Second Meeting of the International Childhood Cancer Cohort Consortium

The second meeting of the International Childhood Cancer Cohort Consortium was held at the World Health Organization facility in Copenhagen during August 28-29, 2007. **Martha Linet, M.D., MPH (Chief, REB)** and other members of the Consortium's Steering Committee organized the two-day session, which was supported by DCEG and DCCPS at NCI, the NIH Office of Rare Diseases, the National Children's Study, the U.S. Environmental Protection Agency, the Murdoch Children's Research Institute (Melbourne, Australia), and the Statens Serum Institute (Copenhagen, Denmark). Representatives of the following cohorts attended the meeting: the Avon Longitudinal Study of Parents and Children (Jean Golding, Ph.D., PI, University of Bristol, UK), Bradford Babies: Growing Up in Bradford (Patricia McKinney, Ph.D., PI, University of Leeds, UK), the China-U.S. Collaborative Project on Birth Defects and Disabilities Prevention (Li Zhu, M.D. PI, Peking University Health Sciences Center, Beijing, China), the China Family and Children Cohort Study (Li Zhu, M.D. PI, Peking University Health Sciences Center, Beijing, China), the Danish National Birth Cohort (Jorn Olson, M.D., PI, Copenhagen, Denmark), Étude longitudinal française despuis l'enfance (Jacqueline Clavel, M.D., PI, Inserm, Paris, France), the U.S. National Children's Study (Peter Scheidt, M.D., NICHD, Bethesda, MD), the Norwegian Mother and Child Cohort Study (Andrei Grjibovski, M.D., PI, Oslo, Norway), and the Tasmanian infant Health Survey (Terry Dwyer, M.D., PI, Melbourne, Australia). Thirty-seven international investigators attended the meeting including **Sharon Savage, M.D. (CGB)** and **Carol Kasten, M.D. (DCCPS)**.

Following introductions and updates on progress by cohort representatives, Martha Linet provided an overview on international variation in incidence, known and postulated risk factors, and potential contributions of the cohort consortium to clarifying etiology of childhood cancer. Dr. Linet indicated that the consortium might be an excellent resource for addressing risk factor hypotheses difficult to study in case-control studies, identifying precursor conditions, and assessing determinants of transformation of precursors to frank pediatric malignancies as well as providing important baseline information about exogenous, endogenous, and genetic factors in normal growth and development. A series of key hypotheses of particular interest for potential collaborative longitudinal investigations were presented including the role of chromosomal translocations and hyperdiploidy at birth, paternal age, pesticides, early infections, birth weight for gestational age, and birth defects in the etiology of childhood cancer.

On the second day, breakout sessions were held on genetic and molecular studies of potential etiologic importance (including copy number variation, global and gene-specific methylation and links to nutritional factors, and epimutation), important technological aspects related to sample collection and laboratory methods (including cord blood banking and translocation screening, both discussed in relation to scaling up for a large cohort), and issues related to development of a core study protocol and data dictionary (with short presentations and discussion related to developing a policies and procedures manual, membership guidelines, and authorship issues).

Finally, several working groups were established. One working group will conduct combined analysis on the role of folate consumption and folic acid pathways in relation to childhood leukemia. The Steering Committee was charged with prioritizing other scientific hypotheses (the putative role of paternal age, early infections, measured parental occupational and residential

pesticide exposures, and birth weight for gestational age). A working group of molecular epidemiologists and laboratory scientists will further develop the hypothesis and methods for conducting a pilot investigation to compare chromosomal translocations and hyperdiploidy at birth among different populations. This group will also evaluate and prioritize other ideas for genetic and molecular studies and will develop and test approaches for biological sample collection, shipping, and storage. A member of the group will also serve on the Steering Committee. Another working group will focus on development of approaches for assessing and validating pediatric cancer outcomes within the various cohorts. Other working groups will finalize the draft policies and procedures manual and will address different Institutional Review Board requirements as well ethical and privacy concerns with respect to pooling data from the cohorts.