



## QUEBEC AND FRANCE TEAM UP FOR BETTER BIOMEDICAL RESEARCH

An international partnership between a non-profit organization based in Quebec and a health cluster in France is taking shape in the health and therapeutic innovation sector. The Quebec Consortium for Drug Discovery (CQDM) is collaborating with Alsace BioValley in order to develop new tools to facilitate the discovery of safer and more effective drugs.

The joint program provides for the co-financing of highly innovative R&D collaborative projects that have the potential for a strong industrial impact. In particular, from 2011 to 2013, CQDM and Alsace BioValley are issuing yearly thematic calls for proposals open to researchers in Quebec and Alsace. Projects are funded for a maximum \$1.4 million over three years. CQDM funds the research being performed in Quebec for a maximum \$700,000 per project over three years.

"The projects that are selected are ones with the potential to have a big impact on research," says Dr. Diane Gosselin, vice-president of research and business development at CQDM. "By definition, this means that there will be a big need and a big market. The proposals also must have a strong scientific basis, and they must address a really crucial concern."

She notes that effective treatments are lacking for many complex diseases that frequently occur in the population. "Treatments have already been found for the easy to treat diseases; and these are very efficient treatments" says Gosselin. "However, we don't have the solutions to all diseases, especially cancer."

### Better tools for better research

One of the keys to finding effective treatments for complex diseases, according to Gosselin, is to have better tools and technologies for researching new drugs and diagnostic equipment. For example, some illnesses, such as pancreatic cancer, are usually only diagnosed once the disease has progressed to its final stages. A better diagnostic tool could make it possible to detect these sorts of illnesses in the early stages – and thereby open the door to research into treatments that could make a difference.

However, individual pharmaceutical companies don't investigate research tools because this sort of process-oriented research rarely fits into their business models, according to Gosselin.

"Pharmaceutical companies won't spend the time on the tools that will allow the research to go faster. So, we are pooling the money and funding research into the tools for biomedical research," says Gosselin, noting that the joint program is aligning international resources. "Once developed the pharmaceutical companies don't mind sharing the tools especially for the more risky projects. The tools will make the more risky projects attractive." Research tools developed as a result of the collaboration will be publicly available.

### Ongoing research resulting from the first call for proposals

The CQDM/Alsace joint program gives priority to supporting projects that focus on enabling technologies that are designed to develop new diagnostic tools; imaging tools and technologies for the discovery of new drugs; and instruments and medical devices platforms.

For example, one of the collaborative projects that was selected in April 2011 from the first competition focuses on developing tools that will help with examining the underlying mechanisms at work in diseases of the central nervous system (CNR) – illnesses such as Alzheimer's, Parkinson's, Huntington's, schizophrenia, depression or autism.

One reason why these diseases are ill-defined is that researchers don't have the tools to examine the processes happening at the micro-level, for example the action of synapses. Therefore, with support from the joint program, researchers will develop ways of examining events happening at the cellular level, including an approach to looking at mechanisms at the level of the synapse. These tools will help researchers study the effect of drugs and predict drug effects, at the level of neurons.

Gosselin notes that some complex diseases may eventually be treated with more than one drug. She cites the example of AIDS, noting that it was particularly challenging to find drugs to treat the disease because of the way in which the virus mutated. However, researchers were ultimately successful in developing a variety of drugs that work together to allow people with the illness to live a much longer life.

"We are going to see complex and difficult to treat illnesses more frequently as the population ages," says Gosselin, pointing to CNR diseases and illnesses such as cancer and cardiovascular disease. "That's why it's critical that we invest now in the work of developing tools that will help pharmaceutical companies in their quest to treat these illnesses."

CQDM is a non-profit organization whose mission is to identify, fund and support research projects carried out in partnership between public sector academic and hospital milieus and private sector biotechnology and contract research organizations. Research projects funded by CQDM are aimed at developing tools or enabling technologies that facilitate and accelerate the drug discovery process. The CQDM is funded in part through the NCE's Business-Led Networks of Centres of Excellence (BL-NCE) program, the Quebec Ministère du Développement Économique, de l'Innovation et de l'Exportation (MDEIE) and the Fonds de la Recherche en Santé du Québec (FRSQ) and through industry support.

For more information about CQDM, please go to: [www.cqdm.org](http://www.cqdm.org)

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