



**Accelerating  
Research in  
Genomic Oncology**

# **International Cancer Genome Consortium**

The ARGO project is the new phase of the International Cancer Genome Consortium (ICGC); translating genomic knowledge to improve outcomes for people affected by cancer.

ICGC ARGO is an international network of cancer clinicians, researchers and clinical trials groups and patient and public advocates. ICGC ARGO will analyse specimens from 100,000 cancer patients with high quality clinical data to address outstanding questions that are vital to our quest to defeat cancer. Over the next 12 years we will deliver a *million patient-years of precision oncology knowledge* to the world in a manner that allows for broad, but ethically responsible, data sharing and research. Clinical and genomic data generated by ICGC ARGO programs will be exclusively available to its membership for a short period of time before being released to the broader research community.

### **The ARGO Project (Accelerating Research in Genomic Oncology)**

ICGC ARGO is the third phase of the International Cancer Genome Consortium project, which comprehensively mapped the structural aberrations of cancer genomes and advanced our understanding of the molecular basis of cancer. ICGC focused on primary cancers prior to therapy, and has distributed data sets on over 21,000 primary cancers. Although ICGC has achieved much, pivotal outstanding challenges remain to be addressed; unanswered questions that are vital in our quest to defeat cancer.

The key questions addressed by ARGO are:

- 1. How do we use current treatments better?**
- 2. How does a cancer change with time and treatment?**
- 3. How do we translate this knowledge into improved health outcomes and more effective drug development?**
- 4. How do we advance early detection and ultimately prevent cancer?**

## Joining ICGC ARGO

Any research group from academia or industry may become an ICGC ARGO member. Members must commit to the acquisition of molecular and clinical data from a minimum number of cancer patient donors; there are several levels of membership that correspond to the number of donors committed. The sources of cohorts of patients that would constitute ICGC ARGO projects may include:

- Biospecimens from participants enrolled in active clinical trials; or from banked samples from past clinical trials;
- Analyses of samples from clinically well-annotated or longitudinal cohorts that satisfy ICGC-ARGO clinical data requirements;
- Autopsy studies with detailed clinical data
- Population-based studies with detailed clinical and lifestyle data
- Real World Data acquired through health systems.

You can learn more about Joining ICGC ARGO on our [website](#). To apply, prospective members are asked to fill in an expression of interest that describes their project and level of commitment.

## Benefits of Membership

ICGC ARGO members will be able to submit patient genomic, transcriptomic and clinical data to one of a series of ARGO regional data processing centres, where it will be subjected to state-of-the-art QC, alignment, variant calling, annotation and clinical harmonization. The harmonized data will be returned to members in a form that allows it to be compared to data collected by all

other ARGO participants, and a copy of the data will be retained by the processing centre for merging into a central compute cloud-accessible database of all ARGO results. Members will have exclusive access to the data they generate for a period of 12 months, after which it will become available to all members of the consortium. After 24 months, the data will be available to external parties.

## ICGC ARGO Data Features:

- Comprehensive longitudinal annotation; clinical data describing lifestyle, comorbidity, diagnostics, response to therapy and survival
- High quality; using common quality standards for pathology and technology
- Harmonised; using central analysis and pipelines through regional data processing centres.