

## Top U of A scientist to unlock plant DNA

Researcher Gane Ka-Shu Wong hopes to tap into agricultural medicine cabinet with new \$2M project

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EDMONTON - A star recruit to the University of Alberta has started an unprecedented project to study the gene sequences of 1,000 plants.

Worldwide, the DNA of only about 100 plant species have been analyzed.

"I wanted to exceed anything that's been done in the history of science. That was the point," said Gane Ka-Shu Wong, who helped found genome labs in Beijing and at the University of Washington. "One hundred wouldn't have been impressive and 1,000 is the next order of magnitude."

The information, which will be compiled over two years, is expected to lead to agricultural, environmental and human health advancements.

"There are undoubtedly medicines waiting in those plants," said Bill McBlain, a senior administrator at the university.

Roughly half of pharmaceutical drugs are derived from plants, Wong said, which opens the door for others to be discovered through his research. However, other potential discoveries could be made in biofuels and other bioproducts. A list of the plants involved is still being compiled.

The project is meant to be a head-turner in the scientific community in the hopes it will bring more talent, or at least collaboration, to the University of Alberta.

"This is an interesting time because in the U.S. they're in a major contraction, which was true before the recent economic downturn," Wong said. "There is a huge opportunity, if Alberta is clever, to recruit people."

Doug Horner, Minister of Advanced Education and Technology, said the project is a provincial investment.

"You invest smartly, you don't invest willy-nilly," Horner said. "This is a perfect example of a great investment. We will work collaboratively with Dr. Wong and the people he brings to the province."



CREDIT: Chris Schwarz, The Journal  
Alberta researcher Gane Ka-Shu Wong will lead the Alberta 1,000 Plants Initiative, an international project focused on finding genomic information that could lead to new medicines and a range of value-added plant products.

The project has a number of supporters and partners, including the Alberta Government, the Alberta Agricultural Research Institute, Genome Alberta, the Beijing Genomics Institute and Musea Ventures, an American venture fund.

The \$2-million Alberta 1,000 Plants Initiative is part of a four-year, \$4-million research program under Wong. He was recently named Research Chair in Biosystems for Alberta's Informatics Circle of Research Excellence.

Thursday's announcement of the project was also an announcement of Wong himself, a recruitment coup for the U of A.

A Canadian citizen, he took engineering at the University of British Columbia before doing his graduate work south of the border. He was a founding member of both the University of Washington Genome Centre and the Beijing Genomics Institute. He has lived in Edmonton for a year.

In addition to his research, Wong will take on a teaching role with both undergraduate and graduate students.

Wong said he chose to come to the U of A because of the school's expansion plans and chance to work as part of a collaborative team.

"I wanted to work with actual clinicians, not just people with PhDs," he said. "Clinicians with real patients who have a sense of urgency that basic scientists like me don't have."

The Alberta government contributed \$1.5 million to the project through the Genome Alberta group.

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