

## Animal Welfare Course C updated

Training course for registered persons performing animal experiments and for study directors

### **Endocrine Disruptors: Basic Principles, Sexual Development of Fish and Testing of Endocrine Active Substances**

Monday, November 4, 2019

#### **Course Focus:**

**Endocrine Active Substances:** Endocrine disruptors, hormonal regulation of reproduction and metabolism, endocrine potency of substances

**Sexual Development of Fish:** Anatomy, gonads, sexual differentiation and development, secondary sex characteristics, sex and sex reversal

**Testing of endocrine disruptors:** Test methods with suitable endpoints and their sensitivity, what is an endocrine effect, test strategies

**Removal of Blood and Gonads** in order to assess endocrine effects on vitellogenin and histological effects on gonads.

**Video on fatal health consequences due to exposure to endocrine disruptors**

#### **Duration, Purpose and Language of Course:**

The course will take place from 0915 to 1800h. It will be regarded as a one day further education course by the Swiss authorities or as part of the education of persons responsible for directing animal experiments in the context of MODUL ECOTOX corresponding to FELASA-C (MODUL ECOTOX consists of a total of six courses A, B1, B2, B3, D2 and P: theoretical and practical education of at least 40 hours for persons responsible for directing animal experiments). The course is adapted to registered persons performing animal experiments as well as for study directors. The course language is English or German depending on the audience.

#### **Organisational Information:**

*Lead & Instructors:* Dr. Hans Rufli, **ecotoxsolutions**, Basel  
Dr. Susanne Knörr, Heidelberg

*Registration:* [rufli@ecotoxsolutions.com](mailto:rufli@ecotoxsolutions.com)

*Costs:* Fr.700.- including pdf-files of the presentations sent prior to the course. Handouts in a file handed out at the start of the course can be organized on demand.  
Fruits, croissants, sweets and mineral water will be offered during the course.

*Location:* **ecotoxsolutions**, meeting room R-1095.327  
Entrance Rosental: Port 1047, Mattenstrasse 24a (Tram stop „Gewerbeschule“). I will wait at Port 1047 and guide the participants to the meeting room.

*Access:* By car: Exit motorway “Badischer Bahnhof”, parking place “Parkhaus Badischer Bahnhof”, Schwarzwaldallee 160 (ca. 300 m distance)  
By train: Basel „Badischer Bahnhof“ (10 min walk to port 1047), or „Bahnhof SBB“ (tram 2, direction „Riehen“ until stop „Gewerbeschule“) (5 min walk to port 1047).

*Certificate:* A written certificate will be handed out at the end of the course. This certificate will have to be shown to the Swiss authorities on request.

# Animal Welfare Course C updated

Monday, November 4, 2019

Time	Topics	Speaker
0915-0945	Welcome, Information about Course	H. Rufli
0945-1100	<b>Endocrine Active Substances:</b> 1) Endocrine disruptors, hormonal regulation of reproduction and metabolism, endocrine potency of substances 2) What is an endocrine effect?	S. Knörr H. Rufli
1100-1145	<b>Sexual Development of Fish:</b> 1) Gonad development and maturation stages	S. Knörr
1145-1245	<i>Lunch</i>	
1245-1520	<b>Sexual Development of Fish:</b> 2) Sexual differentiation & Sensitive Windows 3) Endpoints and endocrine effects 4) Sex determination and sex reversal	H. Rufli
1520-1600	<b>OECD-Test methods</b> for endocrine active substances <b>Teststrategies</b> for endocrine substances	H. Rufli
1600-1630	<b>Removal of Blood and Gonads</b> in order to assess endocrine effects on vitellogenin and histological effects on gonads	S. Knörr
1630-1730	<b>Video on fatal health consequences due to exposure to endocrine disruptors</b>	H. Rufli
1730-1800	Course Evaluation and Final Review	H. Rufli