

# FIRST AUTUMN COURSE ON ADAPTIVE OPTICS RETINAL IMAGING

October 8 & 9, 2018 — Paris, France



## Organizers

Prof Michel Paques

Dr Kate Grieve

Dr Serge Meimon

Dr Michael Atlan

> [Click here to access the online registration](#)



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

**08:30 - 09:00** - Welcome coffee

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

### **Structural imaging**

Adaptive optics: flood versus scanning  
High speed AO and structural illumination  
Ganglion cells and RPE imaging  
Image processing and analysis

K. Grieve, Paris  
S. Meimon, Paris  
E. Rossi, Pittsburgh  
F. Rossant, Paris

### **Blood flow**

Holography  
Laser Doppler with the rtx1

M. Atlan, Paris  
C. Chiquet, Grenoble; M. Geiser, EPFLausanne



**Session 2 : The normal retina seen by adaptive optics ophthalmoscopy– Chair: Michel Paques**

### **The rtx1 camera : what you need to know first**

Technical presentation  
Real life use, protocols, tips & tricks

N. Chateau, Imagine Eyes  
M. Paques, Paris

### **What is a normal AOO image**

Basic interpretation of photoreceptor imaging  
Counting photoreceptors

K. Grieve, Paris  
J. Jacob, Belgium  
R. Legras, Orsay

Basic interpretation of vessel imaging  
What are Gunn's dots?

M. Paques, Paris  
M. Paques, Paris

**12:45 - 14:00** – Lunch

## Session 3 : AOO of the pathological retina – Chair: Michel Paques

### Dry age-related macular degeneration

S. Mrejen, M Paques, Paris

### Photoreceptor diseases: beyond counting PRs

Retinal dystrophies  
Photoreceptor misalignment

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

### Microvessels: a window to general diseases

Arterial hypertension

M. Larsen; Copenhagen  
A. Gallo, Paris

Diabetes, arteriolosclerosis

M. Paques

Inflammation

M-H Errera, Pittsburgh

Amyloidosis

A. Rousseau, Paris

Radiation retinopathy

S. Tick, Paris

CADASIL

V. Krivosic, Paris

### Surgical diseases: ERM, RD, MH

M. Paques, Paris



## SESSION 4: Case presentations – Chair: Katarina Stingl

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

**18 :00** – End of day 1

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## 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 adaptive 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.

**08:30 - 09:00** - Welcome coffee

**09:00** – First session

**11:00** – Second session

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

**18 :00** – End of day 2

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## Information

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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 organisation  
Registration official number: 73310701131 | SIRET: 130 018 195 000 11.

## Prices

Orthoptists/optometry and physicists  
Ophthalmologists  
Private sector  
Other

## Day 1

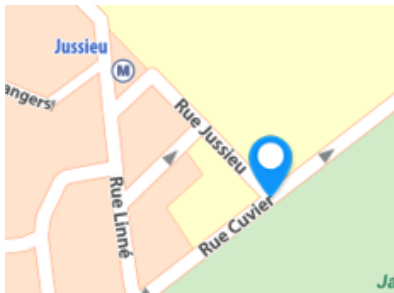
75 €  
150 €  
250 €  
75 €

## Day 1 + Day 2

105 €  
180 €  
280 €  
150 €

## 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

## Telephone contact on site

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