

## **Cohort study on the neurobehavioral effects of perinatal exposures to halogenated organic environmental pollutants and heavy metals in Japanese children: an interim report on the Neonatal Behavioral Assessment Scale**

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From several epidemiological studies, it is reported that there are some associations between perinatal exposure to PCBs, dioxins and heavy metals and neurobehavioral defects such as postnatal growth delay and poorer cognitive function. In this study, we designed a prospective longitudinal cohort study to examine the effects of perinatal exposures to PCBs, dioxins and heavy metals on neurobehavioral development in Japanese children. Since we did not yet completed our cohort study, this is an interim report to show some preliminary data regarding the some results of the Neonatal Behavioral Assessment Scales (NBAS).

We are collecting the samples including cord blood, placenta and cord, but we did not yet performed the biochemical assays. Therefore although we cannot examine effects of exposures chemical substances on neurobehavioral development, we examined the associations between maternal smoking during pregnancy and NBAS to examine the sensitivity of our NBAS test. Maternal smoking is well known to influence on the physically development and cognitive function of newborn.

This study is not designed in order to examine maternal smoking and effects on newborn. But we expect this paper can present some information regarding the effects of maternal smoking on the newborns neurobehavioral development.