

cases. Decisions are pending on 26 of the subjects contacted and 11 subjects have declined further participation. Efforts continue to contact and recruit additional cases with outstanding documentation. Despite the interruption in laboratory operations, the recruitment of new lymphoid cases from Tumor Hospital totaled 69 from December 2006 through June 2007.

Publications

Our studies to identify genetic polymorphisms associated with benzene-induced bone marrow injury have continued. These studies have resulted in the discovery that a specific genetic variation in an important inflammatory cytokine, TNF- α (TNF- α 238A), influences susceptibility to the development of benzene induced dysplasia (BID) and provides independent molecular confirmation of our previous observations that inflammation plays an important role in the development of long term bone marrow injury associated with benzene. These findings further suggest that cell-specific alterations in TNF- α expression may promote clonal selection in the evolution of MDS and AML (Lv et al (2007) "The TNF- α 238A polymorphism is associated with susceptibility to persistent bone marrow dysplasia following chronic exposure to benzene," *Leukemia Res.* (Online www.sciencedirect.com.)

II. Exposure Assessment

Sector Analyses and Literature Review

Several conference calls and an in-person meeting of the IH steering group with Drs. Cherrie and Herrick have been held since the last progress report. The last meeting was on June 21, and primarily covered progress in information assembly for the Job/Industry Sector-Time-Exposure Matrix for the CC/DP studies. Commonly seen industry and task combinations have been organized according to similar work/materials, summarized, and discussed with Drs. Herrick and Cherry. This is an evolution of the jobs/industry categories identified earlier that have been guiding assembly of information for the CC/DP study matrix.

A draft manuscript on the paint making and paint using segments was completed and is currently in SRP review. Additional reports on printing and glues/adhesives are nearly complete in Chinese. The review of solvent and glue composition has yielded limited useful information to date, and the precise compositional information for benzene content of these materials remains elusive. Efforts to assemble compositional information continue, but alternative approaches based on information outside of China may be required. The summary of the Western literature described in a prior progress report will be a central part of this alternative.

Sampling and Analytical Methods Comparison

A project is underway to evaluate the influence that changes in sampling and analytical methods have had on historical benzene exposure data over time. The goals of the comparison study include determining real world limits of quantification and defining any biases due to sampling or analytical practices. The disruptions in project funding have limited progress made on this rather important component of the benzene data analysis. Information from the