Dr. Galen Wright is broadly interested in identifying genetic factors that contribute towards risk for neurological disorders, as well as fundamental biological processes in the brain. To accomplish this, his research group performs bioinformatic analyses on large-scale genomic data. The results of these computational analyses are then used to inform downstream functional validation experiments, including gene editing work (e.g., CRISPR/Cas9). Insights obtained from this research lead to a better understanding of human biology, the identification of novel therapeutic targets, as well as improved risk prediction models.

Bioinformatics, Genetics, Genomics, Neuroscience, Precision Medicine
Dr. Vern Dolinsky’s research is focused on investigating the mechanisms involved in the development of gestational diabetes and how gestational diabetes contributes to the developmental origins of obesity, diabetes and related cardiovascular disorders in youth. His laboratory utilizes a combination of experimental animals, in vivo imaging as well as cellular, molecular, biochemical, genomic and epigenomic approaches to expand the knowledge about the biological mechanisms that lead to obesity, diabetes and heart disease. This information aims to guide the development of novel therapies for obesity, diabetes and heart disease.