thoughts and Close</b>  |

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Tuesday 21<sup>st</sup> May – NPL, London  
Lightning Talks

## Lightning Session - Lessons Learned from Bolus

*Scripting a Clinical solution for Silicone bolus 3D-printed casts in RayStation v2023B*

Meagan de la Bastide, Imperial College Healthcare NHS Trust

*A Large Area Chest Wall Bolus Print: Problems and Solution*

John Mills, Print Easy Acrylic Shells – **on behalf of Sue Jansen van Rensburg, GenesisCare**

*Printing Shielding and Bolus for Electron Radiotherapy for Skin Cancer*

Frances Lavender, The Royal Marsden NHS Foundation Trust

*3D Printing Bolus For Use Over and Under Head Shells In Head And Neck Planning*

Tim Hosking, North Middlesex Hospital NHS Foundation Trust