

**SCR-PRA-050**

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**SCREENING METHODS**  
**Electrochemical biosensors**

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• **Context**

Screening methods are defined as analytical strategies providing strong indications for the presence of a drug residue in a sample. The residue present may be in the form of a parent drug or of its metabolite. Desirable features for screening tests are high throughput possibilities combined with a low rate of false negative results. Amongst the potential screening technologies, biosensors, which have been applied to a wide variety of analytical problems in medicine, drug discovery, environment, security and more recently food quality and safety, are promising.

• **General objective(s)**

The course is dedicated to the demonstration of an electrochemical biosensor. The demonstration will focus on the determination of mycotoxins in cereals and cereal-based baby foods..

• **Main items**

Voltammetry / Biosensor / Electrochemical cell / Oxidation, Reduction / Electrode / Mycotoxins

• **Pedagogical objectives**

- ✓ To list the main steps required to perform an electrochemical measurement
- ✓ To interpret the resultant current flowing through the electrochemical cell

• **Pedagogical tools**

- ✓ Demonstration on an electrochemical biosensor instrument
- ✓ Group of maximum 10 persons

• **Duration**

1h20

• **Pre-requisite**

- ✓ Theoretical lectures on screening methods (SCR-THE-010, SCR-THE-050)