Pinney, Sara E.

Dr. Pinney is an Assistant Professor of Pediatrics at the University of Pennsylvania School of Medicine and an attending physician in the Division of Endocrinology and Diabetes. She attended the University of Pennsylvania (Penn) for her undergraduate studies majoring in History of Art. She completed medical school at the University of Cincinnati College of Medicine and residency in General Pediatrics at Children's Memorial Hospital/Northwestern University in Chicago, IL. Dr. Pinney completed her clinical fellowship in Pediatric Endocrinology at the Children's Hospital of Philadelphia (CHOP), and a post-doctoral fellowship in the laboratory of Dr. Rebecca Simmons at Penn where she trained in field of developmental programming of adult disease.

The principal focus of Dr. Pinney's research is to determine the molecular mechanisms that link an adverse intrauterine environment to the development of diabetes and obesity later in life. Her lab is investigating how intrauterine growth restriction, gestational diabetes and in utero exposure to environmental toxicants contribute to the development of diabetes and obesity in the offspring. Her lab has profiled changes in the transcriptome, epigenome and metabolome of human amniotic fluid, amniocytes and placenta that are exposed to gestational diabetes and the endocrine disrupting chemical BPA. The results highlight consistent themes and demonstrate that in utero exposures to various environmental insults have sex-specific metabolic effects on the developing fetus.

A second focus of Dr. Pinney's research program is identifying and treating children with atypical forms of diabetes, including monogenic forms of diabetes (MODY) with the aim to develop targeted novel approaches to treatment for this population. Dr. Pinney and her colleagues in the Diabetes Center for Children at CHOP have identified and treated children and adolescents with 12 different forms of monogenic diabetes. Her lab is actively working to better understand the clinical features and molecular mechanisms responsible for these rare forms of diabetes in children in order to develop novel treatment strategies to benefit all patients with diabetes.