

## **SOUTH AFRICAN GENETICS SOCIETY 2008 CONGRESS**

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The South African Genetics Society (SAGS) celebrated its 20<sup>th</sup> Biennial congress in March 2008 which was hosted by the Genetics Department of the University of Pretoria. This meeting was to add momentum to the Centennial celebrations of the University of Pretoria. A packed two day programme offered much variety and scientific diversity. Boasting over 100 participants, the platform for the communication of science had been set.

The highlight of the congress was certainly the keynote address by Nobel Laureate for Physiology of Medicine in 2002, Professor Sidney Brenner. Delivering his address to an audience that ranged from geneticists to biochemists and curious students all hoping to be inspired by the great man, the allocated time slot seemed to be inadequate. Professor Brenner's talk entitled "Genetics in the next 100 years" addressed the challenge of the genomic era. His message was very simple - in our quest to characterize genomes in their entirety we must not lose track of the comparative sizes of these genomes. "Junk versus Garbage" was a perfect analogy used by Professor Brenner to convey this message. In his words, "we need to discontinue casting the genoscope" and focus our attention on rate of change in comparison to the fixation of genes. Brenner captivated the audience not only by his eccentric personality but also by his sheer charisma for encouraging the science-mind in every person to strive for excellence and always to challenge scientific thought to discover the novelty in all research undertaken.

The congress proceedings were divided into five main categories. A plenary speaker gave the opening address at each of the five sessions. The plenary address at the molecular biology and epidemiology session was delivered by Dr Sergel Kosakovsky-Pond on the molecular evolution of RNA viruses, focussing largely on the developmental methodology, algorithms and software establishment for statistical analysis. The student presentations in this session ranged from modeling of the HIV-1 host immune response to cellulose synthase complexes. A new industrial technology for pre-prescription genotyping, utilizing the Roche Amplichip, was very insightful.

Population genetics, molecular ecology and evolution were brought to life by the plenary talk by Professor Himla Soodyall. This medical scientist spoke of her travels along the Indian Ocean and the traits surrounding the trade of boats and genes. Using mitochondrial DNA and Y chromosome markers, Professor Soodyall shed light on the origins of the Zanzibaris. A diverse and detailed investigation showed that hapotypes could be traced to primarily African descent. Student talks included topics such as insight into forest pathology of wilt pathogens in the South African context, and insect introductions of *Thamastocoris peregrinus* as a potential epidemic problem.

Concurrent sessions on phylogenetics, evolution and genomics each addressed the latest developments on the scientific frontier. Audiences were

spoilt for choice when having to decide which session to attend from whole genome expression of quantitative trait loci to elicitor induced *Fusarium* genes in bananas. The final day's proceedings covered plant genomics and quantitative genetics.

Luke Solomon of FABI won the award for the best student presentation for his exceptional summary of his findings regarding diurnal and circadian rhythms of gene expression in wood-forming *Eucalyptus* tissues.

Students were also given the opportunity to participate in the poster presentations. The overall winner of the student poster categories was Janine Silberbauer whose work focused on the development of diagnostic marker genes for early and late induction of tension wood in *Eucalyptus* trees.

This meeting provided an excellent opportunity for academics and students to network. SAGS 2008 was an exceptional success and the challenges of the next century in the field of genetics became encapsulated in the minds of every attendee.



Pictured with the inspirational Professor Sidney Brenner at the welcome cocktail evening are from left to right, Dr. Colleen Aldous-Mycock, Lieschen De Vos, Kershney Naidoo, Natalie van Zuydam and Professor Brenda Wingfield. (Professor Mike Wingfield in the background)