SmartTots is a multi-year collaborative effort designed to increase the safety of anesthetic drugs for the millions of infants and children who undergo anesthesia each year. Research funded through SmartTots investigates multiple aspects of existing anesthetics and their administration, including dosage and exposure. Findings from these studies will establish the development of new practice guidelines and anesthetic drugs. Data, outcomes, and best practices generated by SmartTots will be placed in the public domain.

Mission

SmartTots acknowledges that insufficient human data exist to determine whether anesthetics induce neurotoxicity in the developing brain. SmartTots is dedicating its initial research investigations to elucidating whether a signal suggesting anesthetics induce neurodegeneration in the developing brain does, in fact, exist. Research will focus on volatile anesthetics administered during developmental periods of rapid brain growth in high-risk circumstances, such as prolonged exposure. Thus far, implicated anesthetic agents include N-methyl-D-aspartate (NMDA) receptor antagonists, such as ketamine, and GABA agonists, such as sevoflurane.
As determined by the Scientific Advisory Board, SmartTots will fund research focused primarily on three fundamental areas:

**Structure & Governance**

The SmartTots Steering Committee provides overall coordination, management, direction, and oversight of the initiative. It is composed of representatives from the International Anesthesia Research Society (IARS) and the U.S. Food and Drug Administration (FDA) and includes two chairs, one representative from FDA and one representative from IARS. The Steering Committee oversees appointments to the Executive Board, Scientific Advisory Board (SAB), and Affiliate Advisory Council.

The SAB is an interdisciplinary group of scientific and medical professionals responsible for determining the scientific priorities and research direction of SmartTots. This group solicits, reviews, and selects pediatric anesthesia research projects to receive grant funding.

**Financing**

Smart Tots is supported by IARS donors.

**Impact/Accomplishment**

In February 2013, SmartTots released its second Request for Applications. In July 2013, two recipients were selected to receive $200,000 each (paid over two years): (a) Lena Sun, Columbia University Medical Center, Pediatric Anesthesia NeuroDevelopment Assessment (PANDA) Study and (b) Jeffrey Sall, University of California San Francisco, Recognition Memory Following Early Childhood Anesthesia.

**Links/Social Media Feed**
Points of Contact

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Sponsors & Partners

International Anesthesia Research Society
Saatchi & Saactchi Wellness
ShareCare
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