CPRC Update – Project Funding and CPRC Scholarship Award

CPRC completed its 2014 funding process at the Board of Directors November meeting by providing approval for eight projects that address several poultry industry priorities. Final approval for some projects is based on the researchers securing full funding for their proposed research projects while other projects are fully funded and ready to begin. The Board also awarded the 2014 Postgraduate Scholarship, a difficult task because of the very strong group of applicants.

Genetic Preservation

Dr. Carl Lessard, an Agriculture and Agri-Food Canada researcher located at University of Saskatchewan and Curator of the Canadian Animal Genetic Resources program, will conduct research on conservation and regeneration of chicken and turkey breeds using adult gonadal tissue. CPRC has funded a series of projects to examine the potential for cryopreservation of poultry genetic material and this project carries that research program forward.

Poultry Welfare and Behaviour

Three projects address welfare and behaviour issues. **Dr. Tina Widowski** from the Poultry Welfare Research Centre, University of Guelph, will evaluate existing and new euthanasia technologies for chickens and turkeys. **Dr. Karen Schwean-Lardner** plans to conduct tests of the impacts of infrared beak trimming on young pullets' behaviour, water consumption and ability to peck. **Drs. Martin Zuidhof**, University of Alberta, and **Gregoy Bedecarrats**, University of Guelph, will cooperate on research to optimize lighting for precision broiler breeder feeding. Dr. Zuidhof developed a computerized precision feeder in prior research to ensure optimum broiler breeder weight is maintained to help maximize production.

Immune System Enhancement

Improving the innate immunity of poultry is a major industry priority with the increasing discussion of the use of antimicrobials and potential for increased antimicrobial resistance in animals and humans. Three projects look at methods to improve the poultry immune system. **Dr. Shayan Sharif** from the Ontario Veterinary College, University of Guelph, will investigate the effect of *in ovo* delivery of nutrients and feed additives on the development of the chicken immune system. **Dr. Susantha Gomis**, University of Saskatchewan, will continue research previously funded by CPRC that looks at the use of CpG-ODN to stimulate the innate immunity in poultry. **Dr. Mohamed Faizal Careem**, University of Calgary, will test the use of *in ovo* delivered innate immune-system stimulants to increase resistance to respiratory viruses. This research is also a follow-up to work that CPRC previously co-funded.

Poultry Health

Screening of birds for disease is used to identify potential outbreaks that could damage a flock or increase risks to poultry production in a region or the country as a whole. Present approaches to testing for exposure to avian influenza for the national surveillance program are based on taking blood samples from birds and sending them to a laboratory for analysis. **Dr. Kathleen Hooper-McGrevy** of Canadian Food Inspection Agency's National Centre for Foreign Animal Diseases will evaluate a standardized test to use egg-derived immunoglobin for screening of antibodies to

avian influenza to avoid the stress and cost associated with handling layers and taking blood samples.

CPRC Scholarship Award

CPRC awarded its 2014 Postgraduate Scholarship to Alexander Bekele Yitbarek, a Ph.D. student under the supervision of Dr. Shayan Sharif, University of Guelph. Alexander completed his M.Sc. at the University of Manitoba in 2009 and then worked with Dr. Juan Carlos Rodriguez-Lecompte as a research technician until 2013. He followed that as a research associate with Nutreco Canada until commencing his studies with Dr. Sharif.

Alexander's research will look at poultry immunology and developing a better understanding of the role of different toll-like receptors and cytokines in modulation of the immune system in chickens. His research focus will be mainly in understanding the role of TLR receptor ligands in controlling avian influenza virus. He will also conduct research on the effect of probiotics as nutritional modulators in the search for the replacement of antibiotic growth promoters in poultry diets.

For more details on any CPRC activities, please contact The Canadian Poultry Research Council, 350 Sparks Street, Suite 1007, Ottawa, Ontario K1R 7S8, phone: (613) 566-5916, fax: (613) 241-5999, email: info@cp-rc.ca, or visit us at www.cp-rc.ca.

The membership of the CPRC consists of Chicken Farmers of Canada, Canadian Hatching Egg Producers, Turkey Farmers of Canada, Egg Farmers of Canada and the Canadian Poultry and Egg Processors' Council. CPRC's mission is to address its members' needs through dynamic leadership in the creation and implementation of programs for poultry research in Canada, which may also include societal concerns.