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## WEB EXTRA: Researchers get access to powerful new computing tools

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By Jennifer Ryan

Funding for a nationwide network of high performance computing (HPC) facilities was announced Thursday in Toronto, meaning researchers at Canadian universities will soon have access to powerful new computing tools which will allow them to share ideas with colleagues and researchers across the country.

Byron Southern, a physics professor at the U of M says, "This national network will not only be a great new tool for individual research programs, it will also open the door to new collaborations between researchers at different institutions."

Imagine researchers from universities on opposite coasts sharing their findings and theories with one another as though they were all in the same room, as though they were sitting on the same couch.

Imagine a researcher in the Maritimes is investigating the cause of a rare form of skin cancer. At the same time, a researcher in Ontario discovers the exact location of this gene. Meanwhile, scientists in British Columbia are working to map the entire human genome. Now these researchers will all be able to work together.

Dr. Eliot Phillipson, president and CEO of the Canada Foundation for Innovation (CFI) said, "this investment will provide researchers with the tools to solve large-scale computational problems that we could not have imagined tackling 10 years ago."

WestGrid is the biggest of the seven major HPC consortia in Canada who decided to work together on a unified strategy to tackle these problems rather than competing for resources. The result?

Now, it is possible for Canadian researchers to tackle problems such as "climate modeling and prediction, deciphering the human genome and solving compelling problems in science and engineering," says Jonathan Schaeffer, who led WestGrid's participation in the project. "(Thursday's) announcement is a historic day for Canadian research," he says.

For Manitoba, the investment means that the province's universities will be able "to compete on a level playing field with the rest of the world," Southern says. Now Manitoba's universities will be able to highlight their strengths as they work with other Canadian universities towards a common goal.

CFI announced it will contribute \$78 million to the project, with the Natural Sciences and Engineering Research Council of Canada (NSERC) providing an additional \$10 million. Provincial and industry sources are expected to match the funds, bringing the total to nearly \$180 million.

Both the University of Winnipeg and the University of Brandon, as well as the University of Manitoba, will receive an HPC facility once funding is confirmed. Southern says that the province's financial contribution to the project is not definite yet, but that the researchers are "optimistic."

Schaeffer predicts that, including provincial and industry matching funds, WestGrid will receive around \$50 million. It is not yet known what percentage will go towards Manitoba's universities, as WestGrid has 14 partner institutions throughout the four western provinces.

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