### ANIMAL SCIENCE DOCTORAL PROGRAMME VI WORKSHOP

# 13<sup>th</sup> SEPTEMBER 2019

Salão Nobre, ICBAS-UP Rua de Jorge Viterbo Ferreira No 228

# Porto, Portugal

<u>Free</u> but mandatory registration link: <u>https://forms.gle/D5DMACMJPwREannu7</u>

### About the Animal Science Doctoral Programme

The Doctoral Programme in Animal Science aims to promote advanced training in the field of Animal Science through research. This programme was designed to achieve levels of excellence, with the supervision of researchers associated with research institutions, including several associated laboratories of recognized merit at national and international levels in the different specialities of Animal Science.

The Instituto de Ciências Biomédicas de Abel Salazar (ICBAS) is recognized for its multidisciplinary characteristics within the Life Sciences, which is reflected in its innovative educational, scientific and cultural project, that presided over the formation of the institution. Being the only Portuguese School which offers courses in parallel with the Medicine and Veterinary Medicine, along with many others in the fields of biochemistry, of Bioengineering and Aquatic Sciences, ICBAS is particularly well placed to effectively contribute to the new challenges of Animal Science: the production of safe food, sustainably and efficiently healthy and free of waste, ensuring that the animal production techniques used meet the animal welfare and the environment.

The SANFEED Programme (Sustainable Animal Nutrition and Feeding) is a Doctoral ANIMAL SCIENCE Programme in an industrial setting funded by the Portuguese Foundation for Science and Technology (FCT) that started in the academic year of 2014/2015 and is coordinated by ICBAS from the University of Porto. SANFEED establishes a unique collaboration between three exceptionally strong R&D institutions of international excellence in the University of Porto (ICBAS, CIMAR & REQUIMTE), and ten highly selected industrial partners with strong R&D ALGAplus, activity (AGROS. Allmicroalgae, Alltechaditivos, CAVC, INVIVONSA PORTUGAL, Premix, Sea8, SenseTest, Soja de Portugal and SPAROS).





### AGENDA

#### 09:00 • PARTICIPANTS RECEPTION

#### 09:30 • WORKSHOP OPENING

### Scientific Committee Doctoral of the Programme in Animal Science:

Luísa Valente (CIIMAR/ICBAS-UP) António Mira da Fonseca (REQUIMTE/ICBAS-UP) Ana Rita Cabrita (REQUIMTE/ICBAS-UP) Benjamin Costas (CIIMAR/ICBAS-UP) Leonor Nunes (CIIMAR)

# Accompaniment Committee Doctoral of the Programme in Animal Science:

Luís Mira Vieira (ICBAS-UP) Luís Baião (CIIMAR/ ICBAS-UP/ SENSETEST) Vitor Silva (CIIMAR/ ICBAS-UP/ SORGAL)

### SESSION I

**Chairpersons:** Inês Campos (CIIMAR/ICBAS-UP) & Elisabete Matos (SORGAL)

**09:45** • **Plenary lecture:** Organic aquaculture, *Sachi Kaushik* (Universidad de Las Palmas de Gran Canaria-ULPGC)

**10:15** • Defatted Tenebrio molitor larvae meal as fishmeal substitute for European seabass, *Ana Basto (CIIMAR/ICBAS-UP)* 

**10:30** • Interactions in the biofilm of a recirculating aquaculture unit and their role in fish welfare and environmental sustainability, *Diana Almeida (CIIMAR/ICBAS-UP/Sea8)* 

**10:45** • Dietary arginine and citrulline modulate the gilthead seabream (*Sparus aurata*) immune-related gene expression and plasma proteome signature, *Lourenço Ramos-Pinto* (*CIIMAR/ICBAS-UP/SPAROS*)

**10:55** • Impact of dietary carotenoids on consumers' acceptance of the sea urchin *Paracentrotus lividus, Luís Baião* (*CIIMAR/ICBAS-UP/SENSETEST*)

#### 11:05 • COFFEE BREAK & POSTER SESSION

**11:45** • Effects of short-term feeding micro and macroalgae supplemented diets in innate immunity and oxidative status of *Sparus aurata* juveniles, *Bruno Reis* (*CIIMAR/ICBAS-UP/SPAROS/SORGAL*)

**12:00** • Dietary methionine and tryptophan seem to play a different modulatory role in the European seabass (*Dicentrarchus labrax*) immune response, *Marina Machado* (*CIIMAR/ICBAS-UP/i3S/IBMC*)

**12:15** • Improving growth performance of fish larvae through supplementation of antioxidants, *Maria Xavier (CIIMAR/ICBAS-UP/CCMAR/SPAROS)* 

**12:25** • Effect of dietary supplementation with by-products of *Gracilaria sp.* on growth, fillet preservation and colour of gilthead seabream (*Sparus aurata*), *Francisca Silva-Brito* (*CIIMAR/ICBAS-UP/Alga+*)

**12:35** • Expression of LC-PUFA metabolism genes in juvenile tambaqui (*Colossoma macropomum*) fed different dietary lipid source and levels, *Renato Ferraz* (*CIIMAR/ICBAS-UP*)

**12:45** • Effects of therapeutic dietary administration of oxytetracycline in Nile Tilapia (*Oreochromis niloticus*), *Carla Teixeira* (*CIIMAR/ICBAS-UP/SPAROS*)

### 13:00 • LUNCH & POSTER SESSION SESSION II

**Chairpersons:** *Margarida Maia (REQUIMTE/ICBAS-UP) & Ingrid Van Dorpe (Premix)* 

**14:00 • Plenary lecture:** Biomarkers for feed efficiency based on the rumen microbiome and N isotope fractionation, *Richard Dewhurst* 

**14:30** • Effects of yeast derived beta-glucans and digestion products of microalgae on bovine leukocytes and its correlation with bovine Dectin-1 expression, *Rita Pedro* (*i3S/IBMC/REQUIMTE/LAQV/ICBAS-UP/CAVC/Wisium*)

**14:45** • Development of a methodology for the characterization of volatile and non-volatile compounds in biological samples of Holstein dairy cows, *Liliana Cordeiro (REQUIMTE/LAQV)* 

**15:00** • Improving lysine bioavailability in dairy cows: what comes after the rumen?, *João Albuquerque* (*REQUIMTE/LAQV/ICBAS-UP*)

**15:15** • Microbiome in poultry: influence of nutritional factors, *Vitor Silva (CIIMAR/ICBAS-UP/SORGAL)* 

**15:30** • Effect of management system and lactation stage on composition of faecal microbial community and volatile organic compounds and ammonia production by dairy cattle, *Ana Raquel F. Rodrigues (REQUIMTE/LAQV/CITAB/ICBAS-UP)* 

### 15:40 • ROUND TABLE 'Our future: Sustainable Intensification of Livestock Production Systems

Chairpersons: Jorge Dias (SPAROS)

Participants: Sachi Kaushik (ULPGC) Richard Dewhurst (Dairy Research Centre-SRUC) Jaime Piçarra (IACA) Lourenço Ramos-Pinto (CIIMAR/ICBAS-UP/SPAROS)

### 16:50 • BEST POSTER AND ORAL PRESENTATION AWARDS

Jury: Maria Teresa Dinis (CCMAR-UALG) Alfredo Teixeira (ESA-IPB)

### 17:00 • WORKSHOP CLOSING

### POSTER SESSION

Dietary arginine and citrulline modulate the gilthead seabream (*Sparus aurata*) immune-related gene expression and plasma proteome signature, *Lourenço Ramos-Pinto* (*CIIMAR/ICBAS-UP/SPAROS*)

Impact of dietary carotenoids on consumers' acceptance of the sea urchin *Paracentrotus lividus, Luís Baião (CIIMAR/ICBAS-UP/SENSETEST)* 

Improving growth performance of fish larvae through supplementation of antioxidants, *Maria Xavier (CIIMAR/ICBAS-UP/CCMAR/SPAROS)* 

Effect of dietary supplementation with by-products of *Gracilaria sp.* on growth, fillet preservation and colour of gilthead seabream (*Sparus aurata*), *Francisca Silva-Brito* (*CIIMAR/ICBAS-UP/Alga+*)

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Effect of management system and lactation stage on composition of faecal microbial community and volatile organic compounds and ammonia production by dairy cattle, *Ana Raquel F. Rodrigues* (*REQUIMTE/LAQV/CITAB/ICBAS-UP*)

Dog nutrition: the anti-inflammatory effect of dietary organic selenium, *Ana M. Pereira* (*REQUIMTE/LAQV/ICBAS-UP/SORGAL/Alltech*)

Lessons learned: a misestimation of hair cortisol measurement, *Alexandre Azevedo (ICBAS-UP/Leibniz)*