



May 8, 2007

The Columbia Center for Children's Environmental Health (CCCEH) is responding to the April 6, 2007 Review Panel Report on the Center for Children's Environmental Health and Disease Prevention Research Program, and outlining four areas of concern.

### **Broadening Children's Centers' Scope**

We agree with this goal. In fact, many of the centers are already broadening their scope to include more subtle outcomes (e.g. poor reading skills), examine life stages, and analyze Center data within the context of national databases, as these are all natural progressions for Centers that have been operating for close to a decade.

- Children in a number of the Centers' prospective cohorts, including our own, are aging into pre-adolescence; the age span from birth through ages 8-11 allows for time trend analyses across life stages.
- The advanced stage of the research by the Centers positions them to examine cohort data in wider contexts (e.g. in relation to citywide databanks, national disease registries) and to test the generalizability of findings. It should be noted that some Centers, such as CCCEH, have been conducting comparative studies internationally (e.g. China, Poland).
- A rich pool of research findings by Centers creates unique opportunities to formally pool data and conduct cross-regional analyses.
- Broadening disease outcomes to include diseases such as childhood cancer is a challenge because prospective birth cohorts do not have the statistical power to detect such rare conditions; however, intermediate biomarkers and sub-clinical endpoints are already being used in some Centers, including our own, to study risk of cancer.

### **Basic Science Focus**

The review panel's recommendation to shift Children's Center research from population-based epidemiologic studies to focus more on basic science could jeopardize what the panel acknowledges to be "perhaps the greatest strength of the current Children's Center program."

- Experimental research results already form the basis of hypothesis-driven population-based studies of vulnerable groups; Centers each conduct at least one original basic science project.
- The transdisciplinary approach is a hallmark of Centers and has created teams of experts approaching complex issues in children's environmental health using diverse scientific methods and perspectives.
- It is critical to maintain a balance of basic science and population-based epidemiology, leading to intervention research and policy recommendations. This approach exemplifies translational research.
- Basic science can be further incorporated in different ways, e.g. seminar series for basic scientists and epidemiologists to discuss links between the two research areas and develop new research ideas for both types of studies.

### **New Funding Mechanism**

The proposed new mandate of three R01s followed by two more in order to qualify as a Center is problematic.

- This new mechanism potentially threatens the stability of Centers, erodes the benefits derived from a collective of interrelated research occurring simultaneously, impedes forward progress in terms of maximizing collaborative use of rich collections of biological data, and potentially disrupts the continuity of prospective longitudinal cohort studies. We suggest that NIEHS strengthen mechanisms within and across Centers to optimize their strengths and achievements (e.g. unique collections of biological samples, tracking molecular changes from early life through later stages); to support greater collaboration across centers (e.g. merging common data to conduct larger analyses across various populations and regions thereby increasing generalizability to advance the study of gene-environment interactions); and to sustain invaluable biorepositories.

### **CBPR and Translation Initiatives**

The Panel credits the Children's Centers for elevating the "visibility of children's environmental health research," and, in some cases, leading "successful intervention and prevention programs."

- We agree and believe that translation of scientific results through community outreach, interventions to reduce exposures, and policy initiatives should be an integral part of the Centers--not optional to be provided through other funding.