

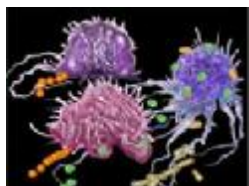
EDITORIAL

This is the fourth EADGENE Newsletter. Angela van der Sanden has now taken over the editorial of the EADGENE Newsletter. We would like to thank Ton van Erp for his contribution to the Newsletters.

In this newsletter the Industry-Academia days and a genomic's course for breeding industry are summarized.

Also the functional genomics of host pathogen interactions and the importance of communicating to the public are discussed.

Angela van der Sanden



Host Pathogen interactions Functional Genomics

Food safety and the quality of food are an important issue on which the nature of host pathogen interactions can have a great impact. The nature of the interactions between host (e.g. pig) and microbe (pathogen; e.g. salmonella) determines the outcome of the contact between host and microbe: for example, elimination of the microbe, colonization of the microbe causing disease, but also colonization without causing disease. Several specific host-pathogen relationships receive special attention in the EADGENE Joint Research Programme, where, among others, groups of scientists from several laboratories are working around specific subjects using so-called 'functional genomics' approaches. Functional genomics is the analysis of the function of the genes of an organism. The group focuses on pathogens that can form a threat for the safety and quality of food derived from cattle, swine, chicken and/or Atlantic salmon.

[read more: at www.eadgene.info/newsletter.html](http://www.eadgene.info/newsletter.html)

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"GENO-cartoon"

Industry-Academia days in Hinxton (UK)

EADGENE organized an industry-academia event in cooperation with EFFAB and Genesis Faraday from 19 to 21 October 2005 at the Sanger Campus in Hinxton (UK). The annual meetings of Genesis Faraday and EFFAB allow industry representatives in animal breeding and animal health to take a first glance at the EADGENE project and its possibilities, organized around joint industry-academia talks, funding information, posters and a discussion about the future of animal breeding.



The event kicked off with a full-day course "Genomics Applied to Livestock Breeding". The basics of genomics up to several interesting applications of genomics in breeding were discussed.

Thursday and Friday were reserved for the conference, including a funding and poster market.

[read more: at www.eadgene.info/newsletter.html](http://www.eadgene.info/newsletter.html)

In the picture

Dr. Ingrid Olsaker is Research scientist at the Norwegian School of Veterinary Science, Department of Basic Sciences and Aquatic Medicine, Division of Genetics



Ingrid graduated as "Cand real" (PhD) in Molecular Genetics in 1980 from the Faculty of Mathematics and Natural Sciences, University of Oslo, and she began her scientific career at the Department of General Genetics, University of Oslo working on the genetics of transformation and antibiotics resistance in the bacterium *Neisseria meningitidis* (the meningococcus). In 1986 she moved to the Norwegian School of Veterinary Science and changed subject to ruminant genetics. Ingrid participated in the development of bovine VNTR markers (before the microsatellites) during a 7-month stay at the company GenMark in Salt Lake City, U.S.A. in 1989 with Dr. Michel Georges, University of Liege. Ingrid had European experience from 1993 onwards through participation in several EU projects (bovine genome mapping, bovine biodiversity, bovine and ovine prion disease) and experience in management of Nordic – Baltic collaborative projects on cattle and sheep biodiversity. She teaches basic genetics and molecular genetics / genomics on all levels. At the present time she oversees the tuition of three PhD students. Her current research interests are: Ruminant genomics, identification and functional analysis of genes involved in health traits (disease resistance) and reproduction of cattle and sheep.

Ingrid is married to Björn (also a scientist in genetics). They have no children. Her hobbies are: Physical exercise, mountain hikes, fishing, friends, photography, reading fact and fiction (novels and short stories) and handicraft.

Her personal challenge: Avoid working on science continuously and make space for family and other activities.

In the Society & Genomics Newsletter (nr. 6, October 2005). The following article was published. Remark made by editor: The people in the survey used in this article are not representative of the general public.

The importance of public communication

“Public communication”, according to the visitors of the Genomics Momentum 2005, is the major issue raised by genomics research. At least 24% of the 750 guests participated in a short survey, carried out by CSG (Centre for Society and Genomics).

Genomics Momentum is a yearly event, organized by the Netherlands Genomics Initiative. It is visited by the genomics research community, industry, NGO's and government representatives. At the entrance of the 2005 event (The Hague, 5 October), CSG carried out a survey among 180 respondents. CSG—staff members and researchers asked the visitors which societal question or societal problem, raised by genomics, they think is most important or most pressing.

According to 23% of respondents, public communication was the main issue. Typical answers were: *“Genomics research has to deal with a reluctant public”* and *“We have to create public understanding to reduce fear and to gain trust.”* The remaining answers also were very diverse. Health was the second best theme. Some respondents indicated that genomics will make mankind healthier, happier and older: *“Our health will benefit from genomics research”*. Others wondered if genomics really improves the quality of life, raising questions about privacy, the boundaries of research, *“How far can we go”*, and genetic discrimination. [read more: www.eadgene.info/newsletter.html](http://www.eadgene.info/newsletter.html)

For more information. www.society-genomics.nl

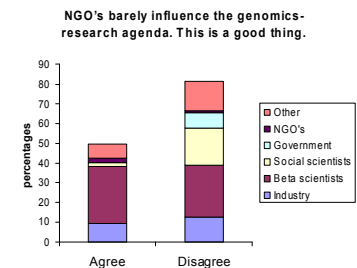


Figure 1. Voting results, divided by discipline

Genomics Applied to Livestock Breeding - Introduction and Practical Examples

EADGENE organized a genomics' course for the animal breeding industry. A survey among the Club of Interest in the Spring of 2005, showed that ca. 50% of the Club of Interest members were interested in a one-day course on genomics for people in the breeding industry. The course offered took place on 19 October 2005 prior to the Industry – Academia Days 2005 on Genetics and Genomics for Animal Health in Hinxtton.

The course was divided into 'The Basics of Genomics in Breeding' (morning) and 'Application of Genomics in Breeding' (afternoon).

In *'The Basics of Genomics in Breeding'* (Dr. Cecilia Oram, Genesis Faraday) DNA, genes, SNP's and QTL's were explained in a clear way. This was illustrated by answering the questions: "How do SNP's and QTL relate to animal characteristics?" and "How can I use genetic tests to identify parents?"

In the *'Application of Genomics in Breeding'* (Dr. Sandrine Lagarrigue, Dr. Pascale LeRoy and Dr. Madeleine Douaire, INRA) part of the course the usage of genomic tools of markers and QTL was discussed. [read more: http://www.eadgene.info/newsletter.html](http://www.eadgene.info/newsletter.html)

