



Meet Crunchie the Cray, the "Dancing Hippo" of South African Bioinformatics

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NEW YORK, July 11 - On Monday, the South African National Bioinformatics Institute fired up the continent's most powerful supercomputer, an 8-gigaflop Cray expected to jumpstart the country's genomics research.

The system, with its 8 processors and 32 gigabytes of RAM, will allow researchers at the University of the Western Cape in Cape Town to predict gene transcription, probe the relationship between the genome and the transcriptome, and study the phylogenetics of strains of HIV.

Led by SANBI head Winston Hide, South African researchers will adapt their bioinformatic applications to run on the high-powered machine, allowing Cray to optimize its computers for the life-sciences market.

"Cray has been waking up to the biotech world," said Hide. "They said, 'If you would be interested in optimizing some of your algorithms, help us with this market, and give us real solid feedback, we'll put a machine with you.'"

Cray, which sold the machine to the university for an undisclosed sum, has similar arrangements with other international bioinformatics centers, including the National University of Singapore.

"It's beneficial in both directions," added Hide. "They gain expertise and our applications are fine-tuned."

The machine was officially inaugurated in a ribbon-cutting ceremony on Monday by South African education minister Kader Asmal.

South African government officials have made bioinformatics a research priority, said Hide. A visit with Cuban president Fidel Castro convinced South African president Thabo Mbeki that biotechnology can be a growth industry in developing countries. In fact, part of SANBI's role in this effort is to educate and develop the next generation of black South African researchers.

For their part, government ministers agreed to devote the equivalent of \$1.5 million annually to spur biotechnology research and dedicate an additional \$446,000 specifically to bioinformatics--"an enormous amount for us," said Hide.

"They want to create biotech centers and kick some biotech butt," he added. "It's pretty cool."

The system, which SANBI researchers have dubbed "Crunchie the Cray," will give them the raw computing power they need to eliminate the guesswork in understanding gene transcription.

"I call it a dancing hippo," laughed Hide. "It's ugly as hell, but when it dances it sure is wonderful."