

Vacancies: 4 positions for broiler chicken welfare researchers

Imecon project **WISH** - Welfare Improving monitoring Solutions for cHickens



A collaboration between:

funded by imec and Agentschap Innoveren & Ondernemen (VLAIO)

About the project

(market: smart agrifood)

The poultry industry wants to keep on growing, while at the same time keeping an eye on animal welfare and adhering to a changing regulation. This will require a further automatization of the welfare and behavior assessment of poultry while offering opportunities to steer behavior in real-time. To enable this, the WISH project plans to design innovative sensor technology and flock based analysis methods. This should lead to a new gold standard in poultry welfare monitoring.

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A changing landscape for the poultry industry

The poultry industry in Flanders and beyond has highly efficient production systems. Still, the projected growth is likely to result in issues with the health and welfare of the poultry. This will cause productivity losses and economic pressure throughout the sector. In addition, the legislative framework is changing for both the farms and the companies developing feed additives and veterinary drugs. Last, there is a growing consumer pressure to raise poultry that adhere to high-quality standards.

The need for automated assessment

Assessing the behavior and welfare of poultry still requires a high measure of manual labor. This is not only costly and subjective, but also leads to late intervention and incorrect data interpretation.

In the WISH project, the project partners will design a modular system-based toolbox of sensors and interpretation possibilities. These can be geared towards laboratories or industrial poultry farms.

A toolbox of innovative sensing and analysis

For laboratories, the WISH researchers foresee a high-end, full spectrum of functionalities. These will help clinical research organizations, feed additives labs, and developers of veterinary drug and welfare-improving systems. For commercial farms, customized combinations of the toolbox modules will be developed.

The WISH toolbox will be based on novel sensor technologies and flock-based analysis methods. These will be designed to continuously monitor chickens, provide feedback, and allow dynamic behavior steering in real-time with led light recipes and/or multifunctional platforms. All this to improve the productivity of poultry farming and the welfare of the animals.

"The poultry industry is looking for solutions that increase the welfare of animals and that have a positive impact on the productivity, at an acceptable pricing. To address this demand, WISH aims to design a new golden standard of poultry welfare monitoring."

Vacancies at



Prof. dr. Gunther Antonissen (Chair Poultry Health Sciences)
and **Prof. dr. Frank Tuytens** (Ethology and Animal Welfare Research Group & ILVO) are recruiting:

The project started on 01/03/2022 and is set to run until 29/02/2024.

Research position 1: **PhD position Poulpharm (4-year full time)**

Exploring the potential of conventional and sensor-based welfare indicators in applied poultry research

Poulpharm has extensive experience in poultry diagnostic and in performing animal infection studies. Although Poulpharm has an animal welfare policy when conducting studies, parameters for animal welfare related to physical health and affective state are not included in animal studies. Because of the intensification of poultry meat production globally, the importance of animal welfare is increasing. Including animal welfare parameters in animal studies at Poulpharm would give an important added value to the studies performed.

In this project Poulpharm in collaboration with Ghent University aims on the one hand to develop sensitive analytical methods and continuous scoring systems to measure conventional non-sensor-based welfare indicators in broiler chickens under various experimental conditions, and on the other hand to explore more automated sensor-based monitoring protocols for evaluating poultry behavior and welfare under experimental and field conditions.

WHAT DO WE OFFER?

- The PhD-student will be employed by Poulpharm and registered for a PhD at the Faculty of Veterinary Medicine of Ghent University
- Working in a pleasant environment with a young and dynamic team of the industrial partner Poulpharm
- Working in close collaboration with Ghent University
- The opportunity to obtain a PhD and take the next step in your research career

PROFILE OF THE CANDIDATE

- holds a university degree (Master's or a degree of minimum 4 years of study considered equivalent by Ghent University) in a biological science, including animal science, veterinary medicine, zoology, bio-engineering, and related disciplines
- has a strong interest in poultry health and welfare with a drive to learn and adopt a variety of new techniques.
- has good IT (MS Word/MS Excel/Powerpoint/Outlook), numeracy and statistical skills
- has (or is willing to obtain) a FELASA Category C certificate to work with laboratory animals.
- has a European driving license (category B)
- is ambitious, practically skillful, able to work in a team setting, and have strong analytical problem-solving skills (creative, critical, and open-minded).
- has excellent oral and written communication skills, and is proficient in English.
- is driven to explore research questions independently and in depth
- has a specific interest in research valorisation and preclinical studies

HOW TO APPLY

Send your motivation letter, scientific resume, relevant publications (when applicable), and two reference contacts to Poulpharm (jobs@poulpharm.be) and Prof. dr. Gunther Antonissen (gunther.antonissen@ugent.be) in cc by e-mail by January 28, 2022. After the first screening, suitable candidates will be invited for an interview.

MORE INFORMATION

For more information about this vacancy, please contact Prof. dr. Gunther Antonissen (gunther.antonissen@ugent.be)

Research position 2: Junior Scientific staff (Ghent University)
Fluctuating asymmetry as a welfare indicator of broiler chickens

Developmental instability refers to the inability of developmental pathways to resist accidents and perturbations during growth processes such that the intended phenotype is not realized. It is most commonly measured as fluctuating asymmetry (i.e. small, randomly directed deviations from perfect symmetrical development in bilateral traits, resulting from the inability of individuals to undergo identical development on both sides of the plane of symmetry). It has been suggested that fluctuating asymmetry reflects an animal's ability to cope with the sum of challenges during its growing period and, thus, is a promising objective and integrated welfare indicator. The aim of this project is to further validate fluctuating asymmetry as a general indicator of animal welfare by investigating its sensitivity to a wide variety of conditions that affect broiler welfare both negatively and positively.

WHAT DO WE OFFER?

- Junior Researcher will be employed by the Faculty of Veterinary Medicine of Ghent University
- We offer you a contract of definite duration for a period of 24 months full-time, possibility to continue towards a PhD can be explored.
- Working in a pleasant environment with a young and dynamic team of Ghent University in close collaboration with the Flanders Research Institute for Agriculture, Fisheries and Food (ILVO)
- Working in close collaboration with industrial partners
- The opportunity to obtain a PhD and take the next step in your research career

PROFILE OF THE CANDIDATE

- holds a university degree (Master's or a degree of minimum 4 years of study considered equivalent by Ghent University) in a biological science, including animal science, veterinary medicine, zoology, bio-engineering, and related disciplines
- has a strong interest in poultry health and welfare with a drive to learn and adopt a variety of new techniques.
- has good IT (MS Word/MS Excel/Powerpoint/Outlook), numeracy and statistical skills
- has (or are willing to obtain) a FELASA Category C certificate to work with laboratory animals.
- has a European driving license (category B)
- is ambitious, practically skillful, able to work in a team setting, and has strong analytical problem-solving skills (creative, critical, and open-minded).
- has excellent oral and written communication skills, and is proficient in English.
- is driven to explore research questions independently and in depth

HOW TO APPLY

Apply online through the e-recruitment system (<https://www.ugent.be/en/work>) before the application deadline (January 28, 2022). We do not accept late applications or applications that are not submitted through the online system.

Your application must include the following documents:

- In the field 'CV': your CV and an overview of your study results (merged into one pdf file)
- In the field 'Cover letter': your application letter in pdf format
- In the field 'Diploma': a transcript of the required degree (if already in your possession). If you have a foreign diploma in a language other than our national languages (Dutch, French or German) or English, please add a translation in one of the mentioned languages.
- In the field "other documents": two references or reference contacts, an overview of your study results, ...

Note that the maximum file size for each field is 10 MB.

As Ghent University maintains an equal opportunities and diversity policy, everyone is encouraged to apply for this position.

MORE INFORMATION

For more information about this vacancy, please contact Prof. dr. Gunther Antonissen (gunther.antonissen@ugent.be).

Important: do NOT send your application by email, but apply online.

Research position 3: Junior Scientific staff (Ghent University)
Innovations to improve the indoor living environment and self-control of broiler chickens

In collaboration with industrial partners, two promising technological innovations for improving the agency, welfare and productivity of indoor-housed broilers will be developed. The first innovation concerns Explorentis' dynamic LED-lighting system that matches the broilers' light preferences in distinctive functional zones (feeding, drinking, scratching/foraging/dustbathing, resting/perching zones). The second innovation concerns multifunctional platforms - conceptualized by ILVO & Roxell - to accommodate various physiological and behavioural needs of broilers (thermoregulation, roosting/resting, shelter). Using a combination of conventional methodologies complemented with high-tech sensor & machine learning technologies, the effect of these innovations on broiler welfare, performance and carcass quality will be tested under experimental conditions (with ambient conditions within versus slightly above the thermoneutral zone) and possibly commercial conditions.

WHAT DO WE OFFER?

- Junior Researcher will be employed by the Faculty of Veterinary Medicine of Ghent University
- We offer you a contract of definite duration for a period of 24 months full-time, possibility to continue towards a PhD can be explored.
- Working in a pleasant environment with a young and dynamic team of Ghent University in close collaboration with the Flanders Research Institute for Agriculture, Fisheries and Food (ILVO)
- Working in close collaboration with industrial partners
- The opportunity to obtain a PhD and take the next step in your research career

PROFILE OF THE CANDIDATE

- holds a university degree (Master's or a degree of minimum 4 years of study considered equivalent by Ghent University) in a biological science, including animal science, veterinary medicine, zoology, bio-engineering, and related disciplines
- has a strong interest in poultry health and welfare with a drive to learn and adopt a variety of new techniques.
- has good IT (MS Word/MS Excel/Powerpoint/Outlook), numeracy and statistical skills
- has (or are willing to obtain) a FELASA Category C certificate to work with laboratory animals.
- has a European driving license (category B)
- is ambitious, practically skillful, able to work in a team setting, and has strong analytical problem-solving skills (creative, critical, and open-minded).
- has excellent oral and written communication skills, and is proficient in English.
- ideally is able to speak Dutch
- is driven to explore research questions independently and in depth

HOW TO APPLY

Apply online through the e-recruitment system (<https://www.ugent.be/en/work>) before the application deadline (January 28, 2022). We do not accept late applications or applications that are not submitted through the online system.

Your application must include the following documents:

- In the field 'CV': your CV and an overview of your study results (merged into one pdf file)
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- In the field "other documents": two references or reference contacts, an overview of your study results, ...

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MORE INFORMATION

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**Research position 4: Post-doc position: (Ghent University)
Coordinating and supervising all above broiler welfare & performance studies**

This senior researcher will coordinate the various studies on broiler welfare and performance, and will supervise 4 junior researchers in the project. He/she will be the first contact person for the junior researchers and will liaise with the principal investigators and project coordinators.

WHAT DO WE OFFER?

- Postdoctoral Researcher will be employed by the Faculty of Veterinary Medicine of Ghent University
- We offer you a contract of indefinite duration for a maximum period of 22 months half-time or 11 months full-time.
- Working in a pleasant environment with a young and dynamic team of Ghent University in close collaboration with the Flanders Research Institute for Agriculture, Fisheries and Food (ILVO)
- Working in close collaboration with industrial partners

PROFILE OF THE CANDIDATE

- holds a thesis-based doctoral degree. Preferably a PhD in biological science, including animal science, veterinary science, zoology, bio-engineering or related disciplines
- has a strong interest in poultry health and welfare with a drive to learn and adopt a variety of new techniques.
- has good IT (MS Word/MS Excel/Powerpoint/Outlook), numeracy and statistical skills
- has (or are willing to obtain) a FELASA Category C certificate to work with laboratory animals.
- has a European driving license (category B)
- is ambitious, practically skillful, able to work in a team setting, and have strong analytical problem-solving skills (creative, critical, and open-minded).
- has excellent oral and written communication skills, and are proficient in English.
- is driven to explore research questions independently and in depth.
- has a strong publication record
- is good at motivating and supervising junior researchers

HOW TO APPLY

Apply online through the e-recruitment system (<https://www.ugent.be/en/work>) before the application deadline (January 28, 2022). We do not accept late applications or applications that are not submitted through the online system.

Your application must include the following documents:

- In the field 'CV': your CV and an overview of your study results (merged into one pdf file)
- In the field 'Cover letter': your application letter in pdf format
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- In the field "other documents": two references or reference contacts, an overview of your study results, ...

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