



# High-Accuracy CLEM: Applications at Room Temperature and in cryo

EMBO PRACTICAL COURSE



**We have moved our website to [embl.org/events](https://embl.org/events). The content below is no longer being updated.**

## EMBL Courses and Conferences during the Coronavirus pandemic

With the onsite programme paused, many of our events are now being offered in virtual formats.

Registration is open as usual for many events, with back-up plans in place to move further courses and conferences online as necessary. Registration fees for any events affected by the COVID-19 disruption are fully refundable.

More information for participants of events at EMBL Heidelberg can be found [here](#).

## Programme

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### Day 1 - Sunday 7 April 2019

Time	Speaker	Location
14.00 - 14.30	<b>Registration &amp; Welcome</b>	Flex Lab A & B
14.30 - 15.00	<b>Welcome address, introduction, overview of the course</b>	Flex Lab A & B

Time	Speaker	Location
15.00 - 16.00	<b>Keynote lecture: CLEM, an introduction and some history</b> Paul Verkade, University of Bristol, UK	Flex Lab A & B
16.00 - 16.20	<b>Coffee break / Discussion</b>	Flex Lab A & B
16.20 - 18.45	<b>Flash Talks / Meet the Participants</b>	Flex Lab A & B
19.00	<b>Pizza dinner</b>	ATC Rooftop Lounge

## Day 2 - Monday 8 April 2019

Time	Speaker	Location
09.00 - 09:15	<b>Safety briefing</b>	Flex Lab A & B
09.15 - 10.15	<b>Keynote Lecture: Membrane remodeling during Endocytosis studied by CLEM</b> Ori Avinoam, Weizmann Institute of Science, Israel	Flex Lab A & B
10.15 - 10.30	<b>Coffee Break</b>	Flex Lab A & B
10.30 - 11.15	<b>Lecture: Technical aspects of the method for plastic sections</b> Paolo Ronchi, EMBL Heidelberg, Germany	Flex Lab A & B
11.15 - 12.00	<b>Lecture: Introduction to Cryo CLEM and to basic practicals</b> Martin Schorb, EMBL Heidelberg, Germany	Flex Lab A & B
12.00 - 13.00	<b>Lunch</b>	EMBL Canteen
13.00 - 18.00	<b>Practicals - sample preparation RT and cryo (parallel sessions for 4 sub-groups)</b>	Training Lab B
18.00 - 18.45	<b>Tips and tricks to adapt on-section CLEM to diverse biological questions</b> Paolo Ronchi, EMBL Heidelberg, Germany	Flex Lab A & B
18.45	<b>Dinner</b>	EMBL Canteen

## Day 3 - Tuesday 9 April 2019

Time	Speaker	Location
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Time	Speaker	Location
09.00 - 10.00	<b>Keynote Lecture: History of Cryo-CLEM</b> Anna Sartori-Rupp, Institut Pasteur, France	Flex Lab A & B
10.00 - 10.30	<b>Coffee Break</b>	Flex Lab A & B
10:30 - 11.15	<b>Lecture: Tricks and pitfalls in ultramicrotomy</b> Helmut Gnaegi, Diatome, Switzerland	Flex Lab A & B
11.15 - 12.15	<b>Lecture: Site Specific Cryo-FIB Preparation</b> Julia Mahamid, EMBL Heidelberg, Germany	Flex Lab A & B
12.15 - 13.15	<b>Lunch</b>	EMBL Canteen
13.15 - 19.00	<b>Practicals - RT sectioning, light microscopy at RT and cryo (parallel sessions for 4 sub-groups)</b>	Training Lab B
19.00	<b>Dinner</b>	EMBL Canteen

## Day 4 - Wednesday 10 April 2019

Time	Speaker	Location
09.00 - 10.00	<b>Lecture: Introduction to transformations and registrations</b> Martin Schorb, EMBL Heidelberg, Germany and Perrine Paul-Gilloteaux, University of Nantes, France	Flex Lab A & B
10.00 - 10.30	<b>Coffee Break / Discussion</b>	Flex Lab A & B
10.30 - 12.00	<b>Remote TEM session</b> Martin Schorb, EMBL Heidelberg, Germany	Flex Lab A & B
12.00 - 13.00	<b>Lunch</b>	EMBL Canteen
13.00 - 14.30	<b>Computer Practical: SerialEM hands-on</b> Martin Schorb, EMBL Heidelberg, Germany	Computer Training Lab
14.30 - 17.00	<b>Computer Practical: Icy and ec-CLEM</b> Perrine Paul-Gilloteaux, University of Nantes, France	Computer Training Lab
17.00 - 17.30	<b>Wrap up of first round of practicals that have introduced the entire work flow, Q&amp;A</b>	Computer Training Lab
17:30	<b>Departure for social event (guided city tour and dinner in old town Heidelberg)</b>	

## Day 5 - Thursday 11 April 2019

Time	Speaker	Location
09.45 - 10.45	<b>A toolbox of correlative microscopy approaches for studying native membrane architectures</b> Wanda Kukulski	Flex Lab A & B
10.45 - 11.00	<b>Coffee Break</b>	
11.00 - 11.45	<b>Lecture: Volume CLEM</b> Pedro Machado, EMBL Heidelberg, Germany	Flex Lab A & B
11.45 - 12.15	<b>Lecture: EM sample preparation solutions</b> Jan de Weert, Leica Microsystems, Germany	Flex Lab A & B
12.15 - 12.45	<b>Towards a workflow for cryoTEM preparation in structural biology</b> Alexander Rigort, FEI, Germany	Flex Lab A & B
12.45 - 13.45	<b>Lunch</b>	EMBL Canteen
13.45 - 18.45	<b>Round Table discussions and in-depth practicals</b>	Training Lab B and Flex Lab A & B
18.45 - 19.30	<b>Dinner</b>	EMBL Canteen
19:45 - 20:45	<b>Evening Lecture with drinks: Cell Biology meets Synthetic Biology</b> Paul Verkade, University of Bristol, UK	Courtyard Rooms A & B

## Day 6 - Friday 12 April 2019

Time	Speaker	Location
09.00 - 11.30	<b>In-depth practicals, and round table discussions on specific details (subgroups)</b>	Training Lab B
11.30 - 11.45	<b>Coffee break</b>	Flex Lab A & B
11.45 - 13.00	<b>Ask the Experts</b>	Flex Lab A & B
13.00 - 13.30	<b>Wrap up / Feedback</b>	Flex Lab A & B
13.30 - 14.00	<b>Packed Lunch and Farewell</b>	