

Manitoba-grown talent: Dr. Carla Taylor

Dr. Carla Taylor is a busy woman.

A leader in studying human nutrition, Dr. Taylor has worked on more than 20 projects funded through *Growing Forward 2's* Growing Innovation – Agri-Food Research and Development Initiative and many additional research projects funded by other organizations.

Taylor credits growing up on a farm in southwestern Manitoba to being the biggest influence on her path to eventually becoming a principal investigator of metabolic nutrition at Canadian Centre for Agri-Food Research in Health and Medicine (CCARM). She says being around crops and food production sparked her interest in how they functioned in the human body, and their relationships with preventing and managing chronic diseases.

"I'm one of the few people in nutrition research who grew up on a farm, and with my work I like to keep that connection with farming and agriculture," she says.

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Dr. Taylor holds a bachelor's degree in human ecology from the University of Manitoba (U of M) and a PhD in nutritional sciences from the University of Guelph, where she investigated the roles of zinc and copper in antioxidant defense. Further training brought her to the University of Michigan in Ann Arbor and the University of Washington in Seattle, where she continued her research on antioxidant and immune defense systems.

Since moving back to Manitoba she has become a full professor at the U of M and continues to be a mentor for graduate students. She has also served on grant selection committees for the Natural Science and Engineering Research Council of Canada and the Canadian Institutes of Health Research, and she is an associate editor for the *British Journal of Nutrition* and for *Lipids*.

Dr. Carla Taylor



Although she usually has multiple projects on the go—for example, she is currently the principal investigator on four different studies relating the effects of different foods on a person's blood vessel health—she always has time for her students.

"She had a lot of graduate students working under her, several grants for research projects, as well as university responsibilities with teaching and other roles, but she never appeared to be under any stress. She was always very friendly and willing to take time to talk," says Julianne Curran, who was mentored by Dr. Taylor for five years during her MSc and PhD studies.

Curran, who now works as the director for nutrition, scientific and regulatory affairs at Pulse Canada, examined the functional food potential of buckwheat with Dr. Taylor as her co-advisor. She says it was Dr. Taylor's ability to always point to the relevance of research that influenced her interest to work in the industry.

"She made a point of communicating regularly with her students and always provided clear direction and guidance. She was very patient, thorough and organized in her planning. Whenever things didn't work as planned, she always found a positive aspect to the outcome," Curran says.

That care for the growth of her students is shown by what Dr. Taylor says is one of her favourite parts of teaching.

"Someone will come to class and they might have seen something on the Internet or TV about a new nutraceutical, or diet fad, or a cure-all fruit or vegetable from another part of the world. We'll dissect and discuss what the correct parts of the information are and what the incorrect parts are," she says. "It's a good way to learn and be self-informed."

For more information on Dr. Carla Taylor's research projects visit sbrc.ca.

Research improving health in Manitoba

Between 1998 and 2013 Dr. Carla Taylor worked on 23 government funded research projects. See below for eight projects she worked on with her collaborator, Dr. Peter Zahradka:

\$34,600	Effects of omega-3 fatty acids on immune function in obesity
\$124,408	Reducing insulin resistance and atherogenesis with conjugated linoleic acid
\$50,000	Plant-based omega-3 fatty acids for modulation of adipose dysfunction
\$57,750	Effects of canola oil and canola/flaxseed oil blend on in vivo insulin sensitivity in obesity and insulin resistance
\$58,600	Effects of flaxseed oil on glycemic control, insulin resistance and adipose metabolism
\$25,620	Bioactive compounds in buckwheat for prevention and management of diabetes
\$70,000	Effects of specific conjugated linoleic acid (CLA) isomers on reduction of insulin resistance and atherogenesis
\$62,000	Effects of plant versus marine sources of dietary omega-3 fatty acids on adipose function and hepatic steatosis

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