Objectives

- Understand the principles of ultrasound images acquisition and processing
- Acquire ultrasound images autonomously
- Analyse US data autonomously
- Apply the concepts of US imaging to developmental biology, cardiology, hemodynamics, …
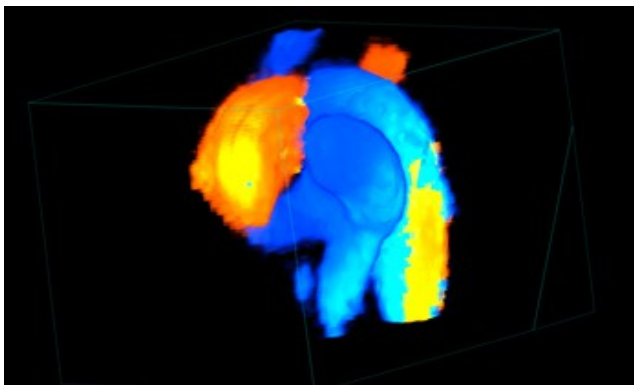- Get familiar with current technological evolutions

Public

Biologists, from technician to researcher, in particular in the fields of cardiology, cancerology, developmental biology ; MDs and physicists.
Max. 9 participants

Language

English or French depending on participants preference.

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Mouse aortic arch (Doppler)

Contents

- **Lectures**
  - Introduction to ultrasound imaging : parameters, fine-tuning
  - Echocardiography
  - Hemodynamics
  - Advanced ultrasound imaging (contrast, ultrasound elastography, …)

- **Hands-on**
  - Gestation/development
  - Echocardiography
  - Abdominal anatomy and tumors
  - Hemodynamics
  - Data analysis

- **Demonstrations**
  - Embryo micro-guided injection
  - Contrast ultrasound

Method

- Lectures (7h – 25%)
- Practical work (21h – 75%)
- Teaching packages in small groups (max. 3p/group)

Duration

4 days (28 hours)

Dates

September 29 – October 2, 2015

Venue

Plate-forme d'Imagerie du Petit Animal
Hôpital Cochin - Bât. Hardy A, 1er étage
27 rue du Faubourg Saint-Jacques
75014 Paris

Credit

Up to 2 ECTS could be given to the course participants by their home University

Registration deadline

September 3d, 2015

Registration fees

Student : 900€
Academic : 1800€
Industrial : 3000€

Ref code : 14A

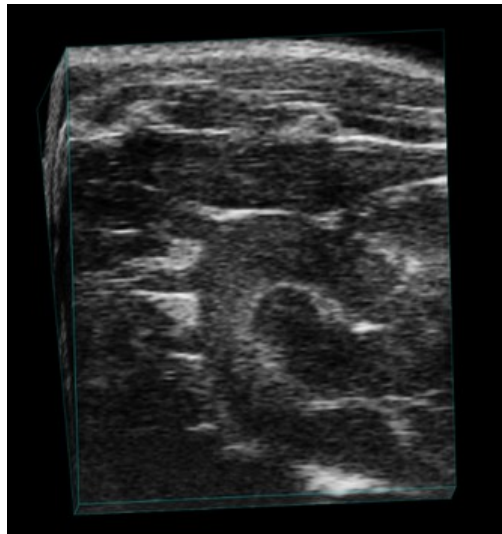**Scientific advisor / course leader**

Gilles Renault (Université Paris Descartes)
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Training manager

Vivienne Fardeau (INSTN)
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Registration

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Mouse aortic arch (3D)

![FLi - France Life Imaging]

More training courses

with France Life Imaging

- More ultrasound imaging sessions to come in 2016
- « NMR sequence programming with the Paravision 3.0.2 to 5.1 environment » Villeurbanne, September 22-25 2015
- Workshop « Imaging your career 2015 : transferable skills in imaging » - Paris, October 7-8, 2015
- Atelier « Biomarqueurs et agents d'imagerie en neurologie », Orsay, November 16-17, 2015
- Atelier « Biomarqueurs et agents d'imagerie en infectiologie et inflammation », Paris, January 2016
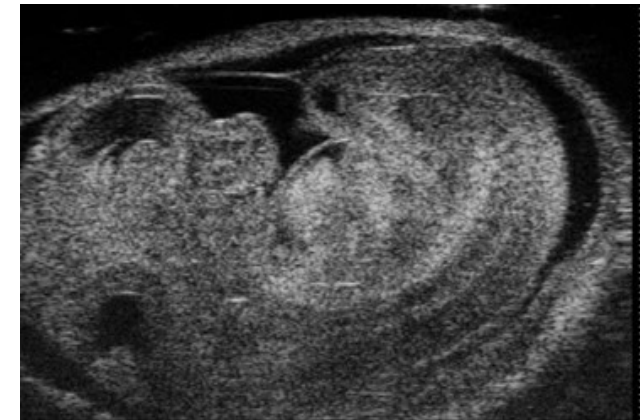
More information to come on our website
http://francelifeimaging.fr

Contact the FLI Education Work Package
vivienne.fardeau@cea.fr
lauranne.duquenne@inserm.fr

![instn - Institut national des sciences et techniques nucléaires]

High-resolution small animal ultrasound imaging

Practical training to become an independent user

© PIPA, Institut Cochin
12 days mouse embryo

**September 29 – October 2, 2015
Paris, France**

![CEA logo]   ![FLi logo]

www-instn.cea.fr