Basic Data Types

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Experimental data

Gene 1 has an expression level of 7.65

Metadata (on exp)

Sample 1 is a 65y woman

Annotation

Gene 1 is highly conserved in yeast

Raw (unprocessed)

! Intermediates

Preprocessed data Gene 1 is expressed at 7.65

Results

@HWI-EAS121:4:100:1783:550#0/1 +HWI-EAS121:4:100:1783:550#0/1 aaaaa`b aa`aa`YaX]aZ`aZM^Z]YRa]YSG[[ZREQLHESDHNDDHNMEEDDMPENITKFLFEEDDDHEJQMEDDI ` ^^`]X]]XTV \]]NX XVX]] TTTTG[VTHPN]VFD2 +HWI-EAS121:4:100:1783:322#0/1 [aa\b^^[]aabbb][`a abbb`a``bbbbbabaabaaaab VZa ^ bab X`[a\HV [] [^ X\T VQQ +HWI-EAS121:4:100:1783:207#0/1 abba`Xa\^\\`aa]ba bba[a O a`aa`aa`a]^V]X a^YS\R \H []\ZTDUZZUSOPX]]POP\GS\WSHHI GGGTAATTCAGGGACAATGTAATGGCTGCACAAAAAAATACATCTTTCATGTTCCATTGCACCATTGACAAATACA +HWI-EAS121:4:100:1783:455#0/1

Gene 14 is altered in cancer

Data Container

If everybody puts their gene expression data into the same kind of box, it doesn't matter how the data came about, but that box is the same and can be used by analytic tools

Robert Gentleman on "Successful Comp Bio Software", Nat. Biotech (2013) 31:894

