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Press Release
May 30, 2008.

Western Diversification Funds Shellfish Genomics Research

Dr. James Lunney Member of Parliament for Nanaimo-Alberni, on behalf of the Honourable Rona Ambrose, President of the Queen's Privy Council for Canada, Minister of Intergovernmental Affairs and Minister of Western Economic Diversification today announced \$410,000 towards the establishment of shellfish genomics research lab in the Centre for Shellfish Research at Vancouver Island University.

Dr. Lunney, a strong supporter of Vancouver Island University and the Centre for Shellfish Research stated "Our Government's contribution to this project will ensure Canadians are at the leading-edge of shellfish aquaculture, an industry that has significant economic potential for coastal communities, and this project will be the first of its kind in British Columbia."

Dr. Ralph Nilson, President and CEO of Vancouver Island University was delighted to receive the cheque and emphasized the important role that Vancouver Island University plays in supporting coastal communities. "This institution has a long tradition of responding to community needs as economic and social conditions evolve. The Centre for Shellfish Research at VIU has taken a leadership position in supporting the research needs of the shellfish aquaculture industry and in doing so is providing valuable research and learning opportunities for VIU undergraduate and graduate students."

Dr. Helen Gurney-Smith, a shellfish research scientist recently recruited from the UK, will lead the shellfish genomics research initiative. Gurney-Smith has already established an international network of genomics experts to undertake collaborative genomics research projects and just returned from a national genomics research meeting. She explained, "most people have heard the expression 'happy as a clam', but the truth is we do not have any tools to determine if a clam is happy (healthy). Genomic science can provide the necessary tools".

"My team is extremely excited about the research opportunities that will be available as a result of this financial contribution. The BC shellfish industry has suffered from annual mass mortality events, the causes for which are unknown. We propose to create and use novel gene chips (microarrays) to develop a ranking of stressing agents to determine which factor or combination of factors is instrumental in these mortality events."

“In addition, the genomics tools we develop can be used to examine the influence of changing environmental conditions (e.g. climate change, pollution) as shellfish, particularly mussels, act as an ecosystem health indicator sentinel species.”

Don Tillapaugh, Director of the CSR re-emphasized the importance of genomics research stating that in 2007 alone, unexplained shellfish mortality resulted in losses of over \$6 million. “The application of genomics research knowledge produced with this leading edge scientific equipment by Dr. Gurney-Smith and her team will revolutionize our understanding of shellfish physiology” said Tillapaugh. “The resulting development of a shellfish health assessment “tool-kit” will have a profound impact on shellfish husbandry practices and this will translate directly to positive benefits on the bottom line of BC shellfish farmers.

“There is another farming expression - ‘happy cows make more milk’. Well happy shellfish grow faster (make more meat). If shellfish are healthy, they grow faster to harvest size making the crop more profitable to the farmer – simple economics but extremely important.”

In addition, because shellfish respond (physiologically) to changes in their environment, genomics tools allow us to determine their response (and to what factor) at an early stage in the event. As there are shellfish farms all along the coast of BC, they become an early warning system, informing society of impending change in the marine coastal ecosystem e.g. ocean warming, pollution.

Thus shellfish genomics science will have important benefits to the shellfish industry and to BC society overall. We are honoured to be able to take a lead role in this exciting research area and applaud Western Diversification for their recognition of the importance of developing this new research capacity in BC.”

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