

High resolution imaging technologies, exemplified by adaptive optics ophthalmoscopy (AOO) and optical coherence tomography (OCT), are progressively transferring from the lab to the clinics. This is an opportunity to better understand retinal diseases, to optimize their management but also to provide novel biomarkers for other medical specialties. The goal of this course is to report on the latest advances of high resolution imaging, both on its technical and medical aspects. This course will comprise basic knowledge on high resolution optical imaging and then describe a wide variety of normal and pathological retinal images as observed multimodally with AO and OCT technologies. In the first part of the meeting, physicists will report their latest advances. The second part will deal with clinical AOO imaging using the AOO rx1 device. At the end of the session, attendees may bring their own clinical cases for collective discussion (please advise us in advance since time may be limited). The second day will be devoted to training sessions: one for clinicians, imaging patients at the Quinze-Vingts hospital; the other for technical experts, with a visit of the QuinzeVingts Hospital imaging facility. This second day will be restricted to 10 persons per group (specific registration required).

Day 1 – September 4 Meeting

Institut Langevin, lobby level, 1 rue Jussieu, 75005 Paris

08:30 Coffee

09:00 Welcome talk (Michel Paques)

09:15 – Session 1: High resolution retinal imaging: present and future – Chair: Ravi Jonnal

Adaptive optics: State of the art	K. Grieve, Paris (15 min)
High speed adaptive optics	S. Meimon, Paris (15 min)
Doppler Holography for choroidal & retinal flow	M. Atlan, Paris (15 min)
Detecting RPE and ganglion cells	E. Rossi, Pittsburgh (30 min)

 *Technical posters and coffee (30 min)*


11:00 – Session 2: AO and OCT– Chair: Kate Grieve [video recording]

Talk	M. Pircher, Vienna (30 min)
Full field OCT	C. Boccara, Paris (30 min)
Talk	R. Jonnal, Davis (30 min)

12:30– All posters session and lunch

14:30 – Session 3: How to interpret AAO images –a beginner’s guide – Chair: Michael Pircher

RTX1 presentation	N. Chateau, Paris (10min)
Toward a standard procedure for AOO imaging	M. Paques (15 min)
Image processing	F. Rossant, Paris (15 min)
Basic interpretation of photoreceptor imaging	K. Grieve (15 min)
Basic interpretation of vessel imaging	M. Paques (15 min)

 *Clinical posters and coffee (30 min)*

16:00 – Session 4: AOO of pathological retina – Chair: Ethan Rossi

AMD	S. Mrejen, Paris (20 min)
Photoreceptor diseases	K. Gocho, Tokyo (10 min)
AO imaging in retinal dystrophies	K. Stingl, Tubingen (20 min)
Arterial hypertension	M. Larsen, Copenhagen (20 min)
Inflammation and rare vascular diseases	M. Paques, Paris (15 mn)
Talk	Orateur Imagine Eyes, Japan (20 min)

 *Pause (20 min)*

18:00 – Session 5: Case presentations– Chair: Katarina Stingl

19:00 – End of day 1

Day 2 – September 5

Practical AOO training and innovative imaging systems

Quinze-Vingts Hospital (main building, 4th floor), 28 rue de Charenton 75012 Paris;

Practical sessions will be held for two groups of 10 people.

The clinical group will see demonstrations of the rtx1 camera in controls and patients. Participants will have the possibility to perform examinations on each other, during which the various structures observable by adaptive optics ophthalmoscopy will be commented. Participants are also encouraged to bring their own clinical cases for informal case discussions. New high resolution imaging systems at the Quinze Vingts Hospital will also be presented.

The technical group will visit the technologies under development at the Quinze Vingts Hospital, and will have the opportunity to experience clinical imaging on patients and controls with these devices.

As the number of participants is limited, please indicate at the time of registration if you wish to participate.

Clinical group

09:00 – Practical training on the rtx1
Quinze-Vingts Hospital

Technical group

11:00 – Innovative imaging systems
Quinze-Vingts Hospital

With the participation of Michel Paques, Kate Grieve, Céline Chaumette, Michael Atlan, Serge Meimon and colleagues.

13:00 – End of day 2

Information

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Online registration

F-CRIN website: <https://www.fcrin.org/formation/adaptive-optics-optalmoscopy-2019>

Prices

Orthoptists/optometry/post-docs/students

Ophthalmologists/ researchers

Private sector

Day 1

50€

150€

250€

Day 1 + Day 2

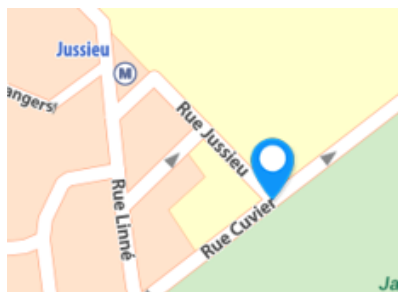
80 €

180 €

280 €

Access

Langevin Institute



Address

Institut Langevin

Lobby level

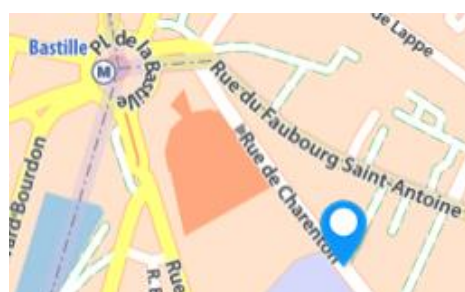
1 rue Jussieu

75005 Paris

Metro

Metro station Jussieu lines 7 or 10

Quinze-Vingts Hospital



Address

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