

### South African Biotechnology Initiatives Exhibit at BIO 08

A South African delegation lead by the Deputy Minister, the Honourable Derek Hanekom recently attended the Biotechnology International Organisation (BIO) Congress 2008 in San Diego, USA. The delegation of senior government officials was accompanied by representatives of the all the Biotechnology Innovation Centres (BICs) and the National Bioinformatics Network.



This year saw the Department of Science and Technology and the BICs participating in the BIO 2008 Exhibition for the first time. Our stand was also host to four additional companies, Kapa Biosystems, CitroGold South Africa, Inqaba Biotechnical Industries (Pty) Ltd and African Clinical Research Organisation (ACRO), all projects of the BICs. Promotional material highlighting the work of the DST and the BICs was distributed to visitors at the stand. A number of bilateral meetings with tangible outcomes were held with delegates from a number of countries and companies, including among others, Spain, Australia, USA and India.

The BICs have made huge contributions towards growing the South African health, bioprocessing, and agricultural biotech industries. Their commitment to establishing and supporting the development of the bio-sector as a significant global player was highlighted by their participation at the BIO 2008.

BIO was registered in 1993 and is now the world's largest biotechnology organisation with more than 1100 members ranging from entrepreneurial companies to Fortune 100 multinationals. BIO provides advocacy, business development and communication services to its members, who represent both state and regional associations, academic centres and other service providers to the biotech industry. The annual BIO Convention is the world's largest Biotechnology event and covers every aspect of biotechnology. More than 20 000 attendants were registered at BIO 2008 with the South African stand having a fair share of these participants visiting and interacting with the South African delegates.



The 2009 BIO convention (BIO 2009) is expected to be held in Atlanta, Georgia from 17 May to 29 May.

An initiative of



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## The Centre for Proteomic and Genomic Research



The Honourable Minister of Science & Technology, Dr. Mosibudi Mangena; the Deputy Vice Chancellor of UCT, Professor Martin West and other dignitaries attended the official launch of the Centre for Proteomic and Genomic Research (CPGR) on the 3<sup>rd</sup> April. The event took place at the CPGR premises situated at the University of Cape Town's Medical Campus.



The CPGR provides high-throughput biological solutions and project support to the country's scientists, in addition to offering world class quality analytical services to academia and industry globally. After only one year into operations, the platform is already providing services not only to South African clients but also to clients in the EU and the US. "The CPGR will be a catalyst assisting in the generation of new technologies and products for South Africa, providing services to research projects and businesses in the

human health, bioprocessing and the agricultural sectors", said Professor Antonio Llobell, the CEO of PlantBio Trust, speaking at this opening ceremony.

Cape Biotech and PlantBio teamed up to provide resources for the establishment of the centre and are also funding research projects that are utilising the CPGR facilities. The CPGR is an excellent example of the collaboration between the Biotechnology Innovation Centres (BICs) of the Department of Science & Technology.



The Minister, in his opening speech said that the centre was a proactive driver of research and development in Southern Africa and aimed directly at boosting the biotech

sector by building a competitive research and development infrastructure. The DST strongly supports and encourages the establishment of platforms such as the CPGR as they are of central importance to the National Biotechnology Strategy. Such platforms empower our scientists to put their research into practice, thereby encouraging new biotechnology innovations, and providing positive benefits to the South African economy.



For more information on the CPGR, visit their website

[www.cpgr.org.za](http://www.cpgr.org.za)

**Should you wish to not receive our electronic newsletter, kindly e-mail [helen@plantbio.co.za](mailto:helen@plantbio.co.za) and we will remove you from our database.**

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## Biofuels and PlantBio

The price hike of fossil fuel, which could be attributed to their increased global demand and political instability in high oil producing countries, has recently resulted in the search for alternative sources of energy. The projections pointing to the depletion of fossil resources are also providing a compelling case for production of renewable energy. Globally, there is an increasing interest in the utilization of plant resources as a source of energy. Plant based renewable energies or biofuels are also more relevant in times where climate change, widely believed to be due to emissions of greenhouse gases to the atmosphere, is already taking its toll in many parts of the world.

In response to these concerns there are many initiatives from various countries aimed at addressing the energy crisis. The

Republic of South Africa, in particular, recently released a bio-fuel industrial draft strategy which outlines policy matters, regulations and incentives for biofuels. PlantBio as an innovation centre for plant biotechnology has taken this initiative further by identifying, sourcing and subsequently funding biofuels projects. Sorghum, in particular, has been identified by PlantBio as one of the crops to be developed and characterised to ascertain its suitability as a feedstock for ethanol production. PlantBio's selection of crops for biofuels is based on two main factors, namely, high sugar and/or biomass yield and the ability to grow in marginal land with low input requirements to avoid competition with food production and increase sustainability. The second generation stream of biofuels such as utilization of lignocellulose as a feedstock for bioethanol or hy-

drocarbons production is also prioritised because it alleviates fears of a negative impact on food security which may arise when crops cultivated for food are diverted to biofuels production. PlantBio is generally looking at any project that could add value to the whole biofuels value chain ranging from crop improvement to bioprocessing. (i.e. identification of new microorganisms or enzymes that could be used in the degradation of cellulose to fermentable sugars, and improved strains for the conversion of fermentable sugars into fuel).

In addition to the direct positive impact on the country economy, PlantBio also envisage the value in terms of skills development, job creation and poverty alleviation that the Biofuels projects will have on the growth of the South African economy.

## Staff Appointments

PlantBio welcomes three new members to our project management team as we steadily continue to grow our portfolio of projects:

**Mrs. Adriana Anthonissen** who has experience as a Plant Pathologist at Ocean Agriculture and Product Manager and Regional Sales Manager at Biological Control Products. Adri has an M.Sc in Plant Pathology from the University of Stellenbosch.

**Dr. Xolisa Melamane** relocated to Pietermaritzburg from the University of the Western Cape where she was a Post Doctoral Fellow at the Proteomics Research Group. Xolisa has a PhD in Biotechnology from Rhodes University and a BSc from University of Fort Hare.

Both Adri and Xolisa have taken up Portfolio Manager Positions.

PlantBio has received numerous proposals relating to Biofuels, one of our strategic thematic areas. This lead PlantBio to engaging **Dr. Sandile Ncanana** as an Executive Portfolio Manager to head up and co-ordinate the Biofuels portfolio. Sandile has a PhD in Chemical Engineering, with an emphasis on bioprocessing, and an M.Sc in Molecular and Cellular Biology from the University of Cape Town. Sandile previously worked for the Sugar Milling Research Institute (SMRI) as a Senior Research Officer.

Unfortunately, we said goodbye to Ms. **Iona Basdew** at the end of April, when she left to take up a position at the University of KwaZulu Natal. During her two years with PlantBio, Iona was an integral member of our team successfully managing a number of projects and contributing significantly to our portfolio. PlantBio wishes Iona all the very best for the future.

## First Joint Ghana-South Africa Biennial Conference on Biotechnology and Materials Technology April 2008—Accra, Ghana

A South African delegation attended the First Joint Ghana-South Africa Biennial Conference on Biotechnology and Materials Technology in Accra, in April 2008. The delegation included representatives from the Department of Science and Technology (DST), Council for Scientific and Industrial Research (CSIR) - South Africa, University of Johannesburg and PlantBio Trust. The representatives from PlantBio were Mrs. Avril Harvey and Dr. Henrie Groenewald. The conference was well represented with approximately 60 delegates from CSIR-Ghana, The Biotechnology and Nuclear Agriculture Research Institute-Ghana Atomic Energy Commission (BNARI-GAEC), University of Ghana and the Ghanaian Food Research Institute.

The conference's opening session hosted speakers such as Honourable Minister of Foreign Affairs in Ghana, Mr. Akwasi Osei Adjei, representative from NEPAD; Director General of CSIR-Ghana, Dr. Essel Ben Hagan, the South African High Commissioner in Accra and DST's Chief Director of African Cooperation, Ms. Lindiwe Lusenga.

A number of interesting papers were presented dealing with cooperation and collaboration between Ghana and South Africa, and the mobilisation of funds for research in Ghana. From the PlantBio perspective, Mrs. Avril Harvey delivered a presentation on "Managing Innovation in Plant Biotechnology" and Dr. Henrie Groenewald on "South African Perspective on Biosafety and Regulatory Mechanisms on Biotechnology". Both talks were received with considerable enthusiasm.

It was determined that there are a number of areas for collaboration between Ghanaian and South African research in both Biotechnology, especially in the Plant and Animal/Livestock fields, as well as in Materials Technology and in the area of Biosafety. Representatives from each country have undertaken to facilitate relationships and the drafting of project proposals around these various areas of interest and potential collaboration.

The conference came to a close on the 24<sup>th</sup> of April with a tour of the BNARI-GAEC facilities north of Accra.





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From 15<sup>th</sup> - 17<sup>th</sup> September 2008 South Africa's Biotechnology Innovation Centres (BICs), BioPAD; Cape Biotech; LIFE*lab*, PlantBio and the National Bioinformatics Network, in conjunction with the Innovation Fund and eGoliBIO, will host the annual Bio2Biz SA 2008 Conference. The event will be held at the Sandton Convention Center in Johannesburg, South Africa. Other attractions include an exhibition, meeting with local and international delegates, investment and partnering opportunities.

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## Bio2Biz SA 2007

