Monday 9/9	
8:00-8:30	Registration
8:30-9:30	Welcome and pre-course assessment
9:30-10:30	Introduction to Genomics and Human Variation
10:30-11:15	Next Generation Sequencing Fundamentals and Laboratory Approach
11:15-11:30	Break
11:30-12:00	Alignment and the Reference Genome
12:00-1:00	Lunch
1:00- 1:45	Variant calling and Annotation
1:45-2:15	Changes to the Common Rule: Implications for Genomic Studies
2:15-2:45	Case Study Discussion
2:45-3:00	Break- transition to main auditorium
3:00-4:30	Bioethics- Considerations in Return of Research Results (Dr. Benjamin Wilfond)
5:00-7:00	Dinner and Panel on Patient and Family Perspectives

Tuesday 9/10	
8:30-9:30	Bioethics: Bridging the Tension between Research and Clinical Testing
9:30-10:00	Case Study Discussion
10:00-10:45	Introduction to Variant Interpretation
10:45-12:15	Workshop 1: Variant Analysis
12:15-1:00	Lunch
1:00-2:00	Introduction to RNAseq- Studies and Analysis
2:00-3:00	Epigenetics: Beyond Mendel
3:00-5:00	Workshop 2: PGET Analysis and Genetic Counseling

Wednesday 9/11	
8:30-9:15	The Mitochondrial Genome
9:15-9:45	Trio Analysis
9:45-12:15	Workshop 3: Trio Analysis and complex cases
12:15-1:30	Lunch- Young Investigator Updates
1:30- 2:30	Architecture of Variation in Gene Regulation and Human Disease
2:30-3:15	Approaches to Functional Validation
3:15-3:30	Break
3:30-4:30	Pharmacogenetics- Challenges and Applications

Thursday 9/12	
8:30-9:45	Long Read Sequencing Approaches (Dr. Winston Timp)
9:45-12:45	UCSC Genome Browser Training
12:45-1:45	Lunch with guest speaker: Car-T Gene Therapy for Pediatric Leukemia
1:45-3:15	Precision Medicine in Oncology -Interpretation and Bioinformatic challenges
3:15-3:30	TED talk- Putting Genomics to Work
3:30-4:00	Course wrap-up