## Landscape of DNA and RNA Methylation



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## Snecific Aims: DNA to RNA Anoteome

\#1 - Genome-wide epigenetic profiles of DNA methylation changes \#2 - A comprehensive catalog of coding and noncoding, small and large RNA \#3 - Transcriptome-wide maps of RNA methylation sites

## Implications of the Research for Space \& Earth



Space: (1) Establish the genetic networks and expression patterns activated by space travel, (2) trace clonality of epigenetic changes, (3) examine the methylation of RNA


Earth: Aid research on aging, cancer, RNA biology, and circadian rhythm, all of which show differences at the (epi)genome \& (epi)transcritpome
$\Delta$ in Epigenetics: Loci, regions, and clones

$\Delta$ in Transcriptome : Genes, Isoform, Edits, Allele, SNVs, ncRNAs, Fusions, \& Methylation


