



### Catherine Chan, PhD

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- Professor, Faculty of Medicine & Dentistry, Department of Physiology, University of Alberta
- Scientific Director, Diabetes, Obesity & Nutrition Strategic Clinical Network, Alberta Health Services
- Research Affiliate, Glenrose Rehabilitation Hospital

### Recent Publications

Yang K, **Chan CB**. Epicatechin Potentiation of Glucose-Stimulated Insulin Secretion in INS-1 Cells is Not Dependent on Antioxidant Activity. *Acta Pharmacologica Sinica*, 2018 May; 39(5):893-902. doi: 10.1038/aps.2017.174. Epub 2018 Feb 1.

Sievenpiper JL, Dworatzek PD, **Chan CB**, Freeze C, Williams SL. Clinical Practice Guidelines: Nutrition Therapy, *Canadian Journal of Diabetes*, 42, (Suppl 1): 64-79, 2018.

Raj GD, Hashemi Z, Soria-Contreras DC, Babwik S, Maxwell D, Bell RC, **Chan CB**. Adherence to diabetes Dietary Guidelines Assessed Using a Validated Questionnaire Predicts Glucose Control Among Adults with Type 2 Diabetes. *Canadian Journal of Diabetes*, 42:78-87, 2018.

Li J, Yang K, Ju T, Ho T, McKay C, Gao Y, Forget S, Field CJ, **Chan CB** and Willing B. Early Life Antibiotic Exposure Affects Pancreatic Islet Development and Metabolic Regulation. *Scientific Reports*, 7:41778, 2017.

Assad G, Soria-Contreras DC, Bell RC, **Chan CB**. Effectiveness of a Lifestyle Intervention in Patients with Type 2 Diabetes: The Physical Activity and Nutrition for Diabetes in Alberta (PANDA) Trial. *Health Care*, 4:73, 2016.

Dr. Chan's research is at the intersection of nutrition, physiology and behavior. Dr. Chan Led the Physical Activity and Nutrition for Diabetes in Alberta (PANDA) team, an interdisciplinary effort to improve health outcomes in type 2 diabetes by developing, implementing and evaluating nutrition and physical activity interventions that can be applied in clinical and community settings. In addition, she conducts laboratory-based research on insulin, its secretion and action with a current focus on nutritional modulators of these endpoints in obesity and diabetes.

With Rhonda Bell, Dr. Chan is the author of *Pure Prairie Eating Plan (PPEP)*, a menu plan and cookbook focusing on simple

recipes made from foods grown on the prairies. PPEP grew out of the PANDA research developing materials for diabetes education bit is a recipe for healthy eating for the whole family.

As Scientific Director of the Diabetes, Obesity & Nutrition Strategic Clinical Network, Dr. Chan supports building research capacity as well as specific research quality improvement initiatives spearheaded by the Diabetes, Obesity and Nutrition Strategic Clinical Network. At present, these include implementation of a Diabetes Foot Care Clinical Pathway, In-Hospital Diabetes Management, Bariatric Friendly Care in Hospital and Malnutrition in Seniors.

### Clinical Implications of Research:

PPEP and our associated educational package has been used by dietitians to promote health eating in their clients. Basic research on food and food components has led to clinical trials. The RCT studies could be included in the development of nutrition guidelines for diabetes or cardiovascular disease.