

Inaugural Meeting of the Male Breast Cancer Pooling Project

May 26, 2010 – Rockville, MD

Report to the NIH Office of Rare Diseases (Partial Sponsor)

On May 26th, the inaugural meeting of investigators involved with the Male Breast Cancer Pooling Project was held in Rockville, MD. Representatives from 21 studies (12 case-control and 9 cohort) attended the meeting. Given the rarity of male breast cancer (which accounts for <1% of all breast cancers), it has been very difficult to derive information on etiologic factors from single studies. The pooling of information across multiple studies will enable a much more powerful approach to assessing these factors. Most investigators had previously submitted datasets to NCI for harmonization, enabling preliminary results of pooled analyses to be presented and discussed at the workshop. The accumulation of data from these various studies should eventually result in more than 2,500 cases of this rare disease, allowing many potential risk factors to be assessed in detail. Many of the investigations also collected biologic samples (blood, tissue), which will enable evaluation of the biologic underpinnings of many of the identified risk factors. Of particular interest will be genetic markers (especially *BRCA2* and genes involved in hormone metabolism of tumor suppression) and hormonal predictors of risk (an imbalance of estrogen to androgen levels has been suggested as involved in the etiology of the disease). Tissue samples may also enable the disease to be divided into etiologically distinct subsets based on tumor markers.

As a result of the workshop, a number of different working groups will be assembled to focus on specific areas of interest. The initial manuscript from the effort is anticipated to be one that focuses on hormonally-related risk factors, including an assessment of the role of obesity, certain diseases that result in hormonal alterations, and use of exogenous hormones. Other working groups will focus on familial factors, energy balance (including diet and physical activity), occupational factors, genetic markers, endogenous hormones, and tissue markers. Data from ongoing studies will be updated during the course of the collaboration and additional cohorts will be sought that might contribute valuable data, especially those from countries not currently represented in the collaboration. We currently have representation from Canada and many European countries, but not yet from African or Asian countries or Australia.

A password-protected web-based portal has been established to facilitate communication among the investigators involved in this project and we will attempt to have an in-person meeting of the investigators approximately yearly. We hope to have the first publication from the pooling project prepared within a year's time.