### **Clinical Cancer Research**

- The value of biomedical research is judged by its impact on our patients
- Clinical research measures the impact of new discoveries in patients
- Improvement in survival of children with cancer from 30% to 80% is the result of a commitment to clinical research

#### Clinical Research at CHOP

- Children's Oncology Group
  - Group Chair
  - Leading center for enrollments on treatment trials
  - Scientific leadership
- Disease and discipline consortia
- Institutional clinical research priorities
  - Immunotherapy and cellular therapies
  - Survivorship
  - Genomics
  - Developmental therapeutics and clinical pharmacology

# **Fertility Preservation**

- Correlating function with prior therapy (Survivorship clinic and CCSS)
- Counseling patients and families
- Cryopreservation of ovarian and testicular tissue

# Dosing Anticancer Drugs in Children

- Uniform dose based on body size results in highly variable drug exposure
- Drug exposure related to dose and rate of drug elimination
- Individualize dose based on markers of kidney and liver function
- Determine the optimal dose based on therapeutic drug effects instead of side effects (toxicity)

### **Clinical Research Mission**

- Translation
- Collaboration
- Innovation
- Excellence
- Education