



Genomics for Animal Health

4th - 8th June 2007
Utrecht, The Netherlands



The EU-funded projects **SABRE** (Cutting Edge Genomics for Sustainable Animal Breeding) and **EADGENE** (European Animal Disease Genomics Network of Excellence) would like to invite you to their joint meeting on "Genomics for Animal Health" from 4th - 8th June 2007 in Utrecht, The Netherlands. This five day event will focus on the latest genetics and genomics research in the field of farm animal health, through a joint 2-day conference which will be preceded and followed by a series of satellite workshops and meetings.



Genomics for Animal Health: Joint SABRE and EADGENE conference

Tuesday 5th June 14:00-18:00 and Wednesday 6th June 08:30 - 16:00 (Open to all)

This 2-day conference features a series of presentations by keynote speakers and leading specialists in their fields which will update delegates on the latest genetics and genomics research in udder health, gut health and functionality, genome wide selection, microarray analyses, and new genomics tools and technologies.

Satellite Workshops

From Infection to Inference: Interpreting Animal Health and Disease Data

Monday 4th June 14:00 – 18:00 and Tuesday 5th June 08:30 - 11:00 (Open to all)

E. coli and Salmonella workshop

Thursday 7th June 08:30 – 17:30 (Open to all)

FABRE-TP discussion meeting

Thursday 7th June 09:30 – 12:30 (Open to all)

Genomics for Robust Cows workshop

Friday 8th June 10:00 – 17:00 (Open to all — located in Lelystad, The Netherlands)

SABRE Consortium meeting

Tuesday 5th June 11:00 - 13:00 (SABRE members only)

At the SABRE Consortium meeting the management of the project will be addressed and several Work Packages will present the plans and activities for the coming year. Active participation and discussion by SABRE partners is welcomed.

Work Package Meetings (WP members only)

EADGENE WP1.4 Analytical Tools

Monday 4th June 18:00 - 19:00

SABRE WP6 Fertility and Reproduction

Tuesday 5th June 08:30 – 11:00

SABRE WP8 Animal Well-Being

Tuesday 5th June 08:30 – 11:00

EADGENE WP6 Population Genomics

Tuesday 5th June 18:00 - 20:00

SABRE WP1 Numerical Genomics

Wednesday 6th June 16:30 – 18:30

EADGENE WP1.3 & WP5, SABRE WP3

Bioinformatics/Structural Genomics

Thursday 7th June 08:30 - 12:30

SABRE WP5 Mammary Function

Thursday 7th June 08:30 – 12:30

EADGENE WP8 Operational Genomics

Thursday 7th June 12:30 - 14:00

Further information and registration

Registration for this event is free. Further information, programme updates and the **registration form** are available at www.sabre-eu.eu and www.eadgene.org. Please note that the deadline for registration is **30th April 2007**, however several of the workshops have a limit on the number of participants, so registration at your earliest convenience is recommended.



This event represents the views of the Authors, not the EC.
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The organisers reserve the right to alter the programme at any time.



Food Quality and Safety

Genomics for Animal Health: Joint SABRE and EADGENE conference



Tuesday 5th June 14:00-18:00
Wednesday 6th June 08:30 - 16:00
Utrecht, The Netherlands



The EU-funded projects SABRE and EADGENE will join forces to present a joint meeting on “Genomics for Animal Health.” The programme for the 2-day conference will concentrate on topics of interest to both SABRE and EADGENE members. The meeting will feature plenary lectures by keynote speakers on new genomics tools and technologies, udder health, gut health and functionality.

SABRE: Thirty three leading animal breeding research groups and businesses have joined forces in “SABRE – Cutting Edge Genomics for Sustainable Animal Breeding”. SABRE is a four-year, €23 million pan-European project which utilises the latest techniques in genetic science to develop more economically and environmentally sustainable production systems for cattle, pigs and chickens. The project is designed to provide a range of new breeding strategies to improve animal health and welfare, reduce chemical and energy inputs, minimise livestock waste and pollution, and maximise food safety and quality.

EADGENE: The European Animal Disease Genomics Network of Excellence for Animal Health and Food Safety (EADGENE) coordinates a genomics approach to the unravelling of host-pathogen interactions, thereby providing the basic knowledge necessary for the development of new or improved therapeutics and vaccines, improved diagnostics, and the breeding of farm animals for disease resistance. This research will impact upon human health and lifestyle choices by concentrating on pathogens of importance in the food chain and will help ensure that Europe retains its status as a world leader in animal health for years to come.

Tuesday 5th June 14:00-18:00 (Open to all)

- Genomics tools and technologies
- Microarray analyses
- Genome wide selection
- Results of SABRE and EADGENE mobility programmes

Evening events

- Poster session
- Conference dinner



Wednesday 6th June 08:30 - 16:00 (Open to all)

Udder health:

- *Staphylococcus aureus*: virulence, pathogenesis, vaccines
- Innate immunity of the bovine mammary gland
- Mammary defence mechanisms
- Genetic factors influencing mastitis susceptibility

Gut health and functionality:

- Intestinal health: virulence mechanisms
- Functional genomics studies in chicken, pigs, cattle
- Genetic factors influencing gut health

Further information and registration

Registration for this event is free. Further information, programme updates and the registration form are available at www.sabre-eu.eu and www.eadgene.org.



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Food Quality and Safety



Genomics for Animal Health: Satellite Meetings

4th - 8th June 2007
Utrecht, The Netherlands



Please note that these satellite meetings are open to all, but some have a limit on the number of participants, so early registration using the "Genomics for Animal Health" registration form is recommended. The programmes for these meetings and an abstract submission form for the *E. coli* and Salmonella workshop will be made available at www.sabre-eu.eu and www.eadgene.org. Further information can be obtained from the contact email addresses.

From Infection to Inference: Interpreting Animal Health and Disease Data

Monday 4th June 14:00 – 18:00 and Tuesday 5th June 08:30 - 11:00 (Open to all)

This Workshop aims to facilitate the dialogue between disease experts and specialists in data analysis in order to learn each others terminology, and to identify common ground, as well as caveats. We will focus on three contrasting disease categories: mastitis, gut health (e.g. *E. coli* or salmonella infections) and nematodes. For each topic we have invited disease experts, who will provide an overview of the disease and describe the nature of the traits resulting from the disease, as well as statistical specialists who will highlight issues arising from the disease trait data and will present potential state-of-the-art solutions which take into consideration the needs of disease specialist. Interactive group discussions will probe the issue and come up with research questions, recommendations and possible solutions. This will be a truly cross-fostering workshop in which experts from different fields will learn from each others' experiences.

Organisers: D.J. de Koning, M.H. Pool, H. Bovenhuis, S. Bishop, C. Channing (caroline.channing@bbsrc.ac.uk)



E. coli and Salmonella workshop

Thursday 7th June 08:30 – 17:30 (Open to all)

The sequencing of the genomes of several bacterial species, including pathogens, opened the post-genomic era of medical bacteriology. Today we can compare not only the genomes of different pathogenic and non-pathogenic strains of the same bacterial species, but also the expression of putative virulence genes in different growth conditions, in a cellular growth media or in contact with eucaryotic cell in culture, using microarrays. The contribution of microbial genomics to the understanding of bacterium-host inter-relationships is the main theme of this workshop, which takes *Salmonella enterica* and enterohaemorrhagic *Escherichia coli* (EHEC) as examples of the power of these new tools. Abstract submissions are invited for oral presentations and posters, using the form provided on www.sabre-eu.eu and www.eadgene.org.

Organisers: J. Mainil (jg.mainil@ulg.ac.be), E. Oswald, A.M. Rebel



FABRE TP discussion meeting

Thursday 7th June 09:30 – 12:30 (Open to all)

The Farm Animal breeding and Reproduction Technology Platform, FABRE TP, brings together a wide range of interested parties (currently 79 organisations) to produce and implement a Strategic Research Agenda (SRA) based on a joint Vision of how animal breeding might develop in the next 20 years. The FABRE TP and the Vision Paper were launched in March 2006. The SRA aims to help inform research funding policy for the farm animal breeding sector at the European, national and regional levels, e.g. EU Framework 7 Programme and beyond. This meeting provides an opportunity to learn more about FABRE TP, and to discuss the draft SRA and research priorities indicated by 13 European expert groups. Please visit www.fabretp.org to view the Vision Paper, the latest draft of the Strategic Research Agenda, the expert groups and the country discussion schedule.

Organisers: A.M. Neeteson, A. van der Sanden (angela.vandersanden@effab.info)

Genomics for Robust Cows workshop

Friday 8th June 10:00 – 17:00 (Open to all - This workshop will take place in Lelystad, NL)

With the completion of the cattle genome sequencing, a wealth of opportunities will open up to improve the health and fertility of the modern dairy cow. This includes techniques and tools in the area of fine mapping individual genes and genetic selection, but genomics is likely to have broader applications than genetic selection: for example in the areas of nutrigenomics, sensors and monitoring. This workshop brings together specialists and fore-runners in the area of (functional) genomics, fine mapping, genotyping and robustness of dairy cows. It will set out the agenda for future research, identifying current gaps in our knowledge and bottlenecks for the application of genomics in animal breeding.

Organiser: J. Windig (Jack.Windig@wur.nl)



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Food Quality and Safety



Genomics for Animal Health: Work Package Meetings

4th - 8th June 2007
Utrecht, The Netherlands



Please note that the SABRE and EADGENE Work Package meetings are **open to work package members only**. Further information on the meetings can be obtained from the enquiry email addresses.

Please fill out the "Genomics for Animal Health" registration form if you wish to attend any of these meetings.

EADGENE WP1.4 Analytical Tools

Monday 4th June 18:00 - 19:00

EADGENE WP1.4 seeks to integrate the "tools" for complete interpretation of host-pathogen studies, including the definition of biological models, analysis of data, estimation of parameters, implementation strategies and prediction of outcomes.

EADGENE WP1.4 participants only.

WP Leader: Dirk-Jan de Koning (Roslin)

Enquiries to: Caroline.Channing@bbsrc.ac.uk

SABRE WP1 Numerical Genomics

Wednesday 6th June 16:30 - 18:30

SABRE WP1 will develop statistical tools and software approaches to underpin livestock genomics and to enable delivery of the results through the breeder to the consumer.

Brief update on progress and any emerging issues. WP1 participants only.

WP Leader: Chris Haley (Roslin)

Enquiries to: Chris.Haley@bbsrc.ac.uk

SABRE WP6 Fertility and Reproduction

Tuesday 5th June 08:30 - 11:00

SABRE WP6 will generate fundamental knowledge of the genomics of important aspects of reproduction and fertility in large domestic animals. This knowledge will enable the development of successful breeding strategies for improved reproduction efficiency.

SABRE WP6 participants only.

WP Leader: Bonne Beerda (ASG-Lelystad)

Enquiries to: Bonne.Beerda@wur.nl

EADGENE WP1.3 & WP5, SABRE WP3 Bioinformatics and Structural Genomics

Thursday 7th June 08:30 - 12:30

SABRE WP3, and EADGENE WP1.3 and WP5, provide tools and integrate information from available genome sequences of hosts and pathogens of interest to EADGENE's research programme. EADGENE WP1.3, WP5 and SABRE WP3 participants only.

WP Leaders: Martien Groenen (SABRE WP3, EADGENE WP5) (WUR), Christophe Klopp (EADGENE WP1.3) (INRA),

Enquiries to: Martien.Groenen@wur.nl,

Christophe.Klopp@toulouse.inra.fr

SABRE WP8 Animal Well-Being

Tuesday 5th June 08:30 - 11:00

SABRE WP8 aims to determine gene expression responses to stress in pigs and poultry, and detect polymorphisms in candidate genes associated with stress responses and meat quality.

SABRE WP8 participants only.

WP Leader: Pierre Mormede (INRA)

Enquiries to: Pierre.Mormede@bordeaux.inra.fr

SABRE WP5 Mammary Function

Thursday 7th June 08:30 - 12:30

The overall objective of SABRE WP5 is to identify important genes and genetic pathways involved in the immune response to mastitis including those genes that are regulated by previously identified QTL.

SABRE WP5 participants only.

WP Leader: Mogens Sandø Lund (DIAS)

Enquiries to: Mogens.Lund@agrsci.dk

EADGENE WP6 Population Genomics

Tuesday 5th June 18:00 - 20:00

EADGENE WP6 aims to define (and measure) phenotypes in specific populations, provide primary cells or cell lines and investigate genetic epidemiological modelling tools.

EADGENE WP6 participants only.

WP Leader: Catherine Beaumont (INRA)

Enquiries to: Catherine.Beaumont@tours.inra.fr

EADGENE WP8 Operational Genomics

Thursday 7th June 12:30 - 14:00

EADGENE WP8 integrates the joint activities of EADGENE's structural, functional and population genomics work packages and develops plans for the application of results from these activities.

EADGENE WP8 participants only.

WP Leader: Elisabetta Giuffra (PTP)

Enquiries to: Elisabetta.Giuffra@tecnoparco.org



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