Frontiers of Functional Genomics

An ESF Research Network Programme

EUROPEAN SCIENCE FOUNDATION

SETTING SCIENCE AGENDAS FOR EUROPE

The Sixth Frontier

Welcome to the latest newsletter of the ESF Frontiers of Functional Genomics RNP – FFG.

Following our recent call for proposals we have news of nine new events in functional genomics for 2010 covering topics from next generation sequencing to Daphnia genomics. And a new call has subsequently opened – with a deadline in January 2010 for travel grants and March for science meetings.

In this newsletter, we are pleased to announce the plenary speakers at our 4th ESF conference on Functional Genomics and Disease which will be held next April in the stunning city of Dresden. In a change from previous years, there will be opportunities to present your work as a short talk, as well as a poster – do note the deadlines for registration and abstract submissions.

Also below, you can read of the experiences two scientists had of the FFG programme exchange grant scheme: Ward Blondé took a truly top-down approach to systems biology in Norway where he combined bioinformatics with paragliding. David Svec travelled to Sweden and was thoroughly impressed with what he found there. Finally, we find out more about our Swiss steering committee member and his life in the lab with bugs and … boletus – do you know what they are? I for one had to google it!

Apply for science meetings and travel grants

FFG invites proposals from organisers of science meetings to be held in 2010 on topics with a clear connection to the programme. Priority is given to events taking place in countries that financially support the programme and especially those who have not yet hosted a meeting: Denmark, Luxembourg and Switzerland. The deadline for submission of science meeting proposals is Friday 26 March 2010.

FFG is also offering a number of Short Visits and Exchange Grants (up to 6 months). Projects must be within the scope of the programme and start during 2010. Priority is given to applicants coming from and intending to visit labs in countries that support the programme. Short Visit Grants now also cover support for attending practical courses in the area of functional genomics. The next deadline for grant applications is Friday 8 January 2010.

There will be another call for both exchange grants and science meeting proposals in autumn 2010. For further details and to apply online go to www.esf.org/ffg or for regular updates on events and funding opportunities contact cheryl.smythe@bbsrc.ac.uk or join our email list at www.functionalgenomics.org.uk/sections/contact/join.htm.

Future Events

Quality Control in Proteomics, Hinxton, UK 25-27 Nov 2009

Visualising Biological Data, Heidelberg, Germany 3-5 Mar 2010

Sample Preparation and Data Validation in Proteomics, Warsaw, Poland 8-12 Mar 2010

Daphnia Genomics, Leuven, Belgium 28 Mar – 1 April 2010

4th ESF Functional Genomics and Disease, Dresden, Germany 14-17 April 2010

Novel Approaches in Protein Engineering, Istanbul, Turkey 23-25 April 2010

Systems Biology & New Sequencing Technologies, Barcelona, Spain 16-18 June 2010

10th International Gene Forum, Tartu, Estonia 18-19 June 2010

Medical Genome Sequencing, Understanding the Genomes of Disease, Barcelona, Spain 15-17 July 2010

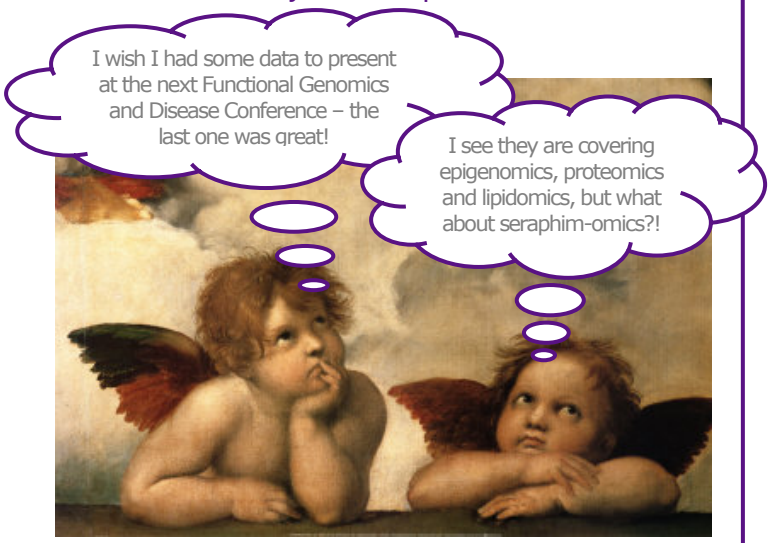
Next Generation Sequencing, Leiden, Netherlands 27-30 Sept 2010

Spatiotemporal Dynamics of Cell Signalling, Oslo, Norway 30 Sept – 3 Oct 2010

For scientific reports from our past events, please go to our website www.functionalgenomics.org.uk.

4th Functional Genomics & Disease Conference

Dresden, Germany, 14-17 April 2010



Following on from three stimulating conferences in Prague, Oslo and Innsbruck, the 4th Functional Genomics and Disease Conference in Dresden promises to be another great meeting. We are delighted to have the following plenary speakers: Matthias Mann, Gunter Meister, Wolf Reik, Leena Peltonen, Paul Flicek, Marino Zerial, Andy Futreal, Kelly Frazer, Gert-Jan van Ommen, Manfred Kayser and Henrik Kaessmann. Poster prizes will be awarded to the 4 best posters and travel bursaries are available for young researchers. Submit your abstract for either an oral or poster presentation before 27 Nov 2009 at www.esffg2010.org and benefit from early registration discounts before 22 Jan 2010.

Systems biology in Norway: a view from above … the clouds!

Ward Blondé

I flew to Trondheim in the beginning of February 2009, to join the new group of Systems Biology that Martin Kuiper had started at the NTNU University. Apparently, it would be dark and cold, as Trondheim lies halfway between Oslo and the polar circle. But the view from the airplane over the bright, snowy fields was the scene from a fairytale. I wouldn't miss the sun for a moment with all these thick layers of snow. Perfect for winter-sports! In fact the hills for cross-country skiing started just behind the picturesque wooden house that I stayed in for the duration of my visit.

The cooperation with the people in NTNU was intense. As we had been in contact by email before my visit, there was now no need to waste time exchanging a lot of detailed knowledge, and to make up plans for the coming months. Like me, two students from India who were about to undertake their PhDs, had also just arrived in Norway. They made excellent partners for lunch and social events! And there was certainly no lack of social gatherings, as Martin very kindly invited all the foreigners in the group for dinner every Wednesday.

Despite all the work, I also managed to fit in some time for holidays in this beautiful country. And of course other people had similar ideas: I welcomed my parents, my sister's family and my girlfriend on three different occasions. The boat-trip on the fjords and the view from the television tower were some highlights I could share with them. But I got the most satisfaction from my latest hobby in the Norwegian mountains: paragliding. It took a lot of effort to arrange this, but with thanks to Google Translate, I managed to enjoy three days of flying over the beautiful landscapes.

Science and society in Sweden

David Svec

I began my PhD 2 years ago in a new laboratory of gene expression at the Biotechnology Institute, Prague, Czech Republic. The head of this lab is also a co-founder of the Swedish biotech company TATAA which focuses mainly on real-time PCR. For my PhD, I differentiated myself to analyse small-size samples using real-time PCR – I started with mouse blood, laser-microdissection of mouse embryonal tooth (hundreds of cells), followed by splitting single cells. This was my subject in Professor Milos Pekny´s lab in Göteborg University, Sweden. Briefly – it was neurons (astrocytes), with a goal to describe and control regeneration of neuronal tissue. On this level of sampling, completely new issues come up and it is fascinating to uncover perfectly engineered regulatory pathways.

The organisation of my stay could as well describe the whole visit – straightforward and pleasant. Travelling was no problem, with a direct connection between Göteborg and Prague – meeting kind and smiley people on board the small jetplane. Organising accommodation – a pleasure – the lab contacted the guest service, and all was done in a few days. My accommodation was in the very nice "café" part of Göteborg. The Swedes can be proud of the service provided – visiting scientists are picked up by taxi at the airport, given a cell phone and wireless internet connection upon arrival in the room together with a welcoming package with maps, guides, university souvenirs and when I unpacked the last item – a package of coffee – I smiled broadly at the well-tuned service. To make a long story short – it was a perfect beginning.

Having never been there before for more than a few days, this time I travelled to Sweden for two months. First month – March: rainy, challenging work, getting used to higher doses of caffeine. Visiting museums, travelling around when the weather allowed - islands, parks. Second month – April – a much happier time: successful work, parties with friends, tasting Swedish cuisine, dinner at my supervisor's place, having wild blueberries in the garden, riding around on my boss's bike, Czech friends visiting. Great time – good results, so much learnt from the field experts, now finalising and writing up. So my global image of Sweden – kind people (addicted to coffee), social and tolerant, good service, and the will to improve and make life easier.

Steering committee spotlight

Christoph Dehio is the Swiss representative on the FFG steering committee. Following his undergraduate and postgraduate studies in Cologne, Christoph moved to the Pasteur where his interest in the pathogen Bartonella began and continued while in Tübingen and now in Basel where he has a chair at the university. Bartonella is not a bug you want to come into close contact with – with more than 20 species identified, about half of these have been shown to cause human infection. Three species are considered to be major human pathogens, one of which is a deadly pathogen causing severe disease with a frequently fatal outcome. Christoph's publication history reflects the emergence and development of genomics – from looking at a single gene in the early nineties to a specific interactome now. Future publications will reflect his involvement in the new Swiss Initiative in Systems Biology: InfectX – Systems Biology of pathogen entry into human cells – aiming to comprehensively identify the components of the human infectome – the set of human genes/proteins that is required to allow a pathogen to infect. When not battling with bartonella, Christoph can be found bagging boletus while hiking on the Vosges mountains and then enjoying the local culinary delights on the Alsacian plane below.

Compiled and created by Cheryl Smythe, FFG Coordinator