

## **Bioinformatics firm pursues drug discovery**

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One of three postgraduates from the University of the Western Cape (UWC) hired by Electric Genetics Junaid Gamieldien is responsible for the innovation behind the company's new drug discovery division and its collaboration with Harvard Medical School.

Electric Genetics has already shown its ability to change with the market by adding a new division to the company that is focused entirely on the discovery of novel targets for pharmaceutical development.

Founded on software developed at UWC's South African National Bioinformatics Institute (SANBI), Electric Genetics has enjoyed a history of technical leadership.

With the current emphasis on biotechnology and bioinformatics being instituted by government agencies, such as the Department of Arts, Culture, Science and Technology (Dacst), prospects for Electric Genetics to have an impact on the local economy are good.

Electric Genetics staff have participated on the working committee of the Cape Biotech Initiative in order to produce the Western Cape's application for a biotechnology regional innovation centre (BRIC), submitted to Dacst at the end of last month, and an Electric Genetics project was submitted as a component of the BRIC proposal.

Looking ahead, Electric Genetics expects to expand its presence in the global biotechnology marketplace by emphasising its new drug discovery division and by attracting international funding to South Africa. Export revenues are expected to grow at an increasing pace and the company hopes to develop a strong collaborative base to improve success of the biotechnology industry as a whole in the Western Cape.

Electric Genetics is not waiting for these results before forging ahead with collaborations with other biotech-related organisations in the Western Cape.

With the SANBI/UWC relationship firmly under its belt, Electric Genetics has begun discussion with UWC's new applied research centre for applied microbiology to validate potential drug targets and has identified another local biotechnology company whose activities can be co-marketed to customers to provide a broader solution to the pharmaceutical customers' need. The philosophy of creating a product by bringing together several partners, each with their own expertise, is at the heart of the Western Cape BRIC proposal and is already evidenced in the activities of Electric Genetics.

Knowing the market intimately, relying on cutting-edge technology and making use of its strengths have been the keys to the company's success.

Top technology is the first imperative in becoming a successful biotechnology company. "Maintaining this leadership, however, is not easy, particularly in bioinformatics, where new scientific understandings that shape our software development are being uncovered daily," states Electric Genetics MD Tania Broveak Hide. "Developing one hot technology is easy; maintaining these standards for multiple product lines over time is the real challenge," she asserts.

Second is to know your market intimately, which includes not only knowing what the market wants, and monitoring the ongoing changes, but also knowing who's who in the industry. Electric Genetics is fortunate that three of its top executives worked abroad in the biotech industry and the company has nurtured key partnerships with other well-respected companies. "Electric Genetics found that South Africa offered access to employees with superb skills," Hide enthuses. "The Western Cape has plenty of excellent computer programmers who are also very creative, and the biotechnology industry gives them an interesting and intellectually challenging problem to tackle," Hide says.