Supplementary Online Content

Chang L, Oishi K, Skranes J, et al. Sex-specific alterations of white matter developmental trajectories in infants with prenatal exposure to methamphetamine and tobacco. *JAMA Psychiatry*. Published online November 9, 2016. doi:10.1001/jamapsychiatry.2016.2794

eAppendix. Participant Criteria

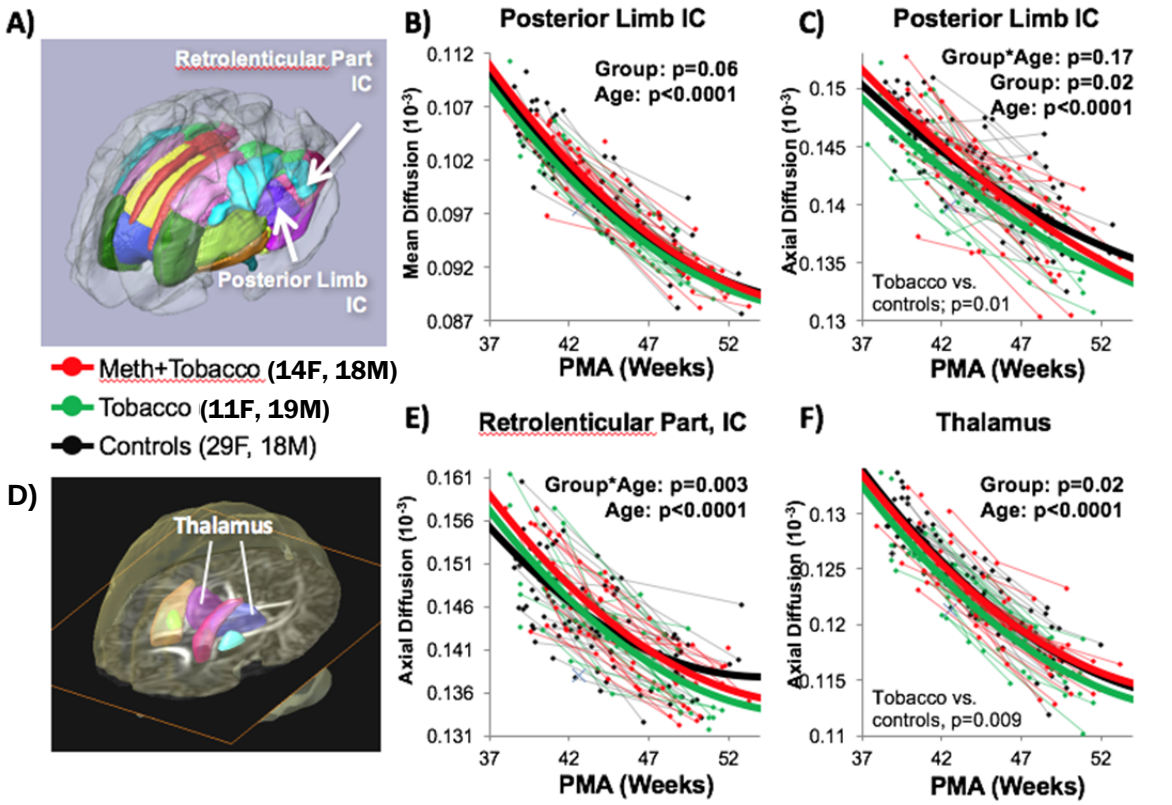
eFigure. Developmental Trajectories of Diffusitivities in Posterior Limb and Retrolenticular Part of Internal Capsule (IC) and in the Thalamus Across Subject Groups

This supplementary material has been provided by the authors to give readers additional information about their work.

eAppendix. Participant Criteria

Inclusion Criteria: 1) male or female infant of any ethnicity, 2) parental willingness and ability to provide consent for the infant, 3) prenatally stimulant exposed (Tobacco or Meth+Tobacco-exposed groups), or unexposed to substances (Unexposed-Controls). Exclusion Criteria: 1) newborn illness requiring prolonged (>1 week) intensive care (except for preterm <37 weeks infants), 2) intracranial hemorrhage, 3) neonatal encephalopathy, 4) known Toxoplasmosis, Other (syphilis, varicella-zoster, parvovirus B19), Rubella, Cytomegalovirus, and Herpes infection, 5) congenital heart disease or other congenital anomaly, 6) any chromosomal anomaly, 7) any contraindication for MR studies. Exclusion criteria for the mothers: 1) maternal age<18 years, 2) inability to fully understand English, 3) history of moderate to severe substance use disorders during pregnancy, other than Meth and Tobacco, 4) excess alcohol use (>3 standard drinks/ month) during the pregnancy. 5) Any confounding medical or neuropsychiatric disorders.

eFigure. Developmental Trajectories of Diffusitivities in Posterior Limb and Retrolenticular Part of Internal Capsule (IC) and in the Thalamus Across Subject Groups



A, Brain regions from the automated atlas showing the regions of interest for the posterior limb of IC and the retrolenticular part of IC. B and C, Across the age span, the Tobacco-exposed infants showed lower mean diffusivity, mostly due to the lower axial diffusivity compared to the other groups. D, Subcortical structures are shown on a 3-D rendered brain, including the location of the thalamus. E, The two stimulant-exposed groups showed altered age-dependent decreases in axial diffusivity compared to unexposed controls in the retrolenticular part of IC. F, Across the age span, the Tobacco-exposed infants also showed lower axial diffusivity compared to the other two groups in the thalamus.