Division of Cancer Control and Population Sciences

http://cancercontrol.cancer.gov

Cancer Genetics Network Epidemiology and Genetics Research Program

The Cancer Genetics Network (CGN) is a research resource for investigators conducting research on the:

- genetic basis of human cancer susceptibility,
- integration of this information into medical practice, and
- behavioral, ethical, and public health issues associated with human genetics.



Rich Data Resource

The CGN has enrolled more than:

- 20,000 probands who can be recontacted,
- 16,000 families, and
- 435,000 individual family members.

A core dataset is available on each participant and contains information on sociodemographic characteristics, history of cancer and/or premalignant conditions, cancer-relevant surgeries, four-generation cancer family pedigree, history of tobacco use, and expressed interest in genetic counseling.

Data also are available on some participants who enrolled in special studies, such as on

cancer-related outcomes, screening, counseling, and attitudes. Limited biospecimens include DNA samples from participants with early onset cancer, multiple cancers, and prostate cancer; and longitudinal blood samples on participants in ovarian and breast cancer studies.

Investigators have used CGN's rich data resources in a variety of ways. For example:

- Investigators used the CGN, in collaboration with the Gynecologic Oncology Group (GOG) and the National Cancer Institute's (NCI) intramural research program, to conduct a prospective, international, twocohort, nonrandomized study of women at high familial risk for ovarian cancer who chose salpingo-oophorectomy or screening at enrollment. The study tested a novel ovarian cancer screening strategy, the Risk of Ovarian Cancer Algorithm (ROCA).
- The CGN is one of the largest repositories of women tested for *BRCA1* and *BRCA2* gene mutations. Investigators used the CGN to quantify the accuracy of seven publicly available models for predicting mutation carrier status.

Database Query Tool

Prospective investigators can freely access the online *Core Query Tool* through the CGN's Data Coordinating Center at Massachusetts General Hospital to learn more about the aggregate characteristics of participants and discover how the CGN may be used for research purposes. Summary data within the core database can be queried based on criteria such as sex, age, race (including Hispanic or Ashkenazi descent), geographic region, ascertainment mode, proband cancers, genetic testing, surgical history, and family history variables.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

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Research Support Services

The CGN is a national network of 14 academic research centers whose contributions include enrollment of probands and families. It can provide a wide variety of research services and specialized expertise to assist investigators with approved studies.

From early in the research planning process, the CGN team can advise investigators on study design and the availability of participants. The team also can provide expertise in biostatistics, statistical genetics, epidemiology, genetic epidemiology, and behavioral research. The Data Coordinating Center can assist with study preparation, database management, logistics, and communications across participating sites to help ensure the success and smooth operation of research projects.

For approved studies, the following CGN services are available for a fee:

• Guidance on developing concept proposals to use CGN resources

- Assistance in the conduct of CGN-approved studies
 - Advice on designing studies to maximize use of CGN resources
 - Assistance in developing new enrollment and data collection protocols and forms
 - Support in developing study protocols and required ancillary documents
 - Assistance in writing Institutional Review Board (IRB) protocols
- Collection and storage of biospecimens (fresh tissue, RNA, and DNA)
- Informatics services
 - Software development, including computerized followup for study participants and constructing databases with study questionnaires and surveys
 - Data management with a specially adapted version of *TrialDB*. (*TrialDB* is a customizable Web-based clinical trials database system that can be used for storing and querying CGN epidemiologic data.)



More Information

The CGN is funded by the Epidemiology and Genetics Research Program (EGRP) in NCI's Division of Cancer Control and Population Sciences.

To learn more about the CGN, visit EGRP's Web site at *http://epi.grants.cancer.gov* and the CGN's Data Coordinating Center Web site: *http://hedwig.mgh.harvard.edu/cgn*. The chief contacts are:

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- CGN Data Coordinating Center: Dianne M. Finkelstein, Ph.D., Director; tel.: (617) 724-9878; e-mail: dfinkelstein@partners.org

http://epi.grants.cancer.gov/CGN