

DNA METHYLATION SERVICE

Identify global patterns of DNA methylation using SwitchGear's unique methylation assay

- ▶ Use SwitchGear's methylation service to measure global patterns of methylation in the human or mouse genomes from any cell or tissue sample
- ▶ Integrate DNA methylation information with other genomic data generated by SwitchGear's suite of tools to provide a more complete view of a regulatory network
- ▶ Genome-wide DNA methylation patterns serve as valuable epigenetic signatures to profile different tumor types or tissue samples
- ▶ Use in conjunction with the SwitchGear Functional Promoter Macroarray to measure the functional effects of DNA methylation on a particular promoter



Details of the SwitchGear methylation assay platform:

- ▶ Methylation assay conducted on a custom-designed ~400,000 feature oligo array
- ▶ Measures methylation status at ~50,000 unique regions ranging in size from 300 to 2,000 bp in the human genome
- ▶ Covers 92% of the ~28,000 predicted "CpG islands" in the human genome (Gardiner and Frommer 1987)
- ▶ Covers ~20,000 additional CpG-rich regions that are not annotated as "CpG islands"
- ▶ Includes 1,000 negative control regions that lack CpGs

Requirements for the methylation assay:

- ▶ > 200 ng high-molecular weight genomic DNA (average size > 4 kb)

SwitchGear's methylation technology is currently available as a service. By providing genomic DNA samples, you can quickly measure the methylation patterns across hundreds of samples without investing in additional infrastructure and personnel.