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NEWSLETTER

15TH OF SEPTEMBER, 2011

EGS-ABG 2011-2015

Fellowship holders

AMUZU Esinam

DUCHEMIN Sandrine

ESFANDYARI Hadi

HAMZIC Edin

HIDALGO Andre

JIMENEZ MENA Bélen

MORERI Utlwanang

SCHWOCHOW Doreen

VAN DER BERG Irene

Externally-funded

ROVERE Gabriel

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THE COORDINATOR'S WORD

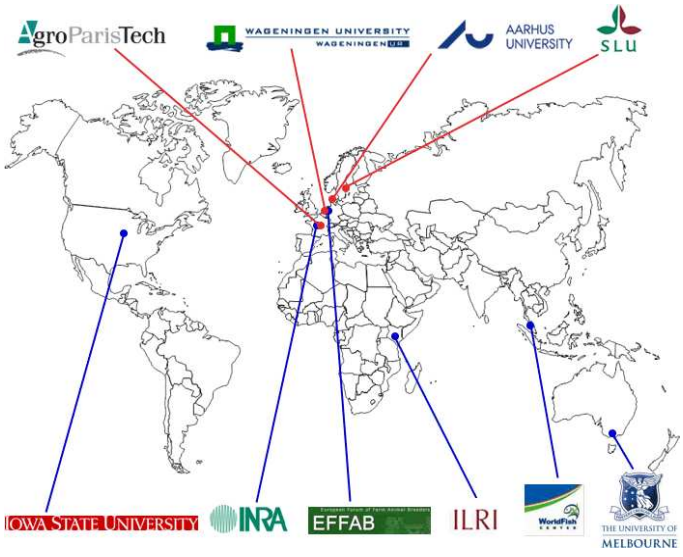
Etienne Verrier
EGS-ABG Coordinator

The European Graduate School in Animal Breeding and Genetics (EGS-ABG) has been accredited in November 2010 by the European Union as an Erasmus Mundus Joint Doctorate program. Four higher education institutions are Partners in this program, with six Associated Partners (see map).

In this first issue of the EGS-ABG Newsletter, a brief presentation of the first group of doctoral candidates is available. These candidates originate from 9 different countries and 4 different continents, which highlights the international and multicultural aspect of the program. They will meet in a first course "Welcome to EGS-ABG" which will take place in Paris, at the end of September.

The PhD projects focus on four categories of topic: (i) Methodology of genomic selection / Crossbreeding (3 projects), (ii) Breeding plans and population management (2), (iii) Genetic factors of robustness or disease resistance (2), and (iv) Genetic factors of other traits (3). Four projects focus on poultry, two on dairy cattle, one on pigs, one on horses and two are not species oriented.

On behalf of the EGS-ABG consortium, I am glad to thank the funders of the first group of doctoral candidates: the European Commission, via Eramus-Mundus 3-year fellowships; breeding companies or organizations, namely, Apis-Gene, Cobb-Vantress, CRV, Hendrix Genetics, IPG and the Dutch Warmblood Studbook; national academic bodies, namely, Aarhus University/Graduate School SAFE, INRA Animal Genetics Division and the Swedish Research Council.



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THE DOCTORAL CANDIDATES FOR 2011-2015 AND THEIR PHD PROJECT

AMUZU Esinam Nancy

« **Utilizing non-additive effects in genomic cross-breeding schemes of laying hens** », *Wageningen University –Swedish University of Agricultural Sciences*

« I have a BSc in Zoology from the University of Ghana, Legon and a MSc in Animal Breeding and Genetics from the University of Natural Resource and Applied Life Sciences of Vienna and the Norwegian university of Life Sciences of Aas.
My main interests are statistical genetics, genomic selection and optimization of breeding programmes ».

JIMENEZ MENA Bélen

« **Comparative analysis of estimators of the effective population size** », *AgroParisTech–Aarhus University*

« My name is Belén and I come from Spain. I studied Biology degree and a MSc in Conservation Biology, both at Universidad Complutense de Madrid. I am interested on the genetic conservation of animal species and the project I will develop will contribute greatly to this issue, among others. We will compare the multiple methods for the estimation of the effective population size parameter, in order to get a better understanding of the methodologies and to improve the management of genetic resources ».

HIDALGO Andre

« **Genetic analysis of performance traits in pigs: exploiting genomic information** », *Wageningen University–Swedish University of Agricultural Sciences*

« I am Brazilian, I have a Bachelor in Animal Science from the Universidade Estadual de Maringá and a Master in Genetics and Breeding from the Universidade Federal de Viçosa.
I worked with QTL fine mapping during my master and I will work with genetic analysis of performance traits in pigs during my PhD ».

SCHWOCHOW Doreen

« **Molecular identification of colour gene patterns in birds** », *Swedish University of Agricultural Sciences–Aarhus University*

« I studied Biology at the University of Potsdam, Germany and graduated in 2007 conducting my thesis research at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany.
I am interested in how evolution acts on the genome and how this is changing the complex interplay between genotype and phenotype. In my PhD thesis I am approaching this fascinating topic by investigating the genetic basis of color pattern genes in birds ».

HAMZIC Edin

« **Innate and adaptative immune parameters controlling response to coccidiosis in chicken** », *AgroParisTech-Aarhus University*

« I am from Bosnia and Herzegovina. I have graduated from veterinary medicine at University of Sarajevo where I finished my internship. In 2009 I got Erasmus Mundus Scholarship for European Master in Animal Breeding and Genetics which I finished this summer. My PhD project is concerned with deciphering the genetic parameters underlying the immune response of chicken to coccidiosis ».

MORERI Utlwanang

« **Genetics of robustness in laying hens** », *AgroParisTech–Wageningen University*

« I am from Botswana. I have a BSc in Animal Science (University of Botswana) and a MSc in Animal Breeding and Genetics (University of Natural resources and Applied life Sciences in Vienna and Swedish University of Agricultural Sciences). I worked as an Agricultural Research Officer in the Department of Agricultural Research in Botswana ».

VAN DEN BERG Irene

« **Use of whole sequence data in genomic selection of dairy cattle** », *AgroParisTech–Wageningen University*

« I am from the Netherlands, where I studied Animal Sciences at Wageningen University. During my Master, I specialised in animal breeding and genetics. My PhD project will be the use of whole sequence data in genomic selection of dairy cattle ».

ROVERE Gabriel

« **Sport horses : breeding specialists from a single breeding program?** », *Wageningen University–Aarhus University*

« I'm from Uruguay, where I obtained a MSc in Animal Science at the University of the Republic. Putting into practice my expertise on Animal Breeding, I have worked in developing recording data systems, running genetic evaluations and definition of breeding objectives ».

DUCHEMIN Sandrine

« **Genetic analysis of bovine milk-fat composition** » *Wageningen University–Swedish University of Agricultural Sciences*

« Hello, I am Sandrine Duchemin. I am a Brazilian veterinarian with Msc in Animal Breeding and Genetics. Former EM-ABG student, I am motivated and looking forward to work in this new project ».

ESFANDYARI Hadi

« **Strategies for using genetic interactions in genomic breeding programs for cross-bred performance** », *Aarhus University–Wageningen University*

« I am from Iran. I have BSc degree in Animal Science. I received my MSc degree in Animal Breeding and Genetics from University of Tabriz in 2009. I look forward to become a part of the research community where I can share my perspectives and gain skills and experience ».

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ERAMUS MUNDUS

Erasmus Mundus is a cooperation and mobility programme aiming at promoting European Higher education by attracting outstanding students from all continents. The Erasmus Mundus Joint Doctorates (EMJD) are poles of excellence in specific research areas.

EGS-ABG, as any EMJD, offers double/multiple or joint degrees to the candidates who have successfully completed it, as well as a fellowship programme.

The European agency in charge of EGS-ABG (the Education Audiovisual and Culture Executive Agency) has approved on the 15th of April the ten candidates proposed by the EGS-ABG Consortium. The candidates were selected among 114 applications.

These candidates will carry out a PhD thesis for four years and will train in their field of study. All PhD projects implement a joint supervision and a mobility in at least two of the four universities of the Consortium. An internship period of three to six months, in industry or in one academic associated partner, is also encouraged.

The training includes advanced scientific courses, which may be "in-depth" studies directly useful for the PhD project or "broadening" courses on expertise areas other than the field of their own PhD.

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Ongoing Selection Process

◊ **May-June, 2011**

Call for PhD projects

◊ **July-Aug, 2011**

Project evaluation by independent experts

◊ **Sept-Nov, 2011**

Publication of the selected projects, call for candidates

◊ **Dec-Feb, 2011**

Validation of applications, interviews of the best applicants, selection

◊ **March 2012**

Publication of the main list of doctoral candidates and of the reserve list

◊ **September 2012**

Start of the PhD projects

INTRODUCTORY COURSE

The newly selected doctoral candidates will gather for the first time in the end of September 2011 for the Introductory Course, held in Paris.

The EGS-ABG doctoral candidates are spread in the four universities of the Consortium. This Introductory course will be a good opportunity for them to get to know each other, meet the Consortium members and discuss their respective PhD projects. Other joint activities for all doctoral candidates will be offered, notably Summer Research Schools.

From Monday 6th of September to Friday 30th, they will benefit from lectures and presentations designed to introduce them to EGS-ABG and to bring them additional reflexion on Animal Breeding and Genetics.

A full day of lectures by four INRA speakers is organized on Tuesday 27th. F. Hospital will open the day with a lecture intitled « *What "really" happens when we select?* ». He is followed by D. Boichard - « *Will genomic selection "save the world"?* », F. Minvielle - « *Animal breeding - past and future, history, people, milestones* » and E. Devinoy - « *Epigenetics: why animal breeding is concerned?* ».

Invited speakers from other institutions will also join the Introductory Course, such as M. Neuteboom (EFFAB), who will be introducing the doctoral candidates on « *Who's who in animal breeding* » and A. Ickowicz (CIRAD), on « *Livestock production and environment* ».

The week will cover fundamental topics for the doctoral candidates about to start research in Animal Breeding and Genetics. Ethics in Animal Breeding is also one of those points, and will be discussed by P. Sandoe (CeBRA).

Alongside the lectures, the doctoral candidates will have the opportunity to enjoy a private visit of the National Natural History Museum of Paris.

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