

International Childhood Cancer Cohort Consortium

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Abstract

The *International Childhood Cancer Cohort Consortium (ICCCC)* workshop was held on September 28–29, 2005 in Rockville, MD, USA. The purpose of this workshop was to discuss the development of an international alliance of longitudinal studies of children to enable investigations of the role of various environmental exposures in the etiology of childhood cancer. This meeting was a result of the workshop *Cancer and the National Children's Study: Opportunities and Challenges* on May 20, 2004 in Bethesda, MD that determined that since childhood cancers are extremely rare, even large individual cohort studies such as the National Children's Study have limited power to evaluate the possible relationship of common exposures with common types of childhood cancer. A consortium formed to enable pooling of data would provide an opportunity to examine postulated risk factor associations.

Establishment of an ICCCC would also complement current efforts underway by the *International Interest Group* of the National Children's Study and the World Health Organization (WHO) to encourage other countries to implement longitudinal studies for environmental exposures to children. The proposed effort to enable investigations of hypotheses for childhood cancer etiology would enhance and parallel development of harmonized hypotheses and protocols for longitudinal studies of children internationally.

Participating Cohorts

This two-day workshop brought together international researchers involved in large-scale cohort studies of the effects of the environment on children's health, as well as experts in epidemiology, pediatric oncology, and other interested parties.

- Avon Longitudinal Study of Parents and Children (ALSPAC), UK
- Bradford Babies: Growing Up in Bradford, UK
- Canadian Childhood Cancer Surveillance and Control Program (CCCSCP)
- China Family and Children Cohort Study (CFCCS)
- China-US Collaborative Project on Birth Defects and Disabilities Prevention (CPBDDP)
- Danish National Birth Cohort (DNBC)
- French Study on Environment and Children's Health (EFESE)
- Infancy and the Environment (INMA), Spain
- Jerusalem Perinatal Study
- Mother and Child Cohort Study (MOBA), Norway
- National Children's Study, USA
- Tasmanian Infant Health Survey, Australia



Meeting Summary

Information was presented on the following:

- Incidence rates of childhood cancers
- Hypotheses of the etiology of childhood cancer, including:
 - pesticides
 - environmental tobacco smoke
 - nutrition and growth
 - infection
 - genetics
- Statistical power calculations
- Methodological considerations, including data collection strategies, nested case-control studies, windows for exposure assessment, and mechanistic studies
- Initiation and success stories other cancer consortia, along with models for leadership, logistics, communication, and funding through NCI's *Epidemiology and Genetics Research Program's Consortia Working Group*.



Finally, information was presented on the efforts to harmonize hypotheses by the WHO's *Working Group on Long Term Studies on Environmental Threats to the Health of Children in Developing and Industrialized Countries*.

Next Steps

A Steering Committee for the consortium was established, with membership including representatives from the National Children's Study, the Tasmanian Infant Health Survey, Danish National Birth Cohort, and China Family and Children Cohort Study, as well as National Institute for Child Health and Human Development, the National Cancer Institute, and the U.S. Environmental Protection Agency. The Steering Committee is tasked with:

- Development of policies, procedures, and ethical requirements
- Hypothesis selection and protocol development
- Portal and database development
- Outreach to other ongoing or proposed cohorts

The consortium will publish the meeting summary in a peer-reviewed journal.

Next meeting of the consortium will be held in the next year, possibly associated with the workshop on *Recent Evolution in the Design of Very Large Cohort Studies: Prospects and Limits* in Les Vaux de Cernay, France, May 17–19, 2006, or with the *International Conference on Child Cohort Studies* in Oxford, UK, September 12–14, 2006.



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IMPLEMENTING THE NATIONAL CHILDREN'S STUDY:
SCIENTIFIC PROGRESS, CHALLENGES, AND OPPORTUNITIES

STUDY ASSEMBLY MEETING

November 29–30, 2005 • Washington, DC