



Permanent settlers arrived in Newfoundland in 1609, and population growth was slow

There was an influx of immigrants from 1780-1830 from southwest England and southern Ireland; many of these immigrants settled in isolated communities along the coast

This historical pattern of migration and isolation has resulted in Newfoundland being recognized as a unique founder population with a limited number of founders (approximately 20,000-30,000)

Features of the Newfoundland population that make it both unique and well suited for genetic research include:

- coastal settlements (outport)
- large family sizes
- descendants living in the same area
- religious segregation and geographic isolation
- cultural and environmental homogeneity
- well documented migration patterns to, and within, the province

Newfoundland is genetically isolated, which is evidenced by clusters of genetic diseases found in different areas of the province

This provides an exceptional resource for identifying disease related genes for rare monogenetic disorders such as:

- Hereditary non-polyposis colorectal cancer (HNPCC)
- multiple endocrine neoplasia type 1 (MEN 1)
- Bardet Biedl Syndrome (BBS)



Newfoundland is recognized as one of many founder populations in the world

Our population is also the focus of interest for identifying genes implicated in some complex diseases; even today genetic isolation and homogeneity persists in selected outports

Recent evidence has suggested that genetic research on complex diseases in our population can be translated to general Caucasian populations, which could generate more research interest from within and beyond the province