



Another project brought to you by **Genome**Canada

The Protist EST Program

Status	Past
Competition	I
Sector	Health
Genome Centre	Genome Atlantic
Project Leader	Michael W. Gray

Project Description

The Human Genome Project involves many life forms in addition to humans. It includes, at last count, about 300 other organisms that are important for a variety of reasons. By studying these non-human organisms, scientists can learn the answers to some of the most important questions about life. How did living beings begin? How did life evolve from simple one-celled organisms to the complexity of humans? What is the diversity of life forms? What are the most basic components of a life form?

We chose for careful genetic study about 70 simple micro-organisms whose particular features will help us answer some of these questions. One of the most informative ways to describe what an organism does is to make an inventory of the kinds of molecules specified by its genes. We have done this for all 70 organisms, altogether creating descriptions of over 200,000 gene products.

We have placed our information in a public database. This database is used in many genome studies by our colleagues all over the world, putting Canada on the map as an international leader in this area of research. Our research defines unique properties of many organisms, which is the basis for reducing the effects of the harmful ones. Some of this research will lead to the control of micro-organisms that cause infectious diseases of humans, as well as of economically important plants and animals.

Fast Facts

Highlighted outcome:	Creation of a database of over 200,000 gene products from more than 70 important micro-organisms
Number of research personnel employed by the project:	40
Number of peer reviewed publications published:	21 plus 2 book chapters and 61 invited presentations
Resources generated:	cDNA libraries, sequence annotations, databases, analytical software and picked colony plates for some 70 micro-organisms
Co-funders:	Atlantic Innovation Fund