

## A Hive of Activity at CPGR - Part II - *by Judit Kumuthini*

### South Africa joins COST Action SeqAhead



South Africa joined COST action BM1006 in 2013. Current members are Prof. Fourie Joubert (University of Pretoria), A.Prof. Nicola Mulder (University of Cape Town (UCT)) and Dr. Judit Kumuthini. To help us assess the demand for future NGS workshops, please fill in the [COST action questionnaire](#).

### First Genomics Lab in Africa To Be ISO Certified



The CPGR selected ISO 9001:2008 as the standard for its [Quality Management System](#). We believe that compliance with this standard will enhance our ability to support projects across the entire life science innovation chain, situated in the basic, translational and clinical science arenas. The ISO 9001:2008 standard is premised on a culture of continuous improvement, from product development to client engagement. This requires a commitment to flexibility and adaptation – crucial organisational features in the highly dynamic area of science and business such as ours.

### The New Website and NGS Lab Launch



CPGR's website recently had an [overhaul](#). In May 2014, CPGR launched NGS services, with acquisition of Illumina MiSeq, Ion Proton and two Ion PGM bench-top sequencers. CPGR is implementing complete genomics workflows in RNA-Seq, microbial and fungal genome sequencing, metagenomic sequencing and whole exome sequencing.

### CPGR Workshop Trainings Attended



[H3ABioNet](#) is geared towards developing technical bioinformatics capacity and support. To this end, the consortium has hosted multiple training workshops: H3ABioNet Data Management, H3ABioNet NABDA Node Training Course on Visual Analytics of Human Genome Variation Datasets, H3ABioNet Introduction to Bioinformatics using the eBioKit platform, H3ABioNet Train-the-Trainer Bioinformatics Course, H3ABioNet Technical Training Course, and H3ABioNet Grants Management Course. CPGR node members have been fortunate to participate in [all these workshops](#).

### CPGR Workshop Trainings Hosted



CPGR has also hosted several workshops: 1) a 2-day NGS workshop funded by H3ABioNet, organised through the [KTP](#) at the [CHPC](#). This involved lectures and computer exercises, with hands-on data analysis of NGS applications for variant detection and *de novo* assembly – 31 participants attended from across South Africa (see [newsletter](#)); 2) a workshop based on [Chipster](#), held at the CHPC, funded by the [DST](#) through the [SANBI](#), and jointly organised by the CPGR, SANBI and the [Computational Biology Group](#) (Cbio) at UCT – 30 participants attended; 3) a 3-day workshop, the first African Affymetrix University Data Analysis workshop, held at SANBI at the University of the Western Cape (UWC) in Cape Town, funded by the DST and jointly organised by the CPGR, Cbio, SANBI and Affymetrix – it had 30 participants; 4) with help from Dr. Panu Somervuo from the University of Helsinki ([Metapopulation Research Group](#)), a 3-day NGS road-show was delivered at UCT, UWC, Stellenbosch University and the African Institute for Mathematics and Statistics. Other workshops included an introduction to computational medical population genetics and genome-wide association meta-analysis for complex disease, CPGR data analysis and CPGR GeneTitan Axiom Training. CPGR also attended Monte Carlo Inference for High-Dimensional Statistical Models and NGS data after the Gold rush workshops this year.



Swiss Institute of  
Bioinformatics

## 2015 Training Activities at SIB

by Grégoire Rossier,  
*Vital-IT and Training & Outreach groups, SIB*



The SIB Swiss Institute of Bioinformatics has extensive training experience, built over the last years. Its **Training and Outreach Group**, which provides and coordinates a growing number of courses and workshops each year, has recently published the list of training-related events scheduled for 2015 ([www.isb-sib.ch/training.html](http://www.isb-sib.ch/training.html)).

At the time of writing, this list detailed 26 events – spanning around 65 days of training – covering key bioinformatics topics, such as large-scale data analysis, systems modelling, statistics, data mining, programming, High Performance Computing and SIB resources. To address an increasing demand for basic training in specific topics, the SIB inaugurated, last September, a new “**First Steps with**” series, with a one-day

course about UNIX for biologists. The course was a success, and will be repeated three times per year in different locations in Switzerland. Other “First Steps with” are also planned in topics such as statistics, R, sequence analysis and comparison, *etc.*

Additional SIB courses are currently being devised, and aim to reach at least 35 events next year. Currently, the courses are held at six SIB locations in the main Swiss cities, and are open to international participants, who currently only represent 10% of registrations.





## CBIB 2015 Activities

*by Emiliano Barreto Hernandez, Colombia EMBnet Node Manager*

The Bioinformatics Centre of the National University of Colombia Biotechnology Institute (CBIB) has provided bioinformatics tools, databases, training and support to the Colombian research community for 14 years. As part of EMBnet since 2003, the CBIB has been both witness to and actor in the development of bioinformatics in Colombia.

As part of the bioinformatics community in our country, the CBIB is working side-by-side with Universidad de Antioquia, Universidad EAFIT (Escuela de Administración, Finanzas y Tecnología) and other academic partners in the organisation and planning of the 3<sup>rd</sup> Computational Biology and Bioinformatics Colombian Congress, which will take place in Medellín, September 2015 (<http://ccbcol.co>, under construction). It promises to be the meeting point for more than 200 Colombian researchers.

The CBIB has helped and inspired the National University of Colombia to create the 1<sup>st</sup> Bioinformatics Masters program in Colombia, taking its first students in February 2014, and continuing to receive students every semester. The [next application process](#) will commence in March 2015.



Likewise, in June 2015, the university has proposed a Research School, where their bioinformatics research groups, including the CBIB, will be responsible for planning and conducting a “*Clinical Genomics and Personalised Medicine*” course with the collaboration of international experts. The main aim of this course is to familiarise the research community with the theoretical, practical and clinical applications of genomics and personalised medicine (more info in February 2015 at:

[www.unal.edu.co/diracad/einternacional](http://www.unal.edu.co/diracad/einternacional)).



## EMBnet.digest

EMBnet.Spotlight is a quarterly release of InFocus sections published in EMBnet.digest ([www.embnet.org/embnet-digest](http://www.embnet.org/embnet-digest)), EMBnet's monthly publication that provides a round-up of news from the community. The InFocus section features member activities, projects, initiatives, etc., especially from new members, that may be of interest both to the network and to EMBnet's associated communities, societies and projects.