

Gene to 'ome: scientific excellence at Genetics congress

By Albe van der Merwe

South Africans face many challenges, but our scientists excel at turning those challenges into opportunities. This was one of the golden threads that ran through the SAGS (South African Genetics Society) meeting held at the University of the Free State in Bloemfontein from 9 to 10 April 2010.

Both students and academics from around the country attended the meeting. The largest groups were from the University of Pretoria (UP), the University of the Free State (UFS) and the University of Stellenbosch (US). This provided excellent networking opportunities for all that attended.

Most of the oral and poster presentations were by students from the various research groups. These covered subjects such as gene organization, genome sequencing, population genetics and cytogenetics. Disease problems on plants, animals and humans, and problems relating to the quantity and quality of natural resources made up the bulk of genetic research undertaken at South African institutions. This was also reflected in the subjects of most of the presentations. The society awarded prizes and honorable mentions to students who delivered the best presentations.

The prize for best poster presentation was awarded to Janine Silberbauer from the FMG group at UP (Forest Molecular Genetics, FABI), for her poster describing the analysis of digital expression profiling data from *Eucalyptus* tension wood forming tissues. The best M.Sc. oral presentation was awarded to Simon Martin, from the TPCP-CTHB group (Tree Protection Co-operative Programme / DST/NRF Center of Excellence in Tree Health Biotechnology, FABI), for his presentation on mating pheromones in *Fusarium* species. Nicky Creux, also from the FMG group, pocketed the best Ph.D. oral presentation for her work on the characterization of regulatory elements of cellulose synthase genes of *Eucalyptus*. One of the criteria used to decide

on these awards was the ability of the student to explain complex concepts to those who do not work in the same field. These awards thus underline the excellent standard of research undertaken and training provided by institutes such as FABI. More importantly, they imprint confidence in the next generation of scientists who will lead research in South Africa.

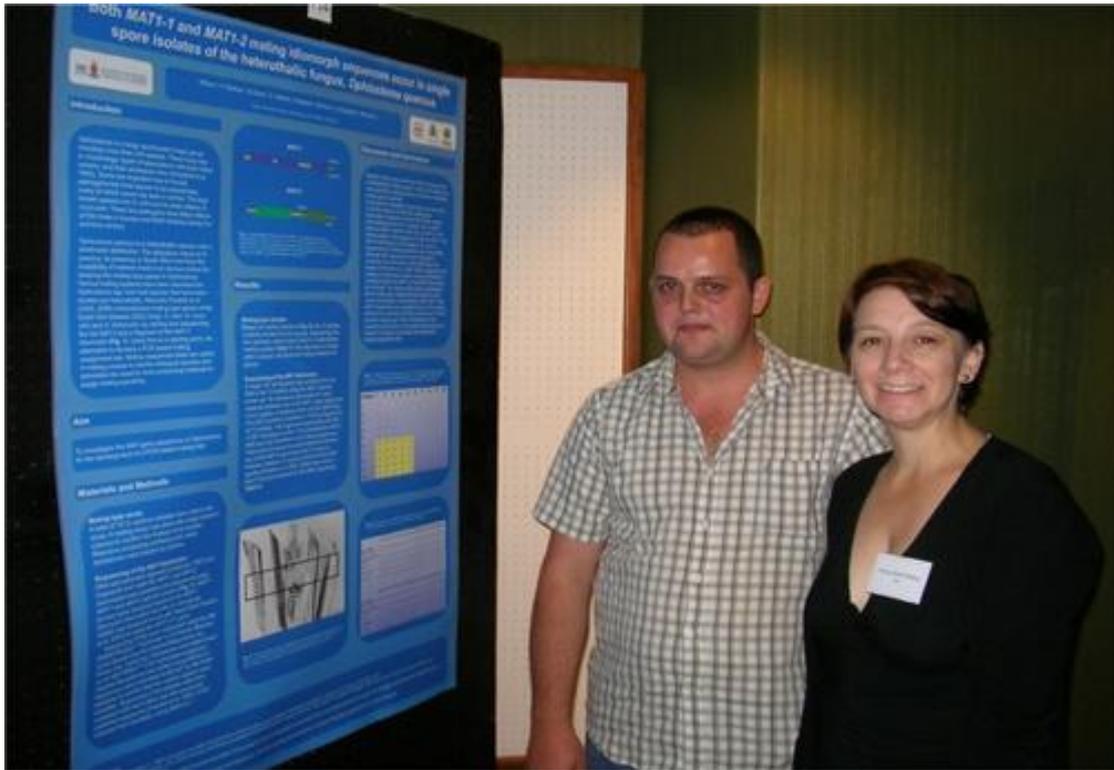
Although the South African Genetics Society has seen a steady decline in member numbers over the past few years, the executive committee believes that this is only temporary. Efforts have been made to improve the society's online presence with a new website (<http://www.sagene.co.za>), and the society has also been affiliated with SACNASP (<http://www.sacnasp.org.za>), the counsel representing professional natural scientists in South Africa. Those working in genetics or a related field were invited to become members of SAGS. Membership costs R200 biannually, and can be obtained through the Society SAGS membership also provides affiliation to SACNASP, which in itself is a huge benefit.

Albe van der Merwe from the Department of Genetics at UP (TPCP-CTHB/FMG groups) was elected as an additional member of the SAGS executive committee, which is headed by Prof. Alexander Myburg (FMG, Department of Genetics, UP). Other members of the committee include Dr Vida van Staden (Department of Genetics, UP), Dr Eduard Venter (Department of Botany, University of Johannesburg), and Dr Rouvay Roodt-Wilding (Department of Genetics, US).

The executive committee urges anyone working in a genetics related field to join the society. The fields might include plant or animal breeding, phylogenetics and phylogeography, pathogen genetics, human genetics, and population genetics of any organism. There is an especially huge gap in representation of bioinformatics fields, which the committee hopes to rectify. All genetics researchers at the SAGS meeting were invited to consider attending the next meeting to be held at the University of Stellenbosch in 2012. This promises to be just as informative and productive as the meeting held at UFS and it will no doubt contribute equally to turning those national challenges into national opportunities.



Students who received awards and honorable mention at the 2010 SAGS congress. FLTR: Daria Rutkowska (Dept Genetics, UP, honorable mention poster presentation); Steven Hussey (Dept Genetics & FABI, UP, honorable mention MSc oral presentation); Hesmari van der Westhuizen (Dept Genetics, UFS, honorable mention poster presentation); Tyren Dodgen (Dept Pharmacology, UP, honorable mention PhD oral presentation); Simon Martin (Dept Genetics & FABI, UP, best MSc oral presentation); Janine Silberbauer (Dept Genetics & FABI, UP, best poster presentation); Juliet Mentoor (Dept Genetics, UP, honorable mention MSc oral presentation); Nicky Creux (Dept Genetics & FABI, UP, best PhD oral presentation); Ritesh Mewalal (Dept Genetics, UP, honorable mention poster presentation).



Markus Wilken from the TPCP-CTHB group (FABI, UP) explained to Dr Rouvay Roodt-Wilding (Department of Genetics, US) what the significance is of a heterothallic fungus harboring DNA that codes for both sexual functions. Heterothallic fungi are those species that have “male” and “female” individuals, and they cannot produce offspring when the other sex is not present. Therefore, it is interesting that in *Ophiostoma quercus*, which is a heterothallic fungus, both the “male” and “female” functions are retained in the genome.



Dr Eduard Venter (UJ), Daria Rutkowska (UP) and Dr Daleen van Dyk in front of a statue of judge MT Steyn on the UFS campus.



Tea time at the SAGS 2010 meeting provided opportunities for students and academics from the participating institutions to interact and talk about science.