DNA genotek

Case study

Thyroid cancer in France – CATHY Project

P. Guenél (U754) - Principal Investigator, Pierre Laurent Puig (U775) - Director, Claude Mulot (U775) - Head Engineer and Audrey Millory (U775)
CRB Epigenetic, Inserm U775 – Biobanking and sample processing,
Inserm U754 – Study design and execution

About the study

Incidences of thyroid cancer within France have rapidly increased over the last several years, with over 4,000 new cases being diagnosed each year. The primary goal of the thyroid cancer in France – CATHY Project was to better understand the risk factors associated with the development of thyroid cancer. The study focused on environmental (Chernobyl disaster in 1986) or professional conditions associated with endocrine malfunction (phtatlates, dioxins, alkylphenols, etc.) found in water, soil and food.

This project will also serve as a foundation to establish a DNA bank which will permit future studies of candidates genes linked with the apparition of thyroid cancer and to study gene-environment interactions.

Participants in the study will be from regions of Marne, Ardennes and Calvados. Participants must be at least 25 years old. The study will include 800 participants and 800 control samples.

Main challenges

Given the scope of the CATHY Project, the investigators recognized that they would face several challenges in achieving their objectives. The primary issues included:

- Maximizing compliance rates in order to achieve the desired number of samples.
- Implementing a collection technique which would enable collection from geographically dispersed participants.
- Collecting high quality and high quantity DNA samples for analysis and biobanking.
- Selecting an option that would facilitate long-term storage of samples.
- Minimizing sample collection and logistics costs.

DNA Genotek Inc.
2 Beaverbrook Road
Ottawa, ON, Canada K2K 1L1
Subsidiary of OraSure Technologies, Inc.

Toll-free (North America): 1.866.813.6354
Tel.: 613.723.5757 • Fax: 613.723.5057
www.dnagenotek.com
info@dnagenotek.com

Superior samples
Proven performance

Collection methods considered

The CRB Epigenetec team evaluated the possibility of collecting blood samples, buccal swabs or Oragene®•DNA.

Why Oragene•DNA

After evaluating all options, the CRB Epigenetec team decided to use Oragene•DNA as it was the only method that allowed them to overcome their main challenges. The non-invasive nature of the kits and the ability to easily collect from participants from their homes, enabled the team to maximize their compliance rates. Compared with blood, Oragene•DNA reduces the cost of collection as samples are easily shipped via the post and does not require any special shipping terms or packaging. The quality and quantity of DNA is much better than that collected using a buccal swab method. Oragene•DNA/saliva samples are also stable for years at ambient temperature thus reducing the costs and complexity of storage.

Results

The CATHY Project is currently underway. The sample stability in Oragene•DNA is providing the CRB Epigenetec team with a flexible option for sample collection, transportation, stabilization and storage. Oragene•DNA is enabling the team to maximize compliance rates while minimizing sample collection cost and complexity.

MK-00022 Issue 2/2011-12