

## **PRO1805: Development of Pre-Packaged Pulse-Based Meals to Ameliorate the Negative Health Consequences of Sedentary Behaviour**

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The research team developed a pulse-based recipe book with meals containing lentils, chickpeas, peas, and beans. In the previous study the team showed that meals prepared from the cookbook were effective for reducing risk factors such as high blood pressure and high cholesterol levels in women who were at risk for cardiovascular disease. The meals were prepared in a research kitchen for research participants. People are aware that pulse-based meals are healthy, but major barriers to pulse consumption are that people do not know how to prepare pulse-based meals, and do not have time for meal preparation. The current research is attempting to overcome these barriers by developing pre-packaged, ready-to-eat pulse-based meals, based on the recipe book. The research has three specific objectives: 1) to develop 10 pulse-based meals that can be packaged for easy preparation by consumers (i.e. that can be simply microwaved or eaten cold as salads); 2) To identify which of the meals are most preferred by consumers; 3) To assess whether these preferred pre-package meals are effective for reducing risk factors for cardiovascular disease in office workers if they replace their regular day-time lunches and snacks with these meals. Ten pre-packaged meals have been developed in collaboration with the Saskatchewan Food Industry Development Centre. These meals include three salads, three soups, chili, chana masala, tagine, and pilaf containing lentils, chickpeas, or split peas. The meals are currently being evaluated for taste preference in 200 consumers. The top seven meals will be tested in a clinical trial of 100 office workers who will replace their regular work-day lunches and snacks with these pulse-based meals. The effect of consuming these meals for 2-months for reducing blood sugar and cholesterol levels, improving body composition, and reducing blood pressure will be evaluated. Hopefully, the health and consumer-preference evidence will support the inclusion of these pre-packaged meals on grocery store shelves.