



1st cryoNET course on advanced single particle cryo-EM analysis

Dates: 5-9 June 2023

Venue:

Dept. Molecular Biology and Genetics, Aarhus University
Universitetsbyen 81, building 1871-1872
8000 Aarhus C, Denmark

Organising committee

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Marta Carroni, Stockholm University

Tutors assisting organizers and speakers during the course

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Stavros Azinas, Stockholm University

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Daniel Larsson, Uppsala University

Michael Hall, Umeå University

Course program

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	Monday, 5 June	Subject	Venue
8h30	<i>Coffee/tea, poster hang-up & name tags</i>		<i>Outside auditorium (1871-120)</i>
9h00	Welcome by organizers	Opening remarks & practicalities	<i>Auditorium (1871-120)</i>
9h05	Katerina Naydenova (MRC Laboratory of Molecular Biology)	"Microscopy physics and image formation"	<i>Auditorium (1871-120)</i>
	<i>Short break</i>		<i>Outside auditorium (1871-120)</i>
10h00	Katerina Naydenova (MRC Laboratory of Molecular Biology)	"Specimen preparation for cryoEM"	<i>Auditorium (1871-120)</i>
11h00	<i>Coffee/tea break</i>		<i>Outside auditorium (1871-120)</i>
11h30	Stephen Mick (Gatan/Ametek)	"Direct Detection Camera Technology for Imaging and Spectroscopy"	<i>Auditorium (1871-120)</i>
12h30	<i>Lunch & coffee/tea break</i>		<i>Outside auditorium (1871-120)</i>
14h00	Joseph Atherton (Kings College London)	"Cryo-EM of Microtubules: Unique Image Processing For a Unique Polymer"	<i>Auditorium (1871-120)</i>
15h00	<i>Coffee/tea & cake break</i>		<i>Meeting room (1872-447)</i>
15h30	Joseph Atherton (Kings College London)	<i>Practical session</i>	<i>Meeting room (1872-447)</i>
17h00	Jack Turner (EMBL's European Bioinformatics Institute)	"EMDB & EMPIAR: Data In, Data Out and Everything In-between"	<i>Auditorium (1871-120)</i>
18h30	<i>Free time</i>		
19h30	<i>Speaker/organizer/tutors dinner</i> <i>Course participants dine on their own</i>		<u><i>Restaurant The Open Kitchen</i></u> <i>Address: Mindebrogade 5, 8000 Aarhus C</i>

	Tuesday, 6 June	Subject	Venue
8h30	<i>Coffee/tea</i>		<i>Outside auditorium (1871-120)</i>
9h00	Kiran Kulkarni (CSIR-National Chemical Laboratory)	<i>“Maximum Likelihood - Mathematical basis cryo-EM applications”</i>	<i>Auditorium (1871-120)</i>
10h30	<i>Coffee/tea break</i>		<i>Outside auditorium (1871-120)</i>
11h00	Oliver Clarke (Columbia University Medical Center)	<i>“Dealing with difficult datasets: understanding and overcoming heterogeneity in cryoEM data using cryoSPARC”</i>	<i>Auditorium (1871-120)</i>
12h00	<i>Lunch & coffee/tea break</i>		<i>Meeting room (1874-447)</i>
13h00	Oliver Clarke (Columbia University Medical Center)	<i>Practical session</i>	<i>Graphics room & next-door meeting room (1874-447)</i>
	<i>Coffee/tea & cake break (when it suits in the practical session)</i>		<i>Meeting room (1874-447)</i>
	Oliver Clarke (Columbia University Medical Center)	<i>Practical session continued</i>	<i>Graphics room & next-door meeting room (1874-447)</i>
17h00	Poster session <i>with pizza dinner & drinks</i>		<i>Outside auditorium (1871-120)</i>
19h00	<i>Free time</i>		
20h00	Elizabeth Wright (University of Wisconsin-Madison)	<i>“Cryo-CLEM and in situ structural biology”</i>	<i>Zoom (see link in calendar / mail)</i>

	Wednesday, 7 June	Subject	Venue
8h30	<i>Coffee/tea</i>		<i>Outside auditorium (1871-120)</i>
9h00	Björn Forsberg (University of Oxford)	<i>Relion theory: “Practical perspectives and tools for cryo-EM analysis”</i>	Auditorium (1871-120)
10h00	<i>Coffee/tea break</i>		<i>Outside auditorium (1871-120)</i>
10h30	Björn Forsberg (University of Oxford)	<i>Practical session</i>	<i>Graphics room & next-door meeting room (1874-447)</i>
12h30	Group photo		<i>Outside auditorium (1871-120)</i>
12h40	<i>Lunch & coffee/tea break</i>		<i>Meeting room (1874-447)</i>
14h00	Brady Johnston (University of Western Australia)	<i>“Blending Proteins: Democratising Access to Beautiful Molecular Landscapes”</i>	Auditorium (1871-120)
15h00	<i>Coffee/tea & cake break</i>		<i>Meeting room (1874-447)</i>
15h30	Brady Johnston (University of Western Australia)	<i>Practical session “Making Movies with Blender and Molecular Nodes”</i>	<i>Graphics room & next-door meeting room (1874-447)</i>
18h00	<i>Free time / walk to restaurant</i>		<i>It is a 30 min walk from the course venue to the restaurant.</i>
19h00 - 21h30	<i>Course dinner</i> <i>2½ hours ad libitum buffet with food and drinks</i>		<i>Restaurant FEAST at Aarhus harbour</i> <i>Address: Mariane Thomsens Gade 4C, 8000 Aarhus C</i>

	Thursday, 8 June	Subject	Venue
8h30	<i>Coffee/tea</i>		<i>Outside auditorium (1871-120)</i>
9h00	Bernhard Lohkamp (Karolinska Institutet)	"Cryo-EM model-building with Coot"	<i>Auditorium (1871-120)</i>
10h00	<i>Coffee/tea break</i>		<i>Outside auditorium (1871-120)</i>
10h30	Bernhard Lohkamp (Karolinska Institutet)	<i>Practical session</i>	<i>Graphics room & next-door meeting room (1874-447)</i>
11h30	<i>Lunch & coffee/tea break</i>		<i>Meeting room (1874-447)</i>
13h00	Oliver Raschdorf (Thermo Fisher Scientific)	"Optimizing cryo-EM Data Collection with Energy Filter and Direct Electron Detector"	<i>Auditorium (1871-120)</i>
14h00	Rubén Sanchez-Garcia (University of Oxford)	"Map postprocessing with deepEMhancer (and others)"	<i>Auditorium (1871-120)</i>
14h45	<i>Short break</i>		
15h00	Rubén Sanchez-Garcia (University of Oxford)	<i>Practical session</i>	<i>Graphics room & next-door meeting room (1874-447)</i>
16h00	Poster session <i>with coffee/tea, cake, snacks & drinks</i>		<i>Outside auditorium (1871-120)</i>
18h00	Tour of cryoEM facilities (www.embion.au.dk) <i>10 min walk from venue</i>		<i>EMBION at iNANO Address: Gustav Wieds Vej 14, 8000 Aarhus C</i>
19h00	Pizza dinner & drinks <i>10 min walk from cryoEM facilities</i>		<u>The Studenterbaren</u> <i>Address: Nordre Ringgade 3, 8000 Aarhus C</i>

	Friday, 9 June	Subject	Venue
8h30	<i>Coffee/tea</i>		<i>Outside auditorium (1871-120)</i>
9h00	Jose Miguel de la Rosa Trevin (St. Jude Children's Research Hospital)	"Hands-on Single Particles Analysis with Scipion"	<i>Auditorium (1871-120)</i>
10h00	<i>Coffee/tea break</i>		<i>Outside auditorium (1871-120)</i>
10h30	Jose Miguel de la Rosa Trevin (St. Jude Children's Research Hospital)	<i>Practical session</i>	<i>Graphics room & next-door meeting room (1874-447)</i>
12h30	<i>Lunch & coffee/tea</i> <i>Thanks for now & goodbye</i> <i>Poster take-down</i>		<i>Meeting room (1874-447)</i>

Grateful knowledgements of our financial support:

