Abstract

Many illnesses occur in pregnant women and children that can significantly impact health. These conditions require drug therapy but the clinical pharmacology and pharmacogenomics of most medications used during pregnancy and childhood are poorly characterized. This compromises the effective and individualized treatment of multiple conditions specific to these populations such as nausea and vomiting of pregnancy, preterm labor, diabetes, and depression in pregnant women and childhood cancers in pediatric patients. Furthermore, drug disposition in these populations is known to be different from that observed in non-pregnant adults. We have developed PREGMED a unique center whose central mission is to improve the pharmacotherapy for women and children using a personalized medicine approach that builds on the strengths of Indiana University in the areas of pharmacogenomics and clinical obstetrics and pediatrics. The center’s multidisciplinary activities focus on developing new paradigms for the treatment of the multiple important conditions that affect pregnant women and children.