

World's greenest supercomputer heads to Melbourne to boost health research

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Victoria will be home to one of Australia's fastest supercomputers and the world's greenest supercomputer, the IBM Blue Gene/Q, which will be housed at the Victorian Life Sciences Computation Initiative (VLSCI) hosted by the University of Melbourne, and is aimed at advancing the study of human disease.

The acquisition of the IBM supercomputer is the second stage of an agreement between IBM and the University of Melbourne to provide next generation computational capacity for [life sciences](#) research within the VLSCI in conjunction with the IBM Research Collaboratory for Life Sciences–Melbourne.

The Victorian Government and the University established the \$100 million VLSCI to strengthen the research capabilities and outcomes of Victorian life sciences research. The VLSCI has drawn computation and biology experts from around the world to manage the supercomputer resource and provide training and support to researchers unaccustomed to working at this scale.

Expected to be operational by June 2012, the IBM supercomputer will provide 836 teraflops of processing power – the equivalent computing power of more than 20,000 desktop computers – making it one of the fastest supercomputers in [Australia](#), based on the Top 500 list (www.top500.org), and the fastest supercomputer dedicated to life sciences research in the southern hemisphere.

The Green500, for a third time, ranked the IBM [Blue Gene/Q](#) as the world's most energy-efficient supercomputer, in its latest edition announced in November 2011.

Professor Jim McCluskey, Deputy Vice-Chancellor (Research) at the University of Melbourne, said the machine's gigantic capacity would assist life sciences researchers to fast track solutions to some of the most debilitating health conditions.

"Through this [supercomputer](#), scientists will be able to advance their work in finding cures and developing improved treatments for cancer, epilepsy and other devastating diseases affecting the lives of Australians and people worldwide," he said.

"This is an extraordinary asset to the life scientists of Victoria and Australia."

Glenn Wightwick, Director, [IBM](#) Research and Development – Australia, said: "Completing computationally intensive projects is critical in achieving new breakthroughs in the understanding of human disease and translating that knowledge into improved medical care."

"IBM's historic role in developing the supercomputers that provide the power behind critical applications in every industry, including life sciences, has uniquely positioned us to provide reliable supercomputing at the highest level."

Professor Peter Taylor, Director of VLSCI, said the new high performance computer was designed specifically for large-scale and highly complex scientific problems.

"This immense computing power will add tremendous value to the huge data sets currently generated by the Victorian biotechnology hub," he

said.

Provided by University of Melbourne

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