



Job opening PhD research:

Development of biosensors for the detection and quantification of small molecules and micro-organisms

■ Project description:

“Smart Sensors” combined with ICT are considered as one of the main solutions to secure food for 9 billion persons in a sustainable and profitable manner. ILVO, as a multidisciplinary research institution, focusses with the ISense project on an important strategic mission: increase sustainability, efficiency, animal welfare, food quality and safety through concrete innovations applying sensor technology in agriculture, fisheries and the food sector.

In the ISense project, three PhD researchers will cooperate on three different topics: Precision livestock farming, precision crop farming and biosensors. The research on biosensors will focus on the detection and quantification of small molecules (biotoxins) and micro-organisms through the use of biosensors:

- For a selection of small molecules, specific aptamers will be developed and attached to a sensor surface.
- For the detection of fungi or bacteria, cellular imprints will be explored via innovative technology allowing to develop specific and selective imprints of a target cell, that is easily attachable to a sensor surface.

The academic promotor is attached to the Institute for Materials Research IMO of the Hasselt University.

■ Profile:

Candidates should hold an MSc degree, with preference towards biotechnology, bio-electronics, chemistry, bio-engineering or civil engineering, or equivalent through competence or experience. A strong interest in a combination of microbiology and technical skills are demanded. A scientific attitude is necessary, experience with biosensors or aptamers is appreciated. Holding a driver's license is recommended.

■ Practical information:

Candidates may contact Prof. Marc Heyndrickx (marc.heyndrickx@ilvo.vlaanderen.be ; +32 9 272 30 44), dr. Johan Robbens (johan.robbens@ilvo.vlaanderen.be; +32 486 20 85 59) or dr. Katrien Broekaert (katrien.broekaert@ilvo.vlaanderen.be; +32 9 272 30 26) for more information regarding the content.

For more information regarding the scholarship and legal procedure: dr. Björn Possé (bjorn.posse@ilvo.vlaanderen.be ; + 329 272 25 37), Onderzoekscoördinatie ILVO, Burg. Van Gansberghelaan 96 bus 1, 9820 Merelbeke.

Interested candidates are encouraged to send a letter of motivation and CV, **before August 1st 2014**, to the Administrator-General of ILVO, [Joris Relaes](#) (Joris.Relaes@ilvo.vlaanderen.be).