CSV phenotype tables (excel, ....) imported to panda. Panda has functions for manipulation of this table

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Pheno 1 (BMI) | Pheno 2  Sex | Pheno 3  Case,control | Pheno 4  Tissue | . | Pheno N |
| Sample 1 | 37 | M | Tumor | colon |  | Level1 |
| Sample 2 | 25 | F | Normal | recto |  | Level2 |
| . | . | . |  | . |  |  |
| . | . | . |  | . |  | Level N1 |
| . | . | . |  | . |  |  |
| . | . | . |  | . |  |  |
| Sample m | 27.2 | M | Tumor | Splenic Flexure |  | Level 3 |
| Level/phenotype | continues | 2 | 2 | 5 |  | N1 |