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## Provincial cash creates Ingenuity Centres

Total of \$14 million for machine learning and carbohydrate science

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Dr. David Bundle and Premier Ralph Klein view a 3-D graphic of a carbohydrate. Klein was on campus to announce the creation of two new multi-million-dollar research centres based in the Faculty of Science.

The Alberta government has announced the creation of two new multi-million dollar research centres based in the Faculty of Science at the University of Alberta. Through the Alberta Ingenuity Fund, an endowment started in 2000 with \$500 million from the Alberta government, the Alberta Ingenuity Centre for Machine Learning and the Alberta Ingenuity Centre for Carbohydrate Science will each receive \$1.2 million in the first year of a five-year award. Each centre may receive about \$7 million over the term of the award for a potential combined total of \$14 million.

The Alberta Ingenuity Centre for Machine Learning will concentrate on creating smarter computers for use in areas such as e-commerce, industrial processing, improved diagnostics for health care, everyday software applications and interactive entertainment. The principal investigators at the centre will be Drs. Russ Greiner (centre leader), Robert Holte, Randy Goebel, and Jonathan Schaeffer, all of whom are computing science professors at the U of A.

"With this funding we hope to take our expertise in machine learning, which is already recognized across Canada, and create a critical mass in this area that will get the attention from people in this field all over the world," said Dr. Randy Goebel, chair of the U of A Department of Computing Science.

The Alberta Ingenuity Centre for Carbohydrate Science will research the chemistry of the complex sugars that coat cells and are responsible for cellular interactions and many immune reactions. New families of carbohydrates will be made that could lead to the development of new vaccines. New analytical tools, including instrumentation, will be developed to study the structure of complex carbohydrates. The principal investigators will be chemistry professors Drs. David Bundle (centre leader), Ole Hindsgaul, Monica Palcic, and medical microbiology and immunology professor Glen Armstrong. Drs. David Schriemer and Kenneth Ng, both of the University of Calgary, are also principal investigators.

Bundle said the funding will allow his research team "a flexibility and capability that we haven't had before." He explained that without long-term funding it is difficult to maintain people who know the specialized methodology and techniques necessary to conduct desired research.

"This funding will allow us to hire senior people for longer, which allows us to maintain interdisciplinary skills and train our students in these skill sets, many of which are in high demand in industry right now," Bundle said.

"Alberta Ingenuity support for the two new centres will be instrumental in keeping the bright research stars we already have in these areas here and attracting high quality scientists from all over the world to Alberta to join and strengthen these groups. That combination can only result in new discoveries, new technologies, and ultimately, new industry and new jobs for Albertans," said Alberta Premier Ralph Klein, who was on campus Wednesday to make the announcement.