# Graduate Department of Pharmaceutical Sciences

The Graduate Department of Pharmaceutical Sciences at the Leslie Dan Faculty of Pharmacy

#### **PRESENTS**

# The Canadian Partnership for Tomorrow Project: A Population Cohort for Health Research

#### PRESENTED BY

### DR. LUCA F. PISTERZI

Program Manager, The Canadian Partnership for Tomorrow Project Canadian Partnership Against Cancer, Toronto ON

11:00 a.m., Friday, December 9, 2016

Room 850, 144 College Street Leslie Dan Faculty of Pharmacy University of Toronto

Hosted by: Dr. James Wells; tel: (416) 978-3068; email: jwells@phm.utoronto.ca







# CANADIAN PARTNERSHIP AGAINST CANCER CANADIAN PARTNERSHIP FOR TOMORROW PROJECT

The Canadian Partnership for Tomorrow Project (CPTP) is a pan-Canadian, longitudinal cohort established to provide researchers with a platform to better identify and understand the links among the many known risk factors linked to cancers and chronic diseases. Initiated in 2008, CPTP is a unified network of five cohorts across Canada: the BC Generations Project in British Columbia, Alberta's Tomorrow Project in Alberta, the Ontario Health Study in Ontario, CARTaGENE in Quebec, and the Atlantic PATH, which includes Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland and Labrador.

Cumulatively, CPTP's five regional cohorts represent more than 300,000 individuals aged 30–74 years residing in one of the eight provinces listed above. Each participant has completed a baseline questionnaire that included information on socio-demographic characteristics (*e.g.*, age and sex, country of birth, languages, ethnic background, education, marital/partner status, income, family and household structure, job-related information), cancer screening history, personal and familial history of cancers, personal and familial history of diseases, medication use, reproductive history, lifestyle and health behaviours (*e.g.*, alcohol use, tobacco use, passive smoke exposure, fruit and vegetable intake, sleep patterns, sun exposure, physical activity using the International Physical Activity Questionnaire (IPAQ) and self-reported physical measures (*e.g.*, height, weight and waist and hip circumferences).

A subset of more than 90,000 participants have also visited study centres and provided physical measurements that include height, weight, waist and hip circumference, blood pressure, grip strength, and resting heart rate. A range of biological samples have also been collected from the cohort, including non-fasting venous blood samples (> 144,000 participants), urine samples (> 101,000 participants), toenail samples (> 31,000 participants) and saliva samples (> 18,000 participants).

Participants have provided consent to be re-contacted for follow-up data or biosample collection events, for the opportunity to take part in new sub-studies of a particular focus, and for passive follow-up through linkage with their provincial health administrative data.

The Canadian Partnership for Tomorrow Project is an initiative of the Canadian Partnership Against Cancer, the national organization responsible for leading a coordinated cancer strategy across the country.

http://www.partnershipagainstcancer.ca/ https://portal.partnershipfortomorrow.ca/



# A UNIQUE CANADIAN RESOURCE

- With 300,000 participants, CPTP is Canada's largest health research platform designed to accelerate innovative cancer and chronic disease studies.
- CPTP is the Canadian Partnership Against Cancer's single largest investment and our regional partners have made significant financial and in-kind contributions.
- The dataset includes information about health, lifestyle, environment and behaviour from more than 300,000 Canadians aged 35-69 at the time of recruitment.
- Large subsets of participants have also provided biological samples, such as blood and urine, and physical measures, which were collected in a standardized manner in assessment centres.
- Participants have also agreed to linkage of their questionnaire and bio-specimen data to their administrative health records and are open to being re-contacted by their regional cohorts.
- The size of the cohort and the richness of its epidemiological, clinical and biological data positions Canada amongst the leaders in longitudinal cancer and chronic disease research.
- The power of this cohort will increase with time as new data are added and technology advances.

# A demographic and health status snapshot of CPTP participants

Based on participants' responses as of mid-2014

## PARTNERS IN ACCELERATING HEALTH RESEARCH

- CPTP represents an unprecedented collaboration among many organizations, including cancer control and health research agencies, working together to build an unparalleled national collection of health data, genomic information and biological samples.
- CPTP is a partnership of regional cohorts: BC Generations Project; Alberta's Tomorrow Project; Ontario Health Study; Quebec's CARTaGENE project; and Atlantic PATH. Host institutions include the BC Cancer Agency; Alberta Health Services; Ontario Institute for Cancer Research; CHU Sainte-Justine; and Dalhousie University.





A unique Canadian health research resource

**OPEN TO LEARN MORE** 

#### "We have managed to capture data for nearly one of every 50 Canadians age 35 to 69 – that's an incredible tour de force."

### CORE QUESTIONNAIRE THEMES

#### Participants self-reported the following:

- Social demographics and ethnic background
- Education level and employment status
- Personal and family disease histories
- Cancer screening history
- · Sex and reproductive health
- Medication use
- Sleep patternsSun exposure
- Diet and nutrition
- Alcohol use
- · Tobacco use/exposure to second-hand smoke
- Physical activity level
- · Height, weight and waist circumference

#### **ADDITIONAL MEASURES**

#### Biosamples (to date)

- Over 150,000 DNA containing bio-samples (including at least 132,000 venous blood samples)
- 101,000 urine samples
- 30,000 toenail clippings

Physical measures (in evaluation centres) on up to 90,000 participants including:

- Height and weight
- Waist and hip circumference
- Blood pressure and resting heart rate
- BMI and body composition
- Grip strength

#### **DATA HARMONIZATION**

- Data have been harmonized to facilitate the co-analysis within CPTP and cooperation with other large-scale international research initiatives, such as the UK Biobank or European Prospective Investigation into Cancer and Nutrition (EPIC) study.
- CPTP's national harmonized dataset, which includes 700+ core questionnaire variables, was developed in collaboration with Maelstrom Research (McGill University).
- Data curation methods and software are in alignment with national and international standards.

#### **DATA ACCESS\***

 The CPTP database employs a single point of access and a comprehensive request management and evaluation process.

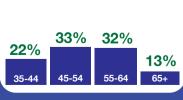
Dr. Philip Awadalla, Scientific Director, CARTaGENE

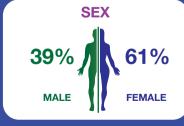
- Access to CPTP data\* will be determined based on provision of a scientifically and ethically sound research plan, use of appropriate privacy and confidentiality measures and evidence of adequate financial resources to complete the proposed research.
- Access to CPTP data is governed by a policy that enables informed and efficient collaboration, encourages fair, timely and transparent access to data for high-quality research; and ensures that access is facilitated in a scientific and ethical manner.

CPTP considers the rights and interests of participant privacy to be paramount.

\*Starting April 1, 2015, researchers will be able to request access to CPTP data. Data from certain core questionnaire variables, from additional measures and access to samples will be available later in 2015/16. More information is available through CPTP's website.

#### AGE AT RECRUITMENT













For more information, please visit: www.partnershipfortomorrow.ca

A national initiative sponsored by:

NADIAN PARTNERSHIP
AGAINST CANCER

PARTENARIAT CANADIEN
CONTRE LE CANCER

#### Funding Partners:

British Columbia Cancer Foundation • Alberta Innovates-Health Solutions • Alberta Cancer Foundation • Ontario Institute for Cancer Research • Public Health Ontario • Genome Quebec • Genome Canada • Canada Foundation for Innovation

Production of this document was made possible by a financial contribution from Health Canada through the Canadian Partnership Against Cancer. The views expressed represent those of the Canadian Partnership Against Cancer.