

3-5 February 2025

Course Programme

Start	Finish	Presenter details		
(GMT)	(GMT)			
Monday	/ 3 Febru	ary 2025		
12:00	13:00	Registration, lunch and networking		
13:00	13:10	Welcome		
13:00	13:05	Wellcome Connecting Science: Nagehan Ramazanoglu Bahadir, Wellcome Connecting Science, UK		
13:05	13:10	Scientific Programme Committee: Helen Firth, Cambridge University Hospitals Trust, UK		
		<u>Julia Foreman, EMBL-EBI, UK</u> James Fasham, University of Exeter, UK		
13:10	14:00	Keynote lecture		
		Chair: Helen Firth, Cambridge University Hospitals Trust, UK		
13:10	14:00	Incomplete penetrance and variable expressivity: lessons from population cohorts <u>Caroline Wright, University of Exeter, UK</u>		
14:00	15:00	Session 1: Tools for variant interpretation		
		Learning objective: Familiarity with core tools available for genomic variant interpretation Chair: James Fasham, University of Exeter, UK		
14:00	14:30	Resources for genomic medicine Eamonn Sheridan, University of Leeds, UK		
14:30	15:00	gnomAD and missense constraint [virtual] Kaitlin Samocha, Center for Genomic Medicine, Massachusetts General Hospital, USA		
15:00	15:30	Refreshment break and networking		
15:30	15:45	Gene disease curation (G2P) Michael Yates, University of Edinburgh, UK		
15:45	16:35	Session 2: ACMG framework		
		Learning objective: Awareness of the structure and application of the ACMG framework for variant classification Chair: Isabelle Delon, Cambridge University Hospitals, UK		
15:45	16:35	ACMG/AMP v4 frameworks for variant pathogenicity classification [virtual] Leslie Biesecker, NIH/NHGRI, USA		
16:35	16:40	Comfort break		
16:40	18:10	Session 3: Introduction to DECIPHER		
		Learning objective: Ability to independently utilise DECIPHER to assess a genomic variant Chair: Julia Foreman, EMBL-EBI, UK		
16:40	18:10	<u>Julia Foreman, EMBL-EBI, UK</u> Julie Lecarpentier-Guillou-Keredan, EMBL-EBI, UK Isabelle Delon, Cambridge University Hospitals, UK		
		Instructors from DECIPHER team: Blessing Ashimi, EMBL-EBI Maged Eladawy, EMBL-EBI Yusra Haider, EMBL-EBI Sarah Hunt, EMBL-EBI		
18:10	18:30	Free time		
18:30 18:30	20:30	Dinner Bar open (card payments only)		
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Tuesday 4 February 2025					
07:30	09:00	Breakfast			
09:00	11:00	Session 4: Cardiac variant interpretation			
		Learning objective: Understanding of some of the specific aspects of variant interpretation as applied to cardiac genetics Chair: Nicola Whiffin, University of Oxford, UK			
09:00	09:30	Cardiovascular Genetics James Ware, Imperial College London, UK			
09:30	11:00	Workshop James Ware, Imperial College London, UK Julia Foreman, EMBL-EBI, UK			
11:00	11:30	Refreshment break and networking			
11:30	13:00	Session 5: Cancer variant interpretation			
		Learning objective: Understanding of some of the specific aspects of variant interpretation as applied to cancer genetics Chair: Helen Firth, Cambridge University Hospitals Trust, UK			
11:30	12:00	Interpretation of variants in cancer susceptibility genes <u>Clare Turnbull, Institute of Cancer Research, UK</u>			
12:00	13:00	Workshop Clare Turnbull, Institute of Cancer Research, UK Alice Garrett, Institute of Cancer Research, UK Julia Foreman, EMBL-EBI, UK Helen Firth, Cambridge University Hospitals			
13:00	14:00	Lunch and networking			
14:00	16:00	Session 6: CNVs			
		Learning objective: Ability to utilise online tools for CNV interpretation and correlate genotype with phenotype Chair: Diana Baralle, University of Southampton, UK			
14:00	14:30	Complex de novo structural variants are an underestimated cause of rare disorders <u>Raheleh Rahbari, Wellcome Sanger Institute, UK</u>			
14:30	16:00	Workshop Julia Foreman, EMBL-EBI, UK Helen Firth, Cambridge University Hospitals Trust, UK Isabelle Delon, Cambridge University Hospitals, UK			
		Instructors from DECIPHER team: Blessing Ashimi, EMBL-EBI Maged Eladawy, EMBL-EBI Yusra Haider, EMBL-EBI Sarah Hunt, EMBL-EBI			
16:00	16:30	Refreshment break and networking			
16:30	17:30	Session 7: Non-coding variation			
		Learning objective: An appreciation of the nature and assessment of variants in non-coding elements of the genome Chair: Caroline Wright, University of Exeter, UK			
16:30	17:00	RNA and splicing analyses in Genomics <u>Diana Baralle, University of Southampton, UK</u>			
17:00	17:30	The role of non-coding exons in rare disease Nicola Whiffin, University of Oxford, UK			
17:30	18:30	Drinks reception			
18:30	20:30	Dinner			
18:30		Bar open (card payments only)			



Vedneso	day 5 Fe	bruary 2025
07:30	09:00	Breakfast
09:00	11:00	Session 8: 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: Julia Foreman, EMBL-EBI, UK
09:00	09:30	MAVEs Elizabeth Radford, University of Cambridge/WSI, UK
09:30	10:00	Decoding protein variant effects and molecular mechanisms through the lens of protein structure Joe Marsh, University of Edinburgh
10:00	11:00	Workshop Caroline Wright, University of Exeter, UK
11:00	11:30	Refreshment break and networking
11:30	13:05	Session 9: Therapies for genomic disorders
		Learning objective: gaining understanding of the potential of nucleic acid therapies in genomic medicine
		Chair: James Fasham, University of Exeter, UK
11:30	11:55	Therapeutic Genomics, who can and could be treated?
		Stephan Sanders, University of Oxford, UK
11:55	12:20	Leveraging long-read RNA-sequencing for the development of RNA targeting therapies
		Mina Ryten, University of Cambridge, UK
12:20	13:05	Genetic Hearing Loss Clinic and Gene Therapy
		Manohar Bance, University of Cambridge, UK
13:05	13:15	Closing remarks
13:05	13:15	Scientific Programme Committee:
		Helen Firth, Cambridge University Hospitals Trust, UK
		Julia Foreman, EMBL-EBI, UK James Fasham - University of Exeter, UK
13:15	14:00	Lunch and departures
14:00		Coach departure for Cambridge train station and city centre