Abstract

Gliogene is an international consortium of familial brain tumor researchers in the United States, the United Kingdom, Sweden, Denmark, and Israel. Gliogene seeks to learn more about possible genes related to this disease and then identify a genetic link among family members of brain tumor patients. Identifying a genetic link may provide information about the disease, which may lead to improved treatment as well as preventive strategies.

Impact/Accomplishment

Since the study began in January 2007, Gliogene has screened more than 13,000 patients’ family histories and discovered 850 families with two or more relatives with reported gliomas. More than 3,000 glioma patients and their relatives are participating in the study.

To date, Gliogene has completed genetic analysis on 70 families with two or more cases of glioma verified through medical records or pathology reports. Out of these families, 46 are from the U.S., 17 are from Denmark and Sweden, and seven are from Israel.

In these 70 families, the average diagnosis age of the proband (the participant who initially enrolled in
Gliogene) is 46.9 for U.S. families, 52.1 for Danish and Swedish families, and 37.98 for Israeli families. The diagnosis age ranges from 1 year to 80 years.

Out of these families, 40 had two cases of glioma, 20 had three cases of glioma, and five had four cases of glioma reported. (Paper submitted for publication)

Glioma types vary in the families recruited. There have been no consistent patterns of glioma type among affected family members.

Gliogene analyzed 101 glioma patient samples from enrolled families and found no evidence of p16INK4A, p14ARF or p53 mutations. Individuals with p16 mutations may be at higher risk for pancreatic cancer and melanoma, and individuals with p53 mutations may be more susceptible to cancer development and Li-Fraumeni syndrome. (Robertson et al. Fam Cancer. 2010 Sep; 9(3): 413-21)

Links/Social Media Feed

Homepage http://www.gliogene.org/

Points of Contact

Melissa L. Bondy, Ph.D., M.S. (Principal Investigator)
phone: 713-798-2953
e-mail: mbondy@bcm.edu

Sponsors & Partners

Baylor College of Medicine
Brigham and Women’s Hospital
Case Western Reserve University
Duke University
Gertner Institute (Israel)
Institute of Cancer Epidemiology (Denmark)
Institute of Cancer Research (United Kingdom)
Mayo Clinic Rochester
Memorial Sloan-Kettering Cancer Center
NorthShore University HealthSystem
The University of Texas MD Anderson Cancer Center
Umea University Hospital (Sweden)
University of Alberta
University of California San Francisco
University of Southern California

Updated: 04/18/2016