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**Draft NTP Monograph  
on  
Developmental Effects and Pregnancy  
Outcomes Associated with Cancer  
Chemotherapy Use during Pregnancy**

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**NTP Peer Review Meeting  
October 1-2, 2012**





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# Long-term Evaluations of Growth and Development

Cancer Chemotherapy Use during  
Pregnancy



# Long-term Evaluations of Growth and Development

- Of the few studies conducted, normal growth and development have been observed in offspring gestationally-exposed to cancer chemotherapy
  - Findings from two research groups:
    - Normal physical, hematological, neurological, psychological and cardiac studies were normal; no evidence of cancer; 12 children have been born to these offspring (n=50 ages ranging from 8 to 32 years; Aviles 2012)
    - Normal behavior, health, hearing and growth; normal cardiac functions and dimensions (n=70, tested at aged 18 months to 18 years; Amant 2012)
    - Found small but significant differences in the shortening and ejection fraction; children scoring low on IQ were preterm
- There is a need for larger, longer-term studies with more comprehensive health assessments



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# Charge Questions for Long-term Evaluations of Growth and Development

1. Please comment on whether the scientific information in the text is technically correct, clearly stated, and objectively presented. Please identify any needed improvements.
2. Please comment on whether this review of the literature on long-term evaluations is complete. If not, please identify additional references and the outcomes evaluated that should be added.