



Network News

Volume 4, Issue 3

Editors' Introduction

In this edition of Network News we focus on the 4th annual EADGENE days, with a full report of the conference.

We are also taking the opportunity highlight the EADGENE website and the Partner Intranet as useful resources, for which we strongly encourage all Partners to register. We provide information on some communication tools to enhance your project meetings. Finally, as we are now approaching the end of EADGENE's 4th year, we give important updates on this year's annual reporting timetable in our Management Communications.

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EADGENE days 2008

EADGENE was delighted to welcome over 140 delegates to the 4th EADGENE conference, which this year was held on the theme of "Animal Disease Genomics: Opportunities and Applications" in Edinburgh, UK.

The 4-day event started on **Monday 9th June** with several EADGENE workpackage meetings, including WP1.1 (Biological resources and facilities), WP6.1 (Population genomics), the Salmonella Working Group, the Industrial Property Use and Dissemination Committee (IPUDC), and EADGENE's Governing Council.

The **main conference** sessions took place on **Tuesday 10th and Wednesday 11th June**. The EADGENE Co-ordinator, Marie-Hélène Pinard van der Laan (INRA), opened the conference with an introduction to the EADGENE project. She emphasised the progress made by EADGENE in its first 4 years, such as providing new opportunities for novel collaborative research, and made it clear that the EADGENE programme is still open to other European projects and international collaborations.



Session 1, on "Developments in Animal Genomics," opened with a keynote presentation on whole genome sequencing by André Eggen (INRA). Starting with a review of which livestock genomes have been/are being sequenced, Dr Eggen stated that "Although draft sequences of several genomes are available, still much work remains to fully benefit from the tremendous amount of data generated by the different sequencing initiatives in livestock species." He went on to give examples from the bovine genome, and suggested that it may not be as easy as we had originally hoped and that more research is needed to get genomic selection to work.

The next two presentations focussed on Animal Trait Ontologies (ATOs). James Reecy (Iowa State University), presented the global perspective, starting with the difficulty of defining terms (e.g. how do you precisely define "phenotypes"), and highlighting the challenges associated with producing ATOs for livestock species. Development of ATOs is dependent on successful collaborations and this theme was continued in the next presentation by Hein van der Steen (Stonebridge breeding), who spoke about the industry-driven EADGENE ATO project.

Nick Loman (University of Birmingham) gave a presentation from the perspective of bacterial genomics research. Bacterial genomes have a much smaller size (approx. 1000X) than animal genomes, so whole-genome analyses (e.g. transcriptomics) have been possible using current technology for several years. Dr Loman presented interesting examples from *E. coli* and *Mycobacterium tuberculosis* research. Emily Kay (CISBIC, Imperial College London) gave the final presentation of session 1, on the theme of "Systems Biology." Giving the specific example of her work with *Campylobacter jejuni*, she explained how a systems biology approach could help with integration of known data, the generation of hypotheses using Inductive Logic Programming (ILP), experiment validation of hypotheses, and then in a positive circle could lead back to the integration of more new data and the generation of more new hypotheses.

Session 2, on Tuesday afternoon, highlighted the **progress made within EADGENE in animal genomics**. Fanny Calenge (INRA) spoke about models for *Salmonella* infection in chickens. She demonstrated that there is no universal model, as genes involved *Salmonella* resistance differ according to the lines studied, the trait assessed, age, and probably many other parameters, but the studying of these different models could lead to more complete description of the disease.





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EADGENE days 2008 continued...

Using examples from pigs (which have a reference genome) and turkeys (which do not have a reference genome), Martien Groenen (Wageningen University) described progress in high throughput SNP identification and genotyping using 2nd generation sequencing. This was followed by a presentation on the annotation of the three EADGENE oligo-sets (chicken, pig, cattle) by Christophe Klopp (INRA).

Anne-Sophie Lequarré (University of Liège) gave a summary of several presentations made at the EADGENE sponsored miRNA workshop held in Liège on 3rd of March 2008.

EADGENE Short-term Stay (STS) funding recipient Rika Nobe (INRA) presented both her own work on the OspG type III effector protein in collaboration with the University of Miyazaki and University of Liège, and the work of Marjorie Bardiau (University of Liège) on bovine and human O26 EHEC strains using Whole Genome PCR Scanning, also in collaboration with the University of Miyazaki. Jakob Hedegaard (University of Aarhus) gave an overview of the EADGENE “technological triangle” visits, where researchers from 3 EADGENE partners (INRA, Aarhus, Roslin) visit each other’s laboratories in order to run a Quality Control (QC) trial using pig oligo sets. Each laboratory uses slightly different methods so it will be interesting to see how the results compare when the experiment is completed. The second session finished with a report on the EADGENE Ethical Matrix Workshops by the Danish Centre for Bioethics and Risk Assessment (CeBRA) Team.

A poster session and wine reception was held immediately after session 2, followed by the conference dinner at the Heights Restaurant in the Apex International Hotel overlooking Edinburgh Castle, where delegates enjoyed a traditional Scottish menu.

Session 3, on Wednesday morning, followed last year’s theme of collaboration with another EC funded project. Last year EADGENE joined forces with the SABRE Integrated Project; this year we held a collaborative session with the **Med-Vet-Net Network of Excellence**. Roberto La Ragione (Veterinary Laboratories Agency – VLA) gave a presentation of both the Med-Vet-Net project in general, and of his own work on early host response to *Salmonella* and *Campylobacter* infections in Tlr4 deficient versus wild-type mice. This was followed by an EADGENE presentation by Francis Dziva (Institute for Animal Health) on the functional

genomics of *E. coli* in cattle and poultry. The next Med-Vet-Net presentation entitled “Is seroepidemiology a tool to unravel the pyramid of surveillance for food borne pathogens,” by Kåre Mølbak (Statens Serum Institut), concentrated on the surveillance of food-borne infections in human populations. Muna Anjum (VLA) spoke about the diversity of virulence genes in Verotoxygenic *Escherichia coli* (VTEC) strains gathered from different regions in Europe, and was followed by Paolo Pasquali (Istituto Superiore di Sanita) speaking about host pathogen interaction in murine salmonellosis. A second EADGENE speaker, Juan Jose Garrido (Universidad de Córdoba), presented his work on *Salmonella* induced innate immune responses in pigs, and was followed by a Med-Vet-Net researcher, James Collins (VLA), speaking about the inhibition of *S. Typhimurium* invasion in a novel porcine 3D cell culture model. In a third porcine presentation, Pascal Boireau (Agence Française de Sécurité Sanitaire des Aliments - AFSSA), focussed on the harmonisation of *Trichinella* infection control methods, in pigs and an early indirect diagnosis in humans and pigs. The final presentation of the session was given by Malcolm Banks (VLA) on the In vitro culture of fastidious viruses with 3D cultures.

The 4th session in the main conference took the theme of “**EADGENE Applications**”. The EADGENE Fish Pathogen Working Group made a series of three presentations on : (i) Genomics of pathogen - salmonid interactions and genetic resistance (Bjørn Høyheim, Norwegian school of Veterinary Science - NSVS) ; (ii) Viral hemorrhagic septicaemia (VHS) in rainbow trout (*Oncorhynchus mykiss*) (Mette Hansen, University of Aarhus) ; and (iii) ISAV Recovery from cDNA by Reverse Genetics (Stéphane Biacchesi, INRA).

An excellent example of the “added-value” that EADGENE has been able to provide to its Partners’ various mastitis research projects was given in the presentation on meta-analysis of the EADGENE mastitis data by Sem Genini (Parco Tecnologico Padano). The meta analysis project has collected data from various studies within EADGENE and SABRE, with differing designs and sizes, host species (cattle, goat) and tissues, pathogens (*E. coli*, *S. aureus*, *S. uberis*), arrays (Ark-Genomics, NBFGC), and time points and has then used the Pointillist method to combine this data with the aim of producing meaningful results.

The two final presentations of session 4 focussed on the importance of Technology Transfer (TT). Chris Warkup (Genesis Faraday) presented the global perspective of TT, highlighting the importance of the research and development pipeline, innovation in a business context, the essential features of effective TT, and communication methods. The EADGENE Technology Transfer Facilitator, Angela van der Sanden (EFFAB), then gave the EADGENE perspective of TT, using the examples of TT projects within EADGENE such as the Animal Trait Ontology, poultry, data comparison, and the phenotypic database projects.

Three short **satellite meetings** were held on **Thursday 12th June**. The meta analysis of mastitis data presented by Sem Genini on the previous day was followed up in an Operational Genomics (WP8.1) meeting, and the EADGENE Animal Trait Ontology project was discussed in an ATO workshop. The final meeting of the conference was on Structural Genomics (WP5.1).

Presentations from the main conference, the poster abstracts and the delegate booklet containing the speaker biographies and abstracts can now be downloaded in PDF format from the EADGENE website at:

<http://www.eadgene.info/NewsandEvents/EADGENEEvents/AnimalDiseaseGenomicsConference2008/tabid/281/Default.aspx>





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Website & Intranet News (www.eadgene.info)

In the last year there has been a significant amount of effort put into the re-designing of the EADGENE public website and the accompanying Partner Intranet. On the public side, more information about the project has been added, such details of the **EADGENE Oligo sets**, reports from EADGENE **Short-term Stay funding** recipients and **presentations** from EADGENE conferences and workshops. We have also introduced some new useful features, such as the **online registration form** which many of you will have used for our recent 4th annual conference. Links to the latest website updates, events and project news are available on the right side of every page, so please visit regularly to see what is new!

The **Partner Intranet** is designed to give EADGENE participants access to internal project news, downloads, and other important information about the project. Each Work Package and Working Group has its own page with contact information for the WP Leader, the objectives of the WP, milestone and deliverable information, and downloads such as deliverable reports, minutes of meetings, and other internal documents. Access is via a registration process: simply click on the register option in the top right corner of any of the web pages and fill out your details. You can set your own password and once you have been authorised by an administrator you will be able to access much more information, such as the "Who's Who" page, Communication tools (see article below), and WP pages, through an additional "Intranet" tab which will appear on your menu bar (see screen shot).



To help you make full use of the Intranet's features we have produced a User Guide which can be downloaded from the first page of the intranet (after login) at: <http://www.eadgene.info/Intranet/tabid/72/Default.aspx>. The intranet already has over 100 members, but more are always welcome, so we strongly encourage EADGENE participants to **register** for this useful resource and visit the website regularly!

Communication tools: GoToMeeting and Doodle



GoToMeeting (www.gotomeeting.com) is a web conferencing tool that allows you to meet online rather than in a conference room, by sharing your computer screens with each other (e.g. showing PPT presentations). EADGENE has subscribed to this service and it is available to Work Package and Working Group members. It can be set up in advance for pre-organised meetings, or even for immediate screen sharing if you need to make a point during a phone call!

Doodle (www.doodle.ch) is a free web tool that allows you to schedule an event such as a Partner meeting, WP meeting, business event, conference call etc, by finding the dates and times that are most convenient for the majority of your meeting participants.

The EADGENE Communication Team has also produced **templates** for EADGENE **PowerPoint presentations** and **business cards**, and PDF versions of **EADGENE posters and leaflets**.



You can find helpful user guides for the GoToMeeting and Doodle tools, the EADGENE username/login for GoToMeeting, and the various EADGENE templates, posters and leaflets in the EADGENE intranet website at: <http://eadgene.info/Intranet/PartnerInfo/CommunicationandMeetingsTools/tabid/306/Default.aspx>

Congratulations

Michel Georges of the University of Liège recently received the 2008 Francqui Prize in Biological and Medical Sciences. The EADGENE Management and Communication Teams would like to offer their congratulations to Michel for this very well deserved recognition!!! The Francqui prize is the most important scientific prize in Belgium and every third year the prize is given for achievements in Biological and Medical Sciences. You can read more about this prestigious award at <http://www.francquifoundation.be/>.

Congratulations also to **John Woolliams** (The Roslin Institute and R(D)SVS, University of Edinburgh) for winning the Royal Agricultural Society of England's Research Medal. To quote from Farming UK, "Professor Woolliams works on the application of sustainable breeding programmes in livestock and has made significant contributions to several areas of animal science at both theoretical and applied levels. The Committee considered Pr. Woolliams to be an outstanding candidate for the award having demonstrated how excellent science can be translated into practical outcomes which are of real value to the agricultural industry."





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Contact Us

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Contributions & suggestions are always welcome!

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Upcoming Events

EAAP 2008

24-27th August 2008, Vilnius, Lithuania

The 59th Annual Meeting of the European Association for Animal Production will include a joint EADGENE and SABRE satellite workshop.

<http://www.eaap2008.org>; <http://www.eadgene.info>

3rd SABRE Conference: Welfare and Quality Genomics

10-11 September 2008, Foulum (University of Aarhus), Denmark

<http://www.sabre-eu.eu/NewsEvents/3rdSABREConference/tabid/306/t.aspx>

3rd E.Coli Annual Working Group meeting

29 September 2008, Liège (University of Liège), Belgium

For further information, please contact : J.Mainil to jg.mainil@ulg.ac.be

EADGENE and SABRE Post-Analyses workshop

12-14 November 2008, Lelystad, Netherlands

<http://www.eadgene.info>

Network inference in genetic studies; the GeneSys inaugural meeting

1-3 October 2008, Edinburgh, UK

For further information please visit <http://www.nesc.ac.uk/esi/events/868/>

You can find information other upcoming events at :

<http://www.eadgene.info/NewsandEvents/tabid/157/Default.aspx>

Management Communications

4th EADGENE Annual Reporting : Deadline 31st August 2008!!!

We are happy to report that the European Commission has indicated tacit (although not yet official) agreement to the extension of the EADGENE project for a further 6 months, so now we can start planning for the final 18 months of the project, from September 2008 to February 2010. EADGENE's management would like to remind all Partners, and in particular the WP Leaders, that the 4th Annual Reporting deadline is fast approaching. Various documents need to be completed and submitted to the EC:

- * The **Periodic Activity Report**:: an overview of the activities carried out during the year, progress of the WP during the period (achievements, deviations, etc.)
- * The **Draft Planning for the next 18 months**: description of the work planned (technical Annex), and the estimated budgets
- * The **Dissemination Plan**: list of the publications jointly published as a result of direct and indirect funds from EADGENE (in relation with the NoE), list of the oral presentations and abstracts submitted.
- * The **Periodic Management Report**: a detailed justification of the costs incurred and of the resources deployed by each contractor in each WP, including the financial statement (Form C)
- * **Audit certificates are mandatory for all partners** except ULJ, RIBFA, NSVS, FMV
- * **Every partner institute must provide FORM C.**

Please contact **Thu Bizat** (bizat@jouy.inra.fr) and **Sandrine Ayuso** (ayuso@jouy.inra.fr) for more information!!!

New Chairperson for EADGENE's Governing Council



The new EADGENE Governing Council chairperson (**Alan Archibald**, The Roslin Institute and R(D)SVS, University of Edinburgh) and vice-chairperson (**Fiona Tomley**, IAH) were elected by unanimous decision of the representatives of the Governing Council, during a meeting in Amsterdam on the 4th April 2008.

One of their major tasks will be the management of discussion on EADGENE durability.

Partner Meeting - 6-7th May 2008

An EADGENE Partner meeting took place in Rostock-Warnemunde (Germany) on **6th - 7th May 2008**. The majority of the EADGENE work package leaders attended meeting and gave presentations to update the other Partners on the progress of their WP. There was general discussion of **proposals for the last year of the project, especially regarding the best way to spend the remaining funds**. The EADGENE Management Team would like to thank Prof. Dr Hans-Martin Seyfert for hosting this meeting, and for the tour of the RIBFA. The presentations from this meeting are now available in the Partner Intranet (Login required).



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