

# SABRE's Cutting Edge

## CUTTING EDGE GENOMICS FOR SUSTAINABLE ANIMAL BREEDING

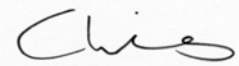
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### Co-ordinator's Introduction

Twelve months in and all is going to plan - well almost! All the work associated with preparing our first annual report and planning the detail of the next 18 of our 48 months provides, as of course it is intended to, a structured way of reviewing how we are doing. Overall it is pleasing to say things have got off to a good start.

Some delays and, shall we call them challenges, are inevitable in a project of this size and complexity, but overall partners have been very accommodating to these challenges and redistribute their work as necessary to get the job done and minimise delays. Within and across work packages it is pleasing to see some good examples of integration, whilst in other areas we can do a better job. If this were an end of term report it would be "Well done team, let's stay focussed to make year 2 one to be proud of."



Chris Warkup - SABRE Co-ordinator

## SABRE's 2nd Annual Conference: Genomics for Animal Health

SABRE's 2nd Annual Conference is being held in co-operation with the EADGENE Network of Excellence, on the theme of "Genomics for Animal Health," from 4th - 8th June 2007 in Utrecht, The Netherlands. The 5-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 satellite workshops and work package meetings.

 **Genomics for Animal Health: Joint SABRE and EADGENE conference**  
5th June 14:00-18:00 and 6th June 09:00 - 16:00 (Open to all), Jacobi Theatre, Utrecht



### SABRE Consortium meeting

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. The main theme will be "Integration", including WP1, WP3, WP11 and WP12. Active participation and discussion by SABRE partners is welcomed.

### Satellite Workshops

**From Infection to Inference....**  
4th June 14:00 – 18:00 and 5th June 08:30 - 11:00 (Full)

**E. coli and Salmonella workshop**  
7th June 09:00 – 17:00 (Open to all)

**FABRE-TP discussion meeting**  
7th June 09:30 – 12:30 (Open to all)

**Genomics for Robust Cows workshop**  
8th June 10:00 – 17:00 (Open to all)

### Work Package Meetings

SABRE WP6 Fertility and Reproduction, 5th June 08:30–11:00

SABRE WP9 Product Quality, 5th June 08:30–11:00

SABRE WP1 Numerical Genomics, 6th June 16:30–18:30

SABRE WP3 Genomics and Bioinformatics, 7th June 08:30-12:30

SABRE WP5 Mammary Function, 7th June 08:30–12:30

### Registration and further information

Registration for this event is free, but places are limited, so we urge anyone who wishes to attend to register as soon as possible to avoid possible disappointment. Further information, the **online registration form**, programme updates, travel and hotel information are available in the events sections of the SABRE website ([www.sabre-eu.eu](http://www.sabre-eu.eu)). Please note that the deadline for registration is **30th April 2007**.

## Integration Between SABRE Work Packages

The Co-ordinator's Introduction (page 1) highlights the idea of integration between SABRE's Work Packages. An excellent example of this type of integration is provided by Work Packages 1 and 3.

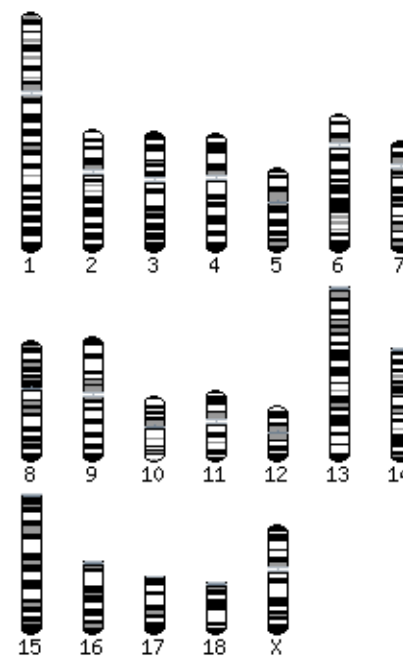
In order to develop breeding tools in Work Packages 4 to 9, SNPs need to be identified which are functional mutations or are in close Linkage Disequilibrium (LD) with functional mutations.

Work Packages 1 (Numerical Genomics) and 3 (Genomics and Bioinformatics), provide the underpinning technologies for Work Packages 4 to 9 to reach this goal. Work Package 3 provides SNPs, LD information, and tools for annotating genes; Work Package 1 focuses on statistical tools and breeding support.

Genome sequences are a key resource in the WP9 development of SNPs. A sequence is now available for the chicken and cattle, and as part of SABRE's WP3 the Wellcome Trust Sanger Institute is well on its way to providing a 6x coverage of two key porcine chromosomes (see box).

Together with genome sequences (from SABRE and elsewhere), a set of bioinformatics tools and concurrent information is needed to fully support Work Packages 4 to 9, including: the in silico mining of SNPs, validation and exchange of information on SNPs, generation of LD maps, and tools to support the annotation of genes. Annotation of genes in animals will largely be based on comparative information, as part of this effort phenotype ontologies will be developed to allow across species data mining. Finally, the focus on functional genomics in Work Packages 4 to 9 is supported by providing tools for pathway analysis.

For further information on the SABRE work packages, please visit our website: [www.sabre-eu.eu](http://www.sabre-eu.eu).



As part of SABRE's WP3 the Wellcome Trust Sanger Institute is well on its way to provide a 6x coverage of Pig Chromosomes SSC7 and SSC14. Daily progress can be viewed at:

[http://pre.ensembl.org/Sus\\_scrofa](http://pre.ensembl.org/Sus_scrofa)

## Two New Egg Contamination Projects

We would like to draw our readers' attention to two new EU Specific Targeted Research Projects (STREPs), which will work in close co-operation with one another and have direct relevance to SABRE.

These two projects focus on contamination of eggs with Salmonella and other infectious agents, which it is believed is not helped by the move to more welfare-friendly egg-production systems for laying hens. For further information please visit their websites: [www.safehouse-project.eu](http://www.safehouse-project.eu) and [www.rescape-project.eu](http://www.rescape-project.eu)

## SABRE On-line Meeting "Webinar" Tool

A webinar is an interactive web-based seminar, presentation, lecture or workshop delivered over the internet. This particular tool allows the presenter to interact and share the information on their computer screen with their colleagues during a conference call. The tool was successfully used to provide training for the annual reporting in the "SABRE Finance Webinar", and we will be trialling the tool with our partners over the next few months.

If you would like to use the webinar on-line meeting tool please contact the SABRE Operations Manager: [Toine.Roozen@genesis-faraday.org](mailto:Toine.Roozen@genesis-faraday.org)

## Calling Early-Stage Researchers

If you are a PhD student, or are in the first 4 years (full-time equivalent) of your research activity, including the period of PhD research training, you are in EU terms an Early-Stage Researcher. If you are involved in the SABRE project or in any way "attached", we want to hear from you so that we can keep you up-to-date with funding opportunities. Please send an email to: [Carol.Didcock@Genesis-Faraday.org](mailto:Carol.Didcock@Genesis-Faraday.org)

## New Pig SNP Panel

As part of the work in WP9 - Product Quality, project participants have now finalised a pig SNP panel of 7.3k informative SNPs on an Illumina (Infinium assay) SNP chip. A high proportion of these SNPs are selected to be in relevant gene regions. The panel will be used for a large scale association study on matched full-sib pairs of pigs selected to be "high" or "low" tissue skatole level. The samples from these pigs are, thanks to the Danish Meat Association, already in the freezer.

For further information on the availability of the pig SNP panel please contact the WP9 Leader [Christian.Bendixen@agrsci.dk](mailto:Christian.Bendixen@agrsci.dk)





## SABRE Gender Action Plan

SABRE Gender Action Plan (GAP) was finally launched in March, after some months of preparation, through the publication of two separate questionnaires to all partners.

Data obtained from a preliminary census carried out at the beginning of the project showed a lower female representation among experienced scientists compared to early stage researchers. Thus, SABRE GAP aims to encourage greater female participation in the project, to increase the number of women developing careers in science and taking on roles at higher levels.

In the light of this, a specific questionnaire was designed and distributed to monitor the percentage of women involved in the project and to gather data, statistics and indicators on gender specific preferences, attitudes, needs and job satisfaction level. A second identical questionnaire will be published again at the end of the Project (January/March 2010) to point out possible (and desirable) changes. The questionnaire was designed in collaboration with *Observa – Science in Society* ([www.observa.it](http://www.observa.it)), an Italian non-profit cultural association which aims at promoting the study and the discussion of the interaction

between science and society, stimulating dialogue among researchers, policy makers and citizens.

Starting from this monitoring action, several measures will be implemented to meet better the needs of both genders. One measure is the establishment of a suitable mentoring environment where experienced scientists will provide support and structured guidance to young researchers (both females and males). In this aim, another questionnaire has been administered to identify interested mentees and potential mentors and design an effective mentoring programme fitting real needs and expectations of SABRE's scientists.



For further information, please contact Elisabetta Giuffra or Simona Palermo at:

[sabre.gap@tecnoparco.org](mailto:sabre.gap@tecnoparco.org).

## “Mind the GAP”

On the occasion of the European Year for Equal Opportunities the Parco Tecnologico Padano (PTP) and FAiR (Fairness and Accountability in Research) are jointly organising the **European Workshop on Gender Equity in Scientific Research “Mind the GAP 2007”** that will be held on June 28<sup>th</sup> at PTP in Lodi ([www.tecnoparco.org](http://www.tecnoparco.org)).

The workshop addresses all members of the scientific field, from young researchers to managers of political and strategic decisions, with the aim of highlighting the “gaps” of opportunities still hampering women's careers. The morning session will be devoted to dissemination of the results of GAPs (Gender Action Plans) and of other measures being carried out in the international scientific context. In particular, E. Giuffra and S. Palermo, the main organisers of the Workshop, will present the results of the GAP that we are developing within SABRE. In the afternoon, many invited speakers, represented by leaders of scientific, sociological and industrial research and of scientific journalism, will be involved in a round table and the discussion will be open to the audience.

Please keep an eye on the SABRE website ([www.sabre-eu.eu](http://www.sabre-eu.eu)) for further details of this conference.

## Funds for Training

As the first year of SABRE comes to a close, the activities in WP11 on Training continue. In the first year, we have allocated funds to various training activities including sponsoring workshops and providing funds for scientist exchanges. Although not all of these have been completed at the moment, we have allocated funds to allow:

- ♦ Two scientists from SABRE organisations (Institute for Pig Genetics, Roslin Institute) to visit another partner (University of Aarhus Faculty of Agricultural Sciences (formerly known as DIAS, see page 4))
- ♦ Two scientists from new Member States (Research Institute of Agricultural Sciences in Bulgaria, Institute of Genetics and Animal Breeding in Poland) to visit SABRE partners (Animal Sciences Group - Lelystad, INRA)
- ♦ One scientist from an INCO country (Ain Shams University in Egypt) to visit a SABRE partner (IRTA)
- ♦ One Early Stage Researcher (Wageningen UR) to visit another SABRE partner (Cordoba University)

In addition, we have given sponsorship money to two workshops. The first of these workshops to take place was provided by INRA in the form of the 11<sup>th</sup> QTL-MAS workshop which was held from 22 - 23 March 2007. The second workshop to receive SABRE training funds is to be provided by the Animal Science Group - Lelystad, and is entitled ‘Genomics for Robust Dairy Cows’. This second workshop will be held on 8<sup>th</sup> June in Lelystad (see page 1), and a programme is available in the events section of the SABRE website.

During the next months, we will be issuing new calls for applications for similar mobility funds for scientists to visit SABRE partners and also to sponsor new workshops. So please look out for future emails and SABRE website announcements about the availability of training funds.



## Consortium News

Many of you will be aware that our Project Officer at DG Research has recently changed.

### Thanks and best wishes to John

Ever since SABRE was a project idea without a name, our main point of contact in DG Research has been **John Claxton**. John has been a steadying hand to guide us through the negotiation stages, the ethical review and all those horrid but important contractual matters.

John has been a great help and as he moves on to new challenges it is only right that we publicly give him our sincere thanks and all our best wishes for the future.



Jean-Charles Cavitte attended the 5<sup>th</sup> SABRE OMG meeting on 26 - 27 February 2007 and will also be joining us at the joint second SABRE Annual Event (see advert on page 1). We look forward to working with him over the next few years of the SABRE project.

### Partner News

There have recently been changes to the names and affiliations of some of SABRE's Partners.

ID-Lelystad is now to be known as Animal Sciences Group - Lelystad, and on 1<sup>st</sup> January 2007 the Danish Institute of Agricultural Sciences (DIAS) joined the University of Aarhus as the Faculty of Agricultural Sciences, while KVL (The Royal Veterinary and Agricultural University in Denmark) became part of the University of Copenhagen.

### Welcoming Jean-Charles Cavitte

We are delighted to welcome **Jean-Charles Cavitte** as SABRE's new Scientific Officer at the European Commission. Jean-Charles Cavitte originally qualified as a Veterinarian (DVM), ideally suiting him for work with projects such as SABRE, EADGENE, FABRE-TP and Med-Vet-Net. In a career that has spanned 20 years, he has worked at the Ministry of Foreign Affairs in Brussels, been a Deputy Director within the French Veterinary Service, and held an Administrator post in DG "Agriculture" and DG "Health and Consumer Protection" within the European Commission. In recent years Jean-Charles has been involved in drafting and negotiating EU legislation on the monitoring and control of zoonoses (in particular salmonella) and on microbiological risks, and in discussions at international level on Animal Health Policy. He moved to DG "Research" in October 2005 to work on biotechnology, agriculture and food as a Senior Administrator in the safety of food production systems unit.

### Early Warning: 2008 Conference

The theme of the 2008 SABRE Conference will be "Welfare and Quality Genomics", and will focus on the work packages not already highlighted in the 2007 event. The conference will take place in Denmark, probably in September 2008.

### Toine's Latest "Deliverable"

We are sure that you will all join us in sending Toine Roozen, the SABRE Operations Manager, and his wife Monika, our sincere congratulations on the birth of his new baby Adriana Gabriella.

### Year-end Reporting Schedule

By now partners should have submitted the following details:

- Their input to WP Leaders to complete the Detailed Implementation Plan for Annex 1
- Their revised Pre-financing tables
- Where relevant any changes/amendments/additions to the Subcontracting and Third Parties tables.
- Their Periodic Management Report and Form C.
- Their input to WP Leaders to complete the Activity Report

If you have not submitted the necessary information to meet the above deadlines please do so as soon as possible to ensure we meet the following deadlines:

- Audit Certificates – 2<sup>nd</sup> May (only those partners exceeding 150,000 EUROS in M0-12)
- Submission of Reports to EU (14th May): Activity Report, Periodic Management Report, Revised Annex 1 (Draft Implementation Plan), and Deliverable Reports.

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Your comments and contributions are welcome

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