

Clinical Genomics: Fundamentals of Variant Interpretation in Clinical Practice

25-27 January 2023

Workshop programme

Start (GMT)	Finish (GMT)	Duration (mins)	Format	Presenter details
Wedne	sday 25	January 202	23	
12:00	13:00	60 mins		Registration, lunch and networking
13:00	13:10	10 mins		Welcome
			In-person	Scientific Programme Committee: Helen Firth, Cambridge University Hospitals Trust, UK Julia Foreman, EMBL-EBI, UK Alexander Ross, University of Cambridge, UK
13:10	14:00	50 mins		Keynote lecture
				Chair: Caroline Wright, University of Exeter, UK
		45 + 5 Q&A	In-person	Mechanisms of dominance <u>Andrew Wilkie, University of Oxford, UK</u>
14:00	15:00	60 mins		Session 1: Tools for variant interpretation
				Learning objective: Familiarity with core tools available for genomic variant interpretation Chair: Caroline Wright, University of Exeter, UK Moderator: Julia Foreman, EMBL-EBI, UK
14:00	14:30	25 + 5 Q&A	In-person	Resources for genomic medicine Eamonn Sheridan, University of Leeds, UK
14:30	15:00	25 + 5 Q&A	In-person	gnomAD and missense constraint <u>Kaitlin Samocha, Center for Genomic Medicine, Massachusetts General Hospital, USA</u>
15:00	15:45	45 mins		Refreshment break and networking
15:45	16:35	50 mins		Session 2: ACMG framework
				Learning objective: Awareness of the structure and application of the ACMG framework for variant classification Chair: Julia Foreman, EMBL-EBI, UK
		45 + 5 Q&A	In-person	The 2015 and 2023 ACMG/AMP frameworks for variant pathogenicity classification Leslie Biesecker, NIH/NHGRI, USA
16:35	16:40	5 mins		Comfort break
16:40	18:10	90 mins		Session 3: Workshop I - Introduction to DECIPHER
				Learning objective: Ability to independently utilise DECIPHER to assess a genomic variant Chair: Julia Foreman, EMBL-EBI, UK
			In-person	Julia Foreman and DECIPHER team, EMBL-EBI, UK
18:10	19:00	50 mins		Drinks reception
19:00	21:00			Dinner
19:00	23:00			Bar open (card payments only)



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07:30	09:00			Breakfast
09:00	11:00	120 mins		Session 4: Workshop II - Cardiac variant interpretation Learning objective: Understanding of some of the specific aspects of variant interpretation as
				applied to cardiac genetics Chair: Caroline Wright, University of Exeter, UK
09:00	09:30	30 mins	In-person	Introduction James Ware, Imperial College London, UK
09:30	11:00	90 mins	In-person	Workshop James Ware, Imperial College London, UK Julia Foreman, EMBL-EBI, UK
11:00	11:30	30 mins		Refreshment break and networking
11:30	13:00	90 mins		Session 5: Workshop III - Cancer variant interpretation
				Learning objective: Understanding of some of the specific aspects of variant interpretation as applied to cancer genetics Chair: Alexander Ross, University of Cambridge, UK
11:30	12:00	25 + 5 Q&A	In-person	Cancer whole genome sequencing analysis and interpretation <u>Serena Nik-Zainal, University of Cambridge, UK</u>
12:00	13:00	60 mins	In-person	Workshop <u>Marc Tischkowitz, University of Cambridge, UK</u> <u>Alexander Ross, University of Cambridge, UK</u>
13:00	14:00	60 mins		Lunch and networking
14:00	16:00	120 mins		Session 6: Workshop IV: CNVs and SNVs
				Learning objective: Ability to utilise online tools for CNV interpretation Chair: Leslie Biesecker, NIH/NHGRI, USA Moderator: Julia Foreman, EMBL-EBI, UK
14:00	14:30	25 + 5 Q&A	Virtual	Introduction Erin Riggs, Geisinger, USA - virtual presentation
14:30	16:00	90 mins	In-person	Workshop <u>Julia Foreman, EMBL-EBI, UK</u>
16:00	16:30	30 mins		Refreshment break and networking
16:30	17:30	60 mins		Session 7: Mutation and mosaicism
				Learning objective: Understanding of the nature of the mutational process and the aetiology of mosaicism Chair: Nicky Whiffin, University of Oxford, UK
16:30	17:00	25 + 5 Q&A	Virtual	De novo mutation <u>Matt Hurles, Wellcome Sanger Institute, UK - virtual presentation</u>
	17:30	25 + 5 Q&A	In-person	Mosaicism Andrew Wilkie, University of Oxford, UK
17:00				
	18:30	60 mins		Free time
17:00 17:30 18:30	18:30 20:30	60 mins 120 mins		Free time Dinner



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Friday 2	7 Janua	ary 2023		
07:30	09:00			Breakfast
09:00	10:50	110 mins		Session 8: Workshop V - A protein view of variants
				Learning objective: Understanding of the effects of protein coding variants and assessing them from a perspective of protein structure Chair: Kaitlin Samocha, Massachusetts General Hospital, USA
09:00	09:20	15 + 5 Q&A	Virtual	Using CRISPR-based saturation genome editing to improve the diagnosis of neuro-developmental disorders Elizabeth Radford, University of Cambridge/WSI, UK - virtual presentation
09:20	09:50	25 + 5 Q&A	In-person	In silico approaches to modelling the structural effect of protein-altering variation <u>Caroline Wright, University of Exeter, UK</u>
09:50	10:50	60 mins	In-person	Workshop Caroline Wright, University of Exeter, UK
10:50	11:30	40 mins		Refreshment break and networking
11:30	12:30	60 mins		Session 9: Non-coding variation
11:30	12:30	60 mins		Session 9: Non-coding variation Learning objective: An appreciation of the nature and assessment of variants in non-coding elements of the genome Chair: Andrew Wilkie, University of Oxford, UK
11:30	12:30 12:00	60 mins 25 + 5 Q&A	Virtual	Learning objective: An appreciation of the nature and assessment of variants in non-coding elements of the genome
			Virtual In-person	Learning objective: An appreciation of the nature and assessment of variants in non-coding elements of the genome Chair: Andrew Wilkie, University of Oxford, UK Structural variations in the 3D genome
11:30	12:00	25 + 5 Q&A		Learning objective: An appreciation of the nature and assessment of variants in non-coding elements of the genome Chair: Andrew Wilkie, University of Oxford, UK Structural variations in the 3D genome Stefan Mundlos, Max Planck Institute, Germany - virtual presentation Title TBC
11:30 12:00	12:00 12:30	25 + 5 Q&A 25 + 5 Q&A		Learning objective: An appreciation of the nature and assessment of variants in non-coding elements of the genome Chair: Andrew Wilkie, University of Oxford, UK Structural variations in the 3D genome Stefan Mundlos, Max Planck Institute, Germany - virtual presentation Title TBC Nicky Whiffin, University of Oxford, UK
11:30 12:00	12:00 12:30	25 + 5 Q&A 25 + 5 Q&A	In-person	Learning objective: An appreciation of the nature and assessment of variants in non-coding elements of the genome Chair: Andrew Wilkie, University of Oxford, UK Structural variations in the 3D genome Stefan Mundlos, Max Planck Institute, Germany - virtual presentation Title TBC Nicky Whiffin, University of Oxford, UK Closing remarks Scientific Programme Committee: Helen Firth, Cambridge University Hospitals Trust, UK Julia Foreman, EMBL-EBI, UK