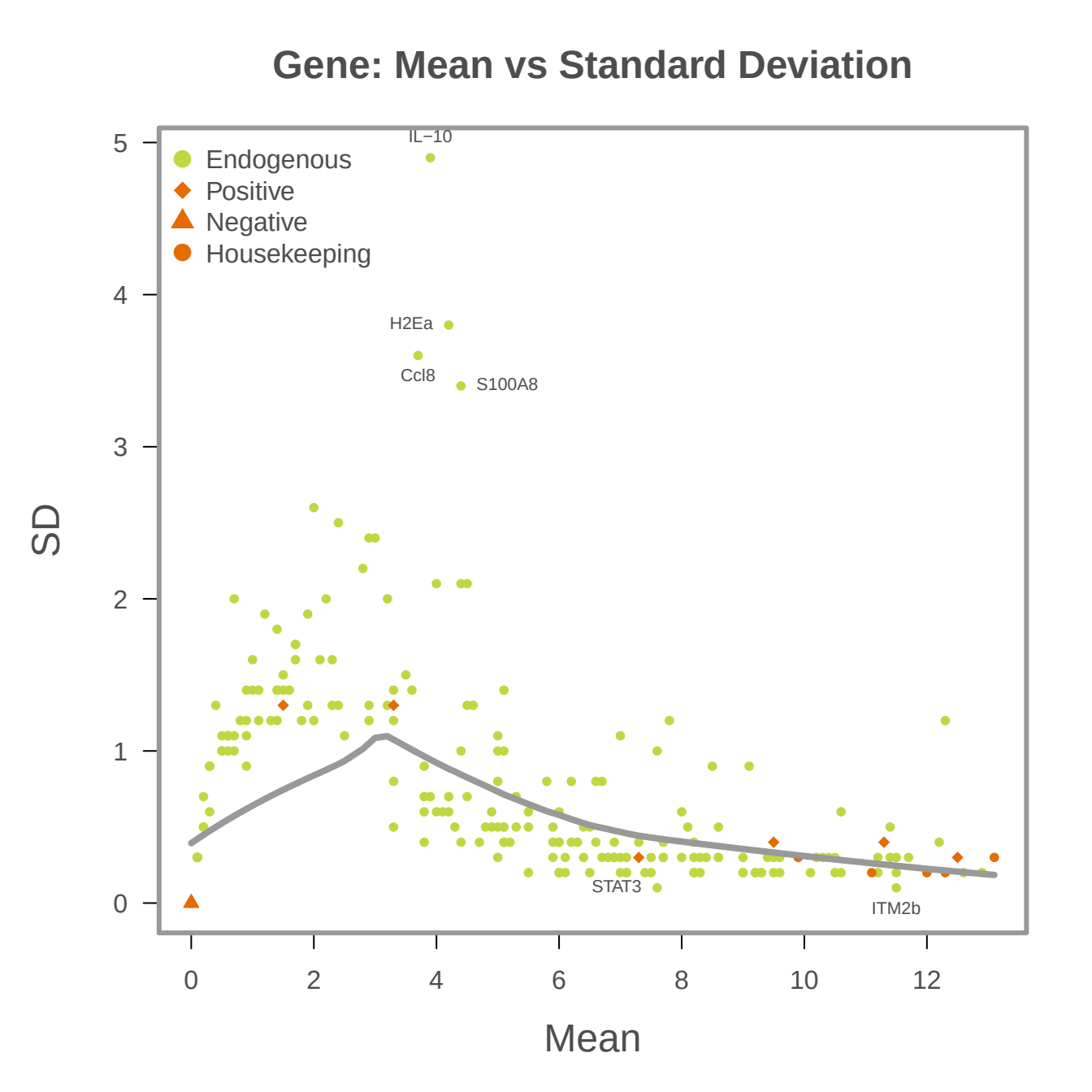
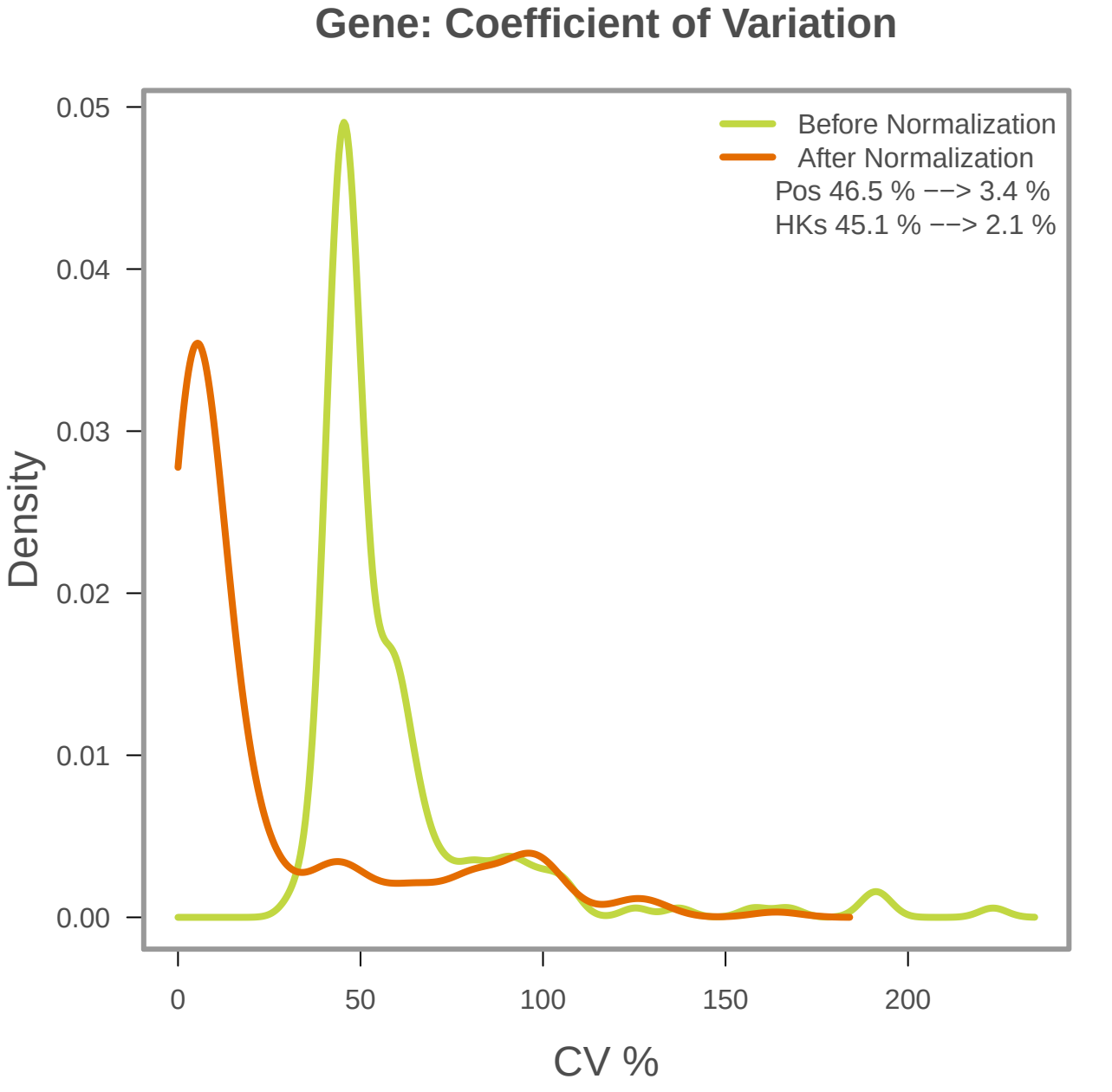
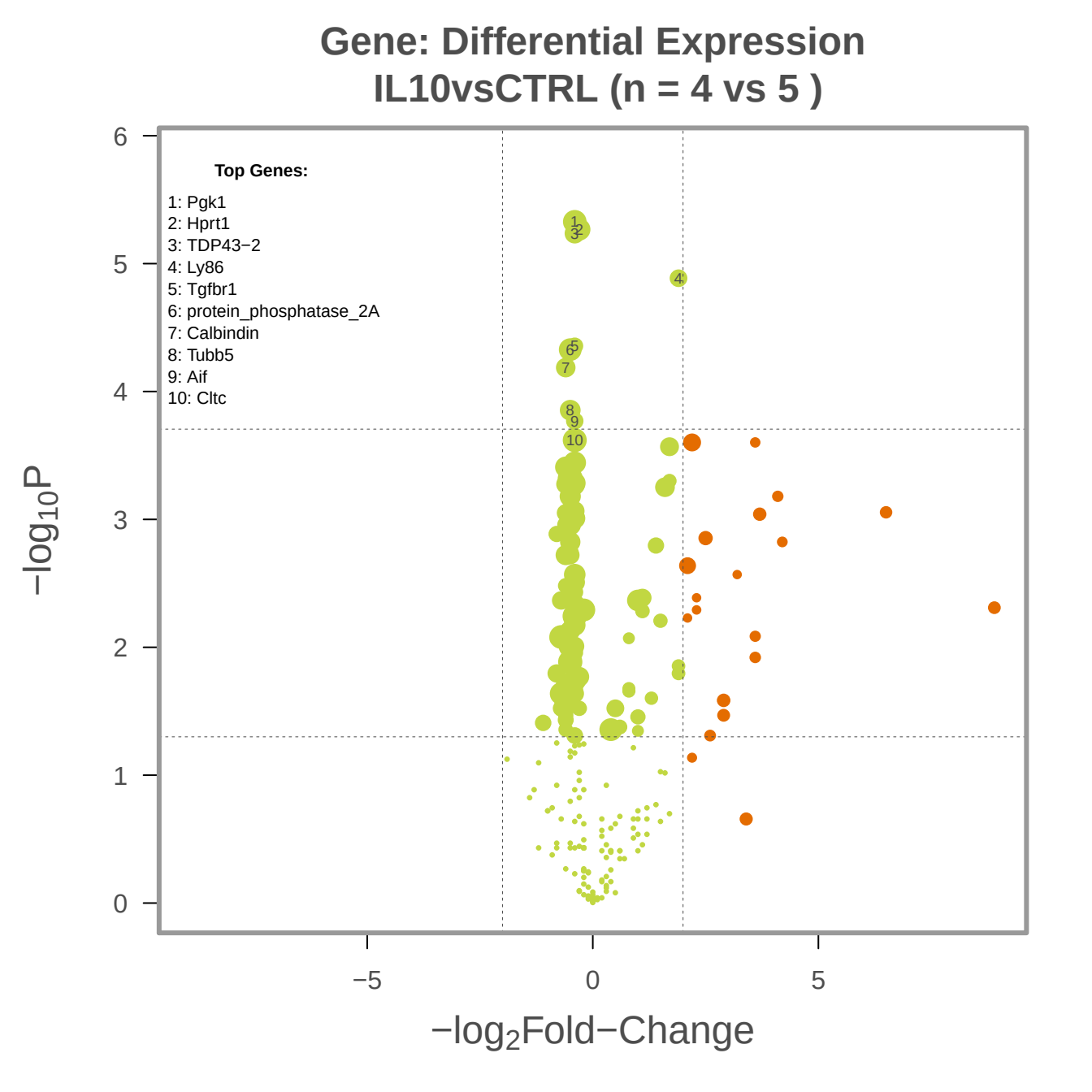
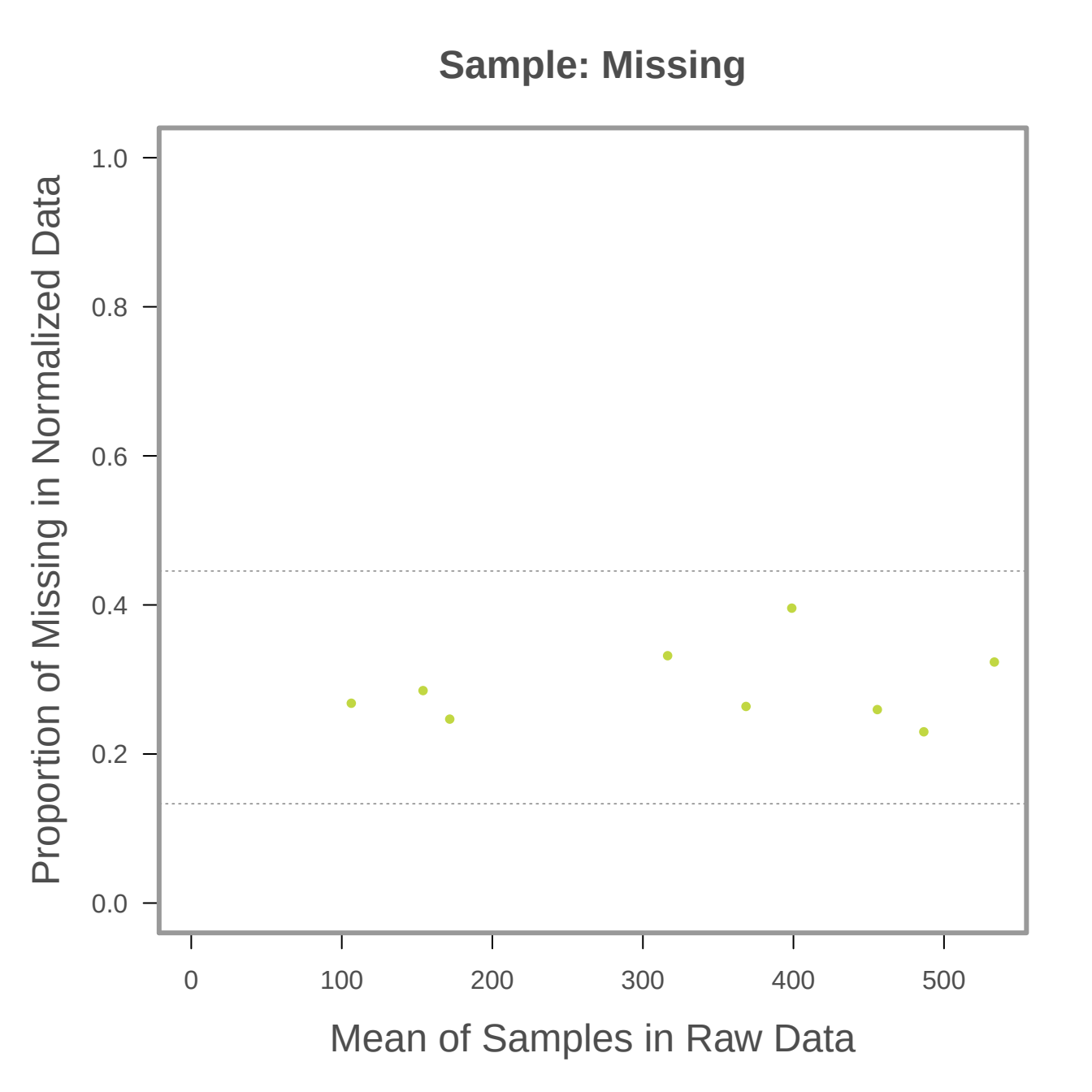
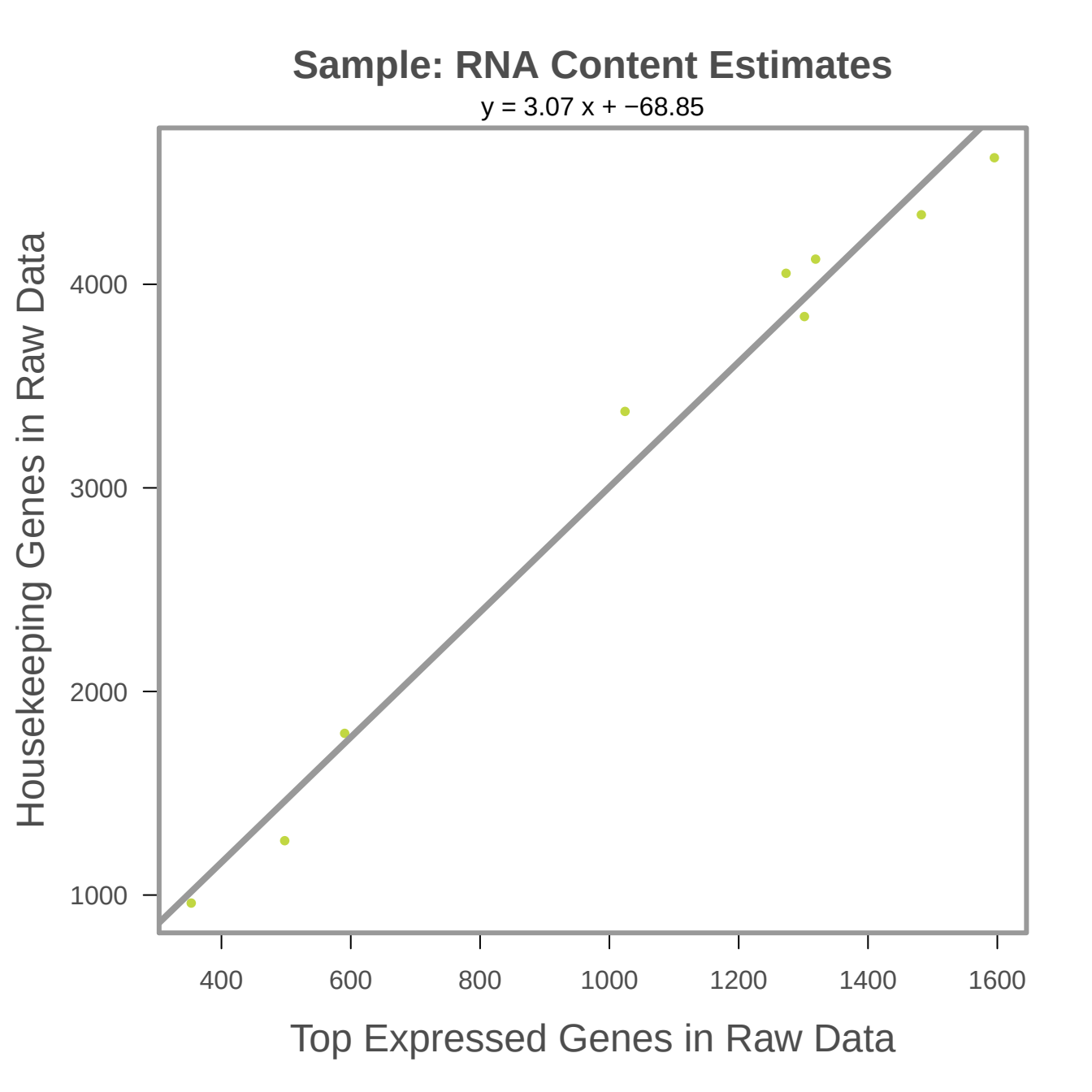
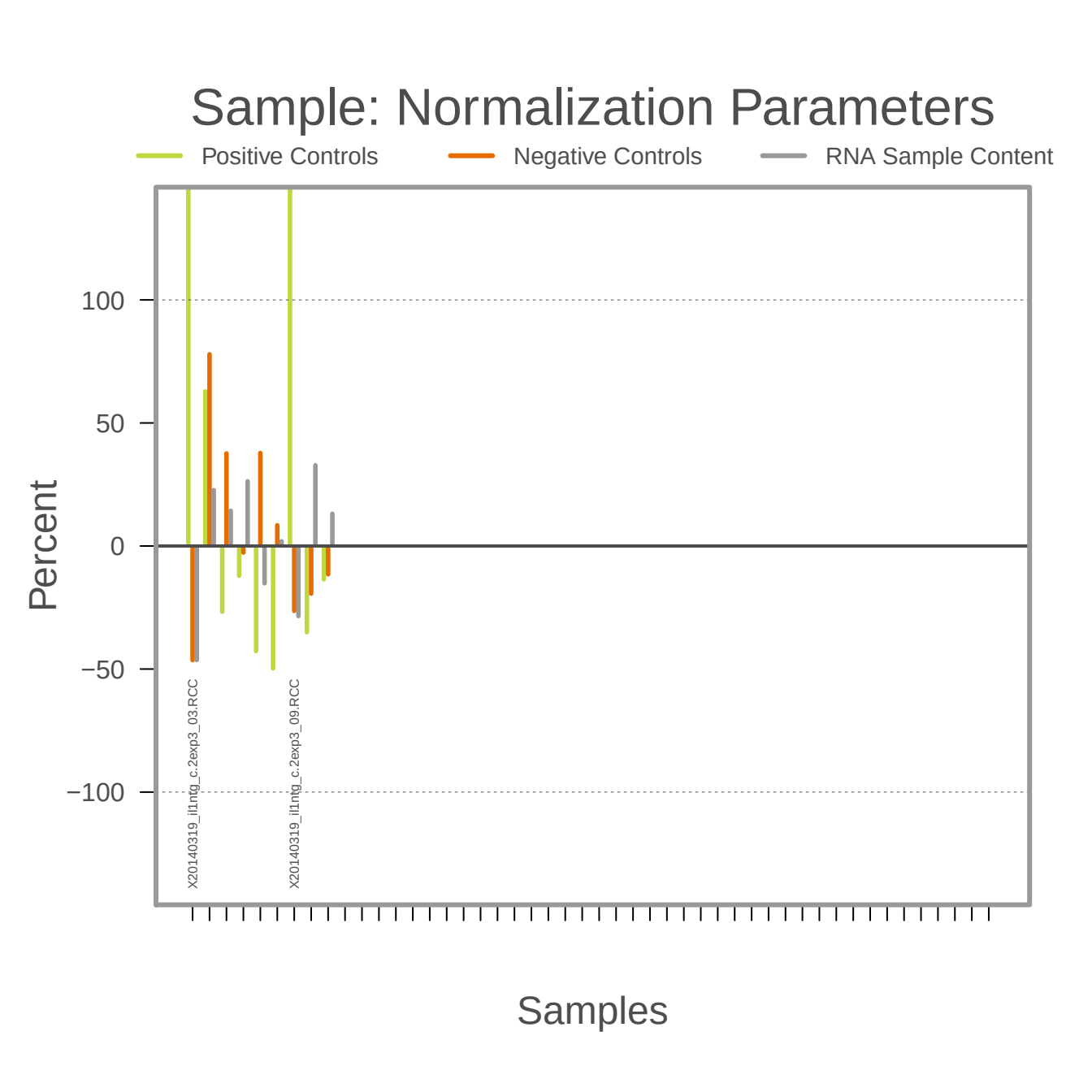

Gene: Mean vs Standard Deviation
Endogenous
Positive
Negative
Housekeeping
IL−10
H2Ea
Ccl8
S100A8
STAT3
ITM2b
SD
Mean
0
1
2
3
4
5
0
2
4
6
8
10
12

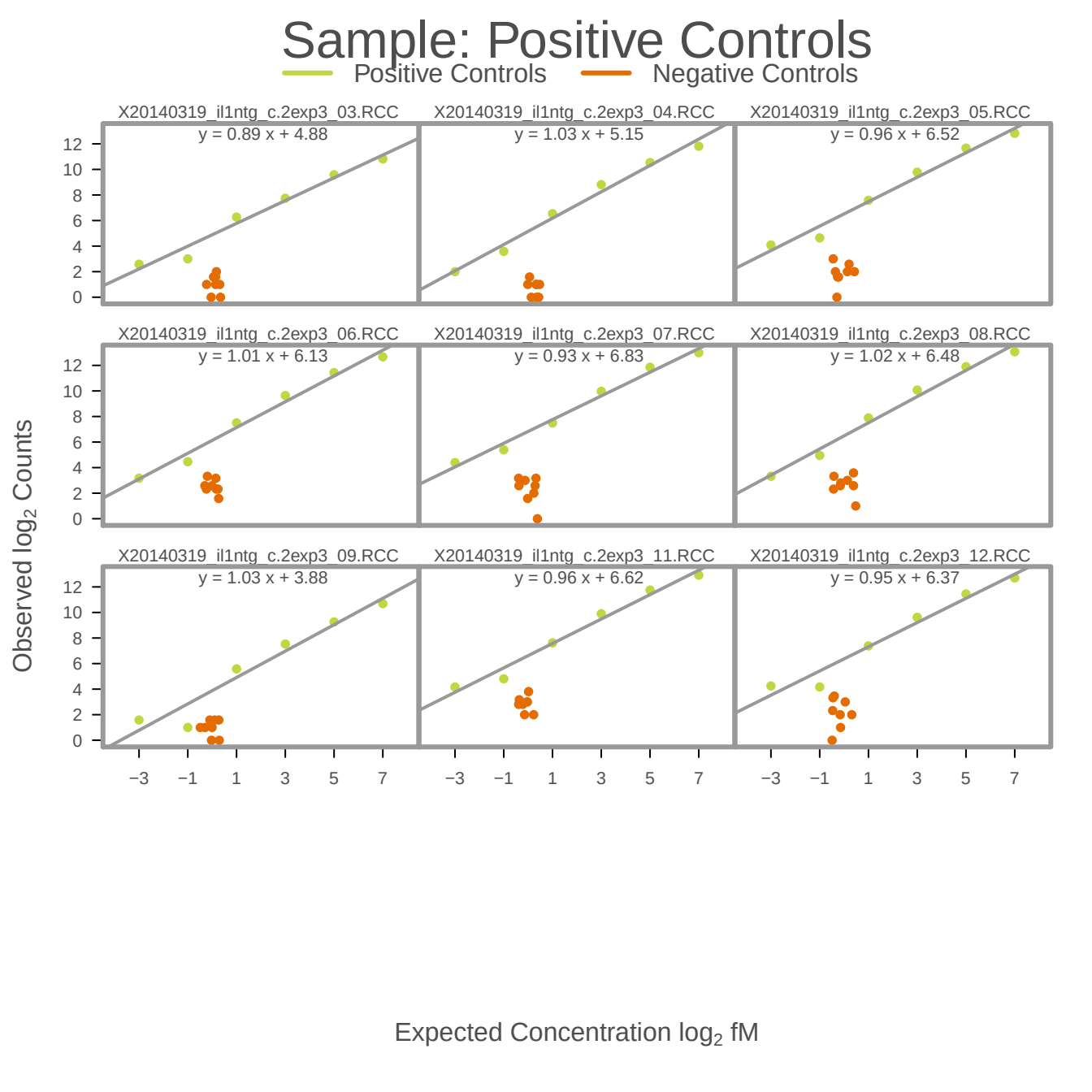

Gene: Coefficient of Variation
Before Normalization
After Normalization
Pos 46.5 % −−> 3.4 %
HKs 45.1 % −−> 2.1 %
Density
0.05
0.04
0.03
0.02
0.01
0.00
0
50
100
150
200
CV %


Gene: Differential Expression
IL10vsCTRL (n = 4 vs 5)
Top Genes:
1: Pgk1
2: Hprt1
3: TDP43−2
4: Ly86
5: Tgfbr1
6: protein_phosphatase_2A
7: Calbindin
8: Tubb5
9: Aif
10: Cltc
−log10P
−log2Fold−Change
6
5
4
3
2
1
0
−5
0
5


Sample: Missing
Proportion of Missing in Normalized Data
1.0
0.8
0.6
0.4
0.2
0.0
0
100
200
300
400
500
Mean of Samples in Raw Data


Sample: RNA Content Estimates
y = 3.07 x + −68.85
Housekeeping Genes in Raw Data
4000
3000
2000
1000
400
600
800
1000
1200
1400
1600
Top Expressed Genes in Raw Data


Sample: Normalization Parameters
Positive Controls
Negative Controls
RNA Sample Content
100
50
0
−50
−100
Percent
X20140319_il1ntg_c.2exp3_03.RCC
X20140319_il1ntg_c.2exp3_09.RCC
Samples


Sample: Positive Controls
Positive Controls
Negative Controls
X20140319_il1ntg_c.2exp3_03.RCC
y = 0.89 x + 4.88
X20140319_il1ntg_c.2exp3_04.RCC
y = 1.03 x + 5.15
X20140319_il1ntg_c.2exp3_05.RCC
y = 0.96 x + 6.52
X20140319_il1ntg_c.2exp3_06.RCC
y = 1.01 x + 6.13
X20140319_il1ntg_c.2exp3_07.RCC
y = 0.93 x + 6.83
X20140319_il1ntg_c.2exp3_08.RCC
y = 1.02 x + 6.48
X20140319_il1ntg_c.2exp3_09.RCC
y = 1.03 x + 3.88
X20140319_il1ntg_c.2exp3_11.RCC
y = 0.96 x + 6.62
X20140319_il1ntg_c.2exp3_12.RCC
y = 0.95 x + 6.37
Observed log2 Counts
Expected Concentration log2 fM