FIRST AUTUMN COURSE ON
ADAPTIVE OPTICS RETINAL IMAGING
October 8 & 9, 2018 - Paris

Organizers
Prof Michel Paques
Dr Kate Grieve
Dr Serge Meimon
Dr Michael Atlan

DAY 1 - Seminar
Amphithéâtre de l’Institut Langevin,
1 rue Jussieu, Paris
Station Jussieu - lines 7 or 10

DAY 2 – Training session
Hôpital des 15-20,
28 rue de Charenton, Paris
Station Bastille - lines 1, 5, 8

> Registration: http://www.fcrin.org/formation/formation-inscription-gipse
> Contact: aurelie.rabier@inserm.fr
High resolution imaging technologies, exemplified by adaptive optics imaging, 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. However, there is still an unmet need in the field of clinical interpretation of AO images, and more importantly in the integration of AO into clinical practice.

The goal of this course is to train ophthalmologists, physicists and technicians in the use and interpretation of AO imaging, with a strong emphasis on practical issues. 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 with the rtx1 camera, the only commercially available AO camera. Attendees may bring their own cases for collective discussion at the end of the session (please advise us in advance since time slots may be limited). The second day will be devoted to training sessions with patients at the Quinze-Vingts hospital; this second day will be restricted to 20 persons (specific registration required).

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**Day 1 – October, 8**

**Clinical applications of adaptive optics ophthalmoscopy**

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

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**08:30** Welcome coffee

**09:00 – Session 1 : High resolution retinal imaging: present and future – Chair: Kate Grieve**

**Structural imaging**
- Adaptive optics: flood versus scanning
  - K. Grieve, Paris
- High speed AO and structural illumination
  - S. Meimon, Paris
- Ganglion cells and RPE imaging
  - E. Rossi, Pittsburgh

**Blood flow**
- Holography
  - M. Atlan, Paris
- Laser Doppler with the rtx1
  - C. Chiquet, Grenoble; M. Geiser, EPFLausanne

**11:00 – Session 2 : The normal retina seen by AO ophthalmoscopy – Chair: Michel Paques**

**The rtx1 camera : what you need to know first**
- Technical presentation
  - N. Chateau, Imagine Eyes
- Real life use, protocols, tips & tricks
  - M. Paques, Paris

**What is a normal AOO image**
- Basic interpretation of photoreceptor imaging
  - K. Grieve, Paris
- Counting photoreceptors
  - J. Jacob, Belgium
- R. Legras, Orsay

- Basic interpretation of vessel imaging
  - M. Paques, Paris
- What are Gunn’s dots?
  - M. Paques, Paris

**12:45 – Lunch**
14:00 – Session 3: AOO of the pathological retina – Chair: Michel Paques

Dry age-related macular degeneration

M. Paques, Paris

Photoreceptor diseases: beyond counting PRs

K. Gocho, Tokyo
K. Stingl, Tubingen
M. Paques

Retinal dystrophies

M. Paques

Photoreceptor misalignment

M. Paques

Microvessels: a window to general diseases

M. Larsen; Copenhagen
A. Gallo, Paris
M. Paques

Arterial hypertension

M. Paques

Diabetes, arteriolsclerosis

M-H Errera, Pittsburgh
A. Rousseau, Paris
S. Tick, Paris
V. Krivosic, Paris

Inflammation

Amylosis

Radiation retinopathy

CADASIL

Surgical diseases: ERM, RD, MH

M. Paques, Paris

16:45 – Session 4: Case presentations – Chair: Katarina Stingl

Expected speakers: C. Arndt, C. Faure, J. Hugo, M. Kempf

18:00 – End of day 1

Day 2 – October, 9

Practical training on the rtx1

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

Two successive practical sessions will be held for two groups of 10 persons, during which demonstrations of the rtx1 camera will be done in controls and in patients. Participants will have the possibility to perform examination on each other, during which the various structures observable by adaptiv optics ophthalmoscopy will be commented.

Participants are also encouraged to bring their own clinical cases for informal case discussions. Presentation of other high resolution imaging systems will also be done. As the number of participants is limited, please indicate at the time of registration if you are willing to participate.

09:00 – First session

11:00 – Second session

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

13:00 – End of day 2
Information
aurelie.rabier@inserm.fr
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Online registration
F-CRIN website: http://www.fcrin.org/formation/formation-inscription-gipse

The training course is provided by the Health Education Group of Public Interest, an approved training organization.
Registration official number: 73310701131 | SIRET: 130 018 195 000 11.

Prices
Orthoptists/optometry and physicists 75 €  Day 1  105 €  Day 1 + Day 2
Ophthalmologists 150 €  Day 1  180 €  Day 1 + Day 2
Private sector 250 €  Day 1  280 €  Day 1 + Day 2
Other 75 €  Day 1  150 €  Day 1 + Day 2

Access
Day 1 – October, 8
Address
Institut Langevin
lobby level
1 rue Jussieu
75005 Paris
Metro
Metro station Jussieu lines 7 or 10

Day 2 – October, 9
Address
Quinze-Vingts Hospital
(main building, 4th floor)
28 rue de Charenton
75012 Paris
Metro
Metro Bastille lines 1, 5, 8

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