Ready to start planning your care? Call us at 800-525-2225 to make an appointment.
×

Study Objective

The GEM study is a population-based case-control study of multiple melanoma conducted in various geographic regions of North America, Europe and Australia. Over 3500 participants contributed DNA and lifestyle and personal information to examine genetic factors associated with melanoma, and their relationships with personal sun exposure history.

Who Is Conducting the Study?

The study was developed and coordinated by investigators at the Center. It is currently led by Dr. Marianne Berwick at the University of New Mexico.

Results

The study has provided unique insights into the influence of the genes CDKN2A and MC1R in the risk of melanoma, the role of various DNA polymorphisms, and their relationships with sun exposure. Some key publications are listed below:-

Begg et al. Familial aggregation of melanoma risks in a large population-based sample of melanoma cases. Cancer Causes Control 2004;15:957-965.

Begg et al. Lifetime risk of melanoma in CDKN2A mutation carriers in a population-based sample (with editorial). J Natl Cancer Inst 2005;97:1507-15.

Millikan et al. Polymorphisms in nucleotide excision repair genes and risk of multiple primary melanoma: the genes environment and melanoma study. Carcinogenesis 2006;27:3610-618.

Begg et al. A design for cancer case-control studies using only incident cases: experience with the GEM study of melanoma. Int. J. Epidemiol 2006;35:756-764

Berwick et al. The prevalence of CDKN24 germline mutations and relative risk for cutaneous malignant melanoma: an international population-based study. Cancer Epidemiol Biomarkers Prev. 2006;15:1520-1525.

Kanetsky et al. Population-Based Study of Natural Variation in the Melanocortin-1 Receptor Gene and Melanoma. Cancer Res 2006; 66:9330-9337.

Orlow et al. Germline Mutations in Individuals with Cutaneous Malignant Melanoma. Journal of Investigative Dermatology 2007; 127:1234-1243.

Kricker et al. Ambient UV, personal sun exposure and risk of multiple primary melanomas. Cancer Causes and Control 2007; 18:295-304.

Mujumdar et al. Sun protection and skin self-examination in melanoma survivors. Psycho Oncology 2009;18:1106-1115.

Current Projects

The disease histories of the GEM participants are being examined by the investigators to see whether sun exposure history and genetic factors are related to the chances of surviving the disease. Results from this aspect of the study will be available in the forthcoming year.

Project Members

Colin Begg

Irene Orlow

PREVIOUS

Estrogen, Diet, Genetics, and Endometrial cancer (EDGE)

NEXT

Genetic Epidemiology of Glioma International Consortium (GLIOGENE)

Communication preferences

Cookie preferences

Legal disclaimer

Accessibility statement

Privacy policy

Price transparency

Public notices

© 2024 Memorial Sloan Kettering Cancer Center