

PROGRAMME - April 22 - 24, 2025

Leksell Gamma Knife® Physics 3-day Training Course

Day 1, Tuesday April 22nd		
08:30-08:45	Welcome & Introduction to the Course	Ian Paddick/ Diana Grishchuk
08:45-09:30	Introduction to Leksell Gamma Knife® <ul style="list-style-type: none"> System description CBCT HDMM Workflows 	Ian Paddick/ Diana Grishchuk
09:30-10:30	Introduction to Leksell Stereotactic System <ul style="list-style-type: none"> The Leksell Frame The Vantage Frame The Mask The principle of stereotactic definition 	Ian Paddick / Diana Grishchuk
10:00-10:30	Commissioning Tests for the Vantage Frame	Ian Paddick
10:30-10:45	Coffee / Tea Break	
10:45-12:00	Introduction to Leksell GammaPlan® <ul style="list-style-type: none"> Stereotactic Definition Contouring Treatment planning – shot placement Hands on 	Ian Paddick
12:00-13:00	LUNCH	
13:00-14:00	Leksell Gamma Knife® Technical Demonstration <ul style="list-style-type: none"> Control System Cone Beam CT HD Motion Management Clearance checks Creation of test beam(s) 	Diana Grishchuk
14:00-14:45	Introduction to Leksell Gamma Knife® QA <ul style="list-style-type: none"> CBCT QA Monthly Dose QA 	Diana Grishchuk
14:45-15:00	Coffee / Tea Break	
15:00-15:45	Leksell Gamma Knife® QA <ul style="list-style-type: none"> Focus Precision Tests Film Irradiation HDMM precision Relative Output Factors (using IC and films) Timer accuracy, linearity and error over range of use Transit dose for the largest collimator 	Diana Grishchuk
15:45-16:00	Commissioning Tests for LGP Upgrades	Diana Grishchuk
	End of day	

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Day 2, Wednesday, April 23 rd		
08:00-10:30	Practical Workshop <ul style="list-style-type: none"> Film scanning and analysis Cone Beam CT tests HDMM test 	Diana Grishchuk
10:30-10:45	Coffee / Tea Break	
10:45-11:30	Predictors for Local Control and Toxicity in SRS <ul style="list-style-type: none"> Homogeneity Gradient Volume: The Confounding Factor 	Ian Paddick
11:30-12:30	Quantification and Evaluation of Treatment Plan by Dose Statistics and Conformity Indices <ul style="list-style-type: none"> Established indices The Efficiency Index 	Ian Paddick
12:30-13:30	LUNCH	
13:30-14:00	The Use of Margins in SRS	Ian Paddick
14:00-15:00	Clinical Imaging in SRS <ul style="list-style-type: none"> Optimal scanning sequences 	Ian Paddick
15:00-15:15	Coffee / Tea Break	
15:15-16:00	Hands-on Leksell Gamma Knife® <ul style="list-style-type: none"> Refresh of vascular target planning Practice of vascular target training case 	Ian Paddick
	End of day	

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Day 3, Thursday, April 24 th		
08:00-09:00	Physics Applicable to Leksell Gamma Knife® <ul style="list-style-type: none"> • Calibration and practical physics • Commissioning & Quality Assurance tests • TG 178 	Diana Grishchuk
09:00-10:30	Leksell Gamma Knife® Technical Demonstration <ul style="list-style-type: none"> • Making a mask • Replanning exercises using a phantom • Mask treatment converted to Frame 	Diana Grishchuk
10:30-10:45	Coffee / Tea Break	
10:45-11:45	Hands-on Leksell GammaPlan® <ul style="list-style-type: none"> • Functional treatments Treatment planning practice <ul style="list-style-type: none"> • Treatment planning a single metastasis 	Ian Paddick
11:45-12:30	The Use of CBCT for Frame and Mask <ul style="list-style-type: none"> • Co-registration • Patient stability in mask • Geometry: Frame vs Mask • Mask tips and tricks 	Ian Paddick
12:30-13:30	LUNCH	
13:30-14:45	Imaging for SRS <ul style="list-style-type: none"> • Geometrical distortion in SRS 	Ian Paddick
14:45-15:00	Clinical Imaging in SRS <ul style="list-style-type: none"> • Optimal scanning sequences • Optimal MR imaging techniques - 3T, different manufacturers, CT and PET 	Ian Paddick
15:00-15:15	Coffee / Tea Break	
15:15-15:45	Checking the Treatment Plan <ul style="list-style-type: none"> • A checklist for ensuring error free treatments 	Diana Grishchuk
15:45-16:00	Physics Treatment Support <ul style="list-style-type: none"> • Out of standard workflow clinical scenarios 	Diana Grishchuk
16:00-16:15	End of Course & handing out of Certificates	Ian Paddick
FACULTY	Ian Paddick Diana Grishchuk	