

In October 2002, Genome Canada created the International Consortium Initiative. This is a new funding programme for large-scale international projects, designed to enhance the status of Canada and Canadian researchers in the international community. A certain number of ICI eligibility criteria were delineated:

- Projects must have clear international visibility.
- The projects must be led by a Canadian researcher whose major research activities will be in Canada.
- The proposed projects must involve an international consortium usually with some governance in which the founders will have proportionate seat on the Board, based on the level of their financial commitment.
- Project should be for a minimum of \$50M over three years with other partners committing together at least 75% of total costs.

Proposals meeting the above criteria would be accepted at anytime and reviewed on a “one-off” basis through a joint peer review process developed by potential funding partners, the final decision being made by the Board of Directors of Genome Canada. Furthermore, Genome Canada decided that promising ICI candidates would be offered administrative support and funding to hold a workshop, and that it would work closely with the applicants throughout the entire process. The workshop would enable the identification of the potential stakeholders and participants and the initiation of a proposal.

Four different but complementary population genomics research projects involving whole populations -- Quebec’s CARTaGENE, GenomEUtwin project (involving 8 countries), Estonia’s genome project and the U.K. Biobank -- decided to come together and create an international consortium (as part of an application to the ICI programme), called *Public Population Project in Genomics (P3G)*.

The P3G project is a project that goes beyond national population genomics projects. It has been launched in order to provide the four projects and, other countries at a later stage, with the resources, tools and know-how to perfect data management for improved methods of transfer and sharing. Its main objective consists in the creation of an open, public and accessible common dataset. Free access by researchers to the data will be conditional upon the legitimacy of the use intended. The motto is transparency and collaboration. P3G will enable the four projects (and at a later stage further countries if they agree to abide by the rules elaborated by P3G and its philosophy) to enjoy a horizontal access to data.

The most important matter for P3G members to solve is to further delineate:

- the common scientific objectives.
- the definition of a P3G member. Indeed, P3G is not an elite club and foresees that other projects will want to join in. However, the conditions potential candidates would have to fulfil must to be stringent enough for the consortium not to become too diffuse and to maintain scientific and ethical integrity.
- The rules for membership.

Following a preliminary meeting between its proposed leader, Dr. Bartha Maria Knoppers, and Genome Canada/Quebec & CARTaGENE's delegates, representatives from the four public projects and Genome Quebec met in London in February 2003, in order to set the stage for the creation of P3G. A workshop was held in Montreal on July 2-4, 2003. The primary objectives of this meeting were to bring together scientists, sociologists, epidemiologists, public health researchers, ethicists, and lawyers in order to determine the feasibility of P3G, and possibly draft a MOU for the consortium.

The meeting, organized by Genome Canada, Genome Quebec and the Public Law Research Centre of the University of Montreal, was chaired by Professor Bartha Maria Knoppers. It opened with a plenary session presenting the P3G project was presented to participants i.e., its mission, the common areas of interest of the four projects involved as well as the original objectives.

The participants divided into five working groups on

- 1) Socio-demographic health questionnaires
- 2) Physical/physiological/biochemical Measurements
- 3) Storage, logistics and security
- 4) Governance and ethical clearance
- 5) Public engagement

One person from the research teams of the four proposed partners was appointed as 'workshop leader' for the five breakout groups. Their duties were to lead the discussion, appoint a rapporteur and do some preliminary sketching of areas of divergence/convergence across the four projects, possibilities for standardization/harmonization, emerging issues and next steps. Each of the workshop leaders and/or rapporteur presented the P3G meeting with a point form summary followed by discussion. The meeting concluded with the refinement of the P3G objectives.

All participants agreed that the meeting was extremely fruitful in that it enabled them all to acquire more knowledge about their partners' projects, to acknowledge their differences, commonalities, common needs, and to delineate the next steps to be taken and the need to meet on a regular basis. The P3G project was recognized as an extremely interesting project whose construction should be furthered, as it would permit to create a complete dataset of all contributing member biobanks, to be used by all members and the international community.

The following issues & conclusions summarized below deserve attention:

P3G Areas of Mutual Interest

- Harmonization (if not standardization) of all personal data collections common to different projects so that there are some common nodes of identity in the medical, demographic and social data collected from participants.
- Maximum standardization in the list of common biological phenotypes collected by each partner as well as agreement on methods and quality control for these texts.
- Compatible genotype databanks and common nomenclature of levels of identifiability of data and genomic variations.
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- Coordination of access to each others' databanks while protecting confidentiality subject to ethical review and governance.
- Development of security measures for the protection of genetic data and banks in accordance with the highest international standards.
- Coordinated development of bioinformatics for compatible data mining and for clarity on ownership/copyright issues.
- Sharing of approaches to public engagement, governance and intellectual property issues
- Exchange of experts and young researchers in many human and social scientific disciplines in addition to biology, public health and genetics.
- Support for the transfer of knowledge and technology to other developed or developing countries.
- International leadership in the ethics of genetic research involving populations
- Comparative evaluation and validation of research results and/or hypotheses on health and disease.

Workshop Conclusions

- the meeting strengthened the desire of the four teams to set up the P3G project, the creation of a virtual, integrated and dynamic database
- the meeting showed sufficient common interest and objectives for P3G to be effective
- the meeting outlined the need to improve quality control of all the data and across studies and borders; and,
- the need to establish a think tank to build a strong infrastructure with core elements to facilitate the transfer of data; know-how and research results

Strategies

- On-going communication should be encouraged,
- Working groups set up, teleconferences organized, exhaustive reports published (with the involvement of as many individuals as possible) for scientific review. In light of the desire expressed by the P3G members to create a common dataset, Genome Canada and Genome Quebec have agreed to finance the teleconferences.
- A web-site should be created and a pilot project established immediately,
- Determination of a threshold of membership rules,
- Further work needed in terms of the delineation of a common language, a taxonomy,
- Other population genomics projects and national governments should be made aware of the common goals shared by P3G's members.

P3G Revised the Objectives:

- 1. To connect the leading public population genomics projects**
- 2. To provide necessary coordination, harmonization and standardization so the combined results be used for the advancement of science around the world**
- 3. To develop common understanding of the socio-ethical and legal issues**
- 4. To foster a deeper understanding of the relative contribution of genetic and non-genetic determinants to health and disease, as well as,**
- 5. To transfer this knowledge to the international community so as to optimize benefits for public health.**

An additional objective was proposed, but it is too early to list it amongst the other objectives (i.e. to establish an organizational infrastructure to facilitate open access to a common dataset)

Next meetings

- A meeting will be held on August 26th, 2003, with North-American stakeholders to discuss potential collaborations between the P3G and North-American researchers, institutions and policy-makers.
- An EU sponsored workshop/meeting will probably be held in Stockholm in December 2003. Indeed, the EU wishes to establish a strong leadership in population genomics.