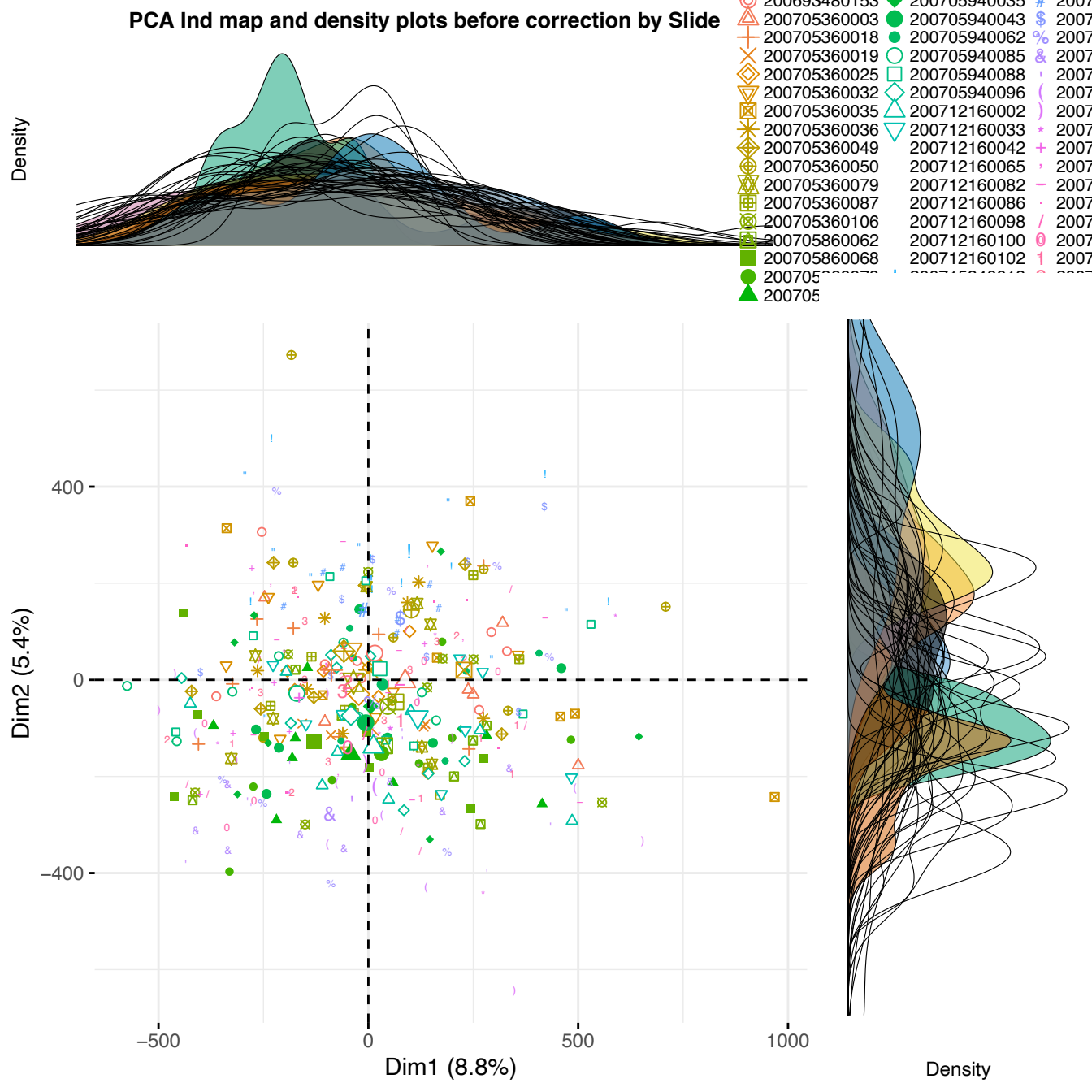
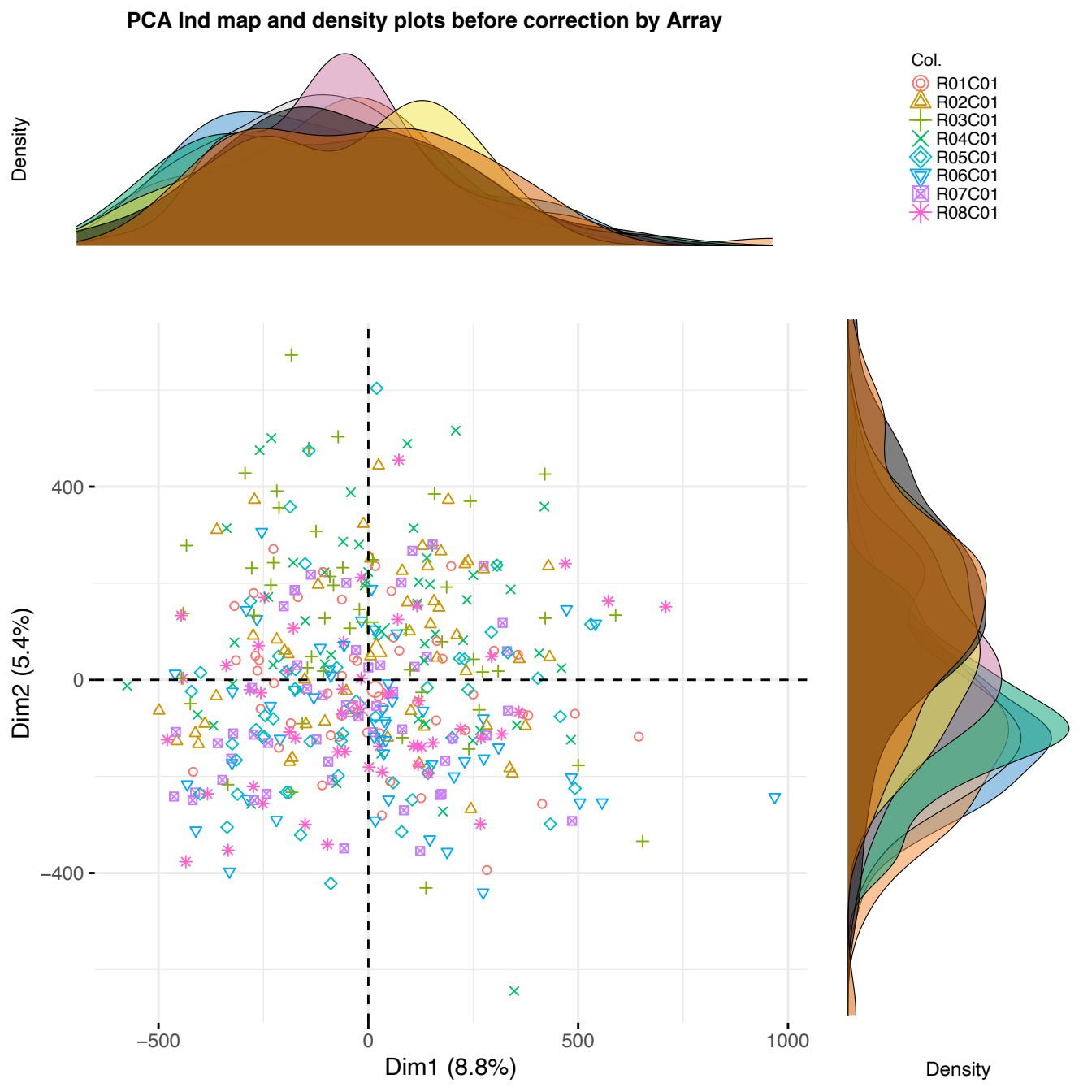
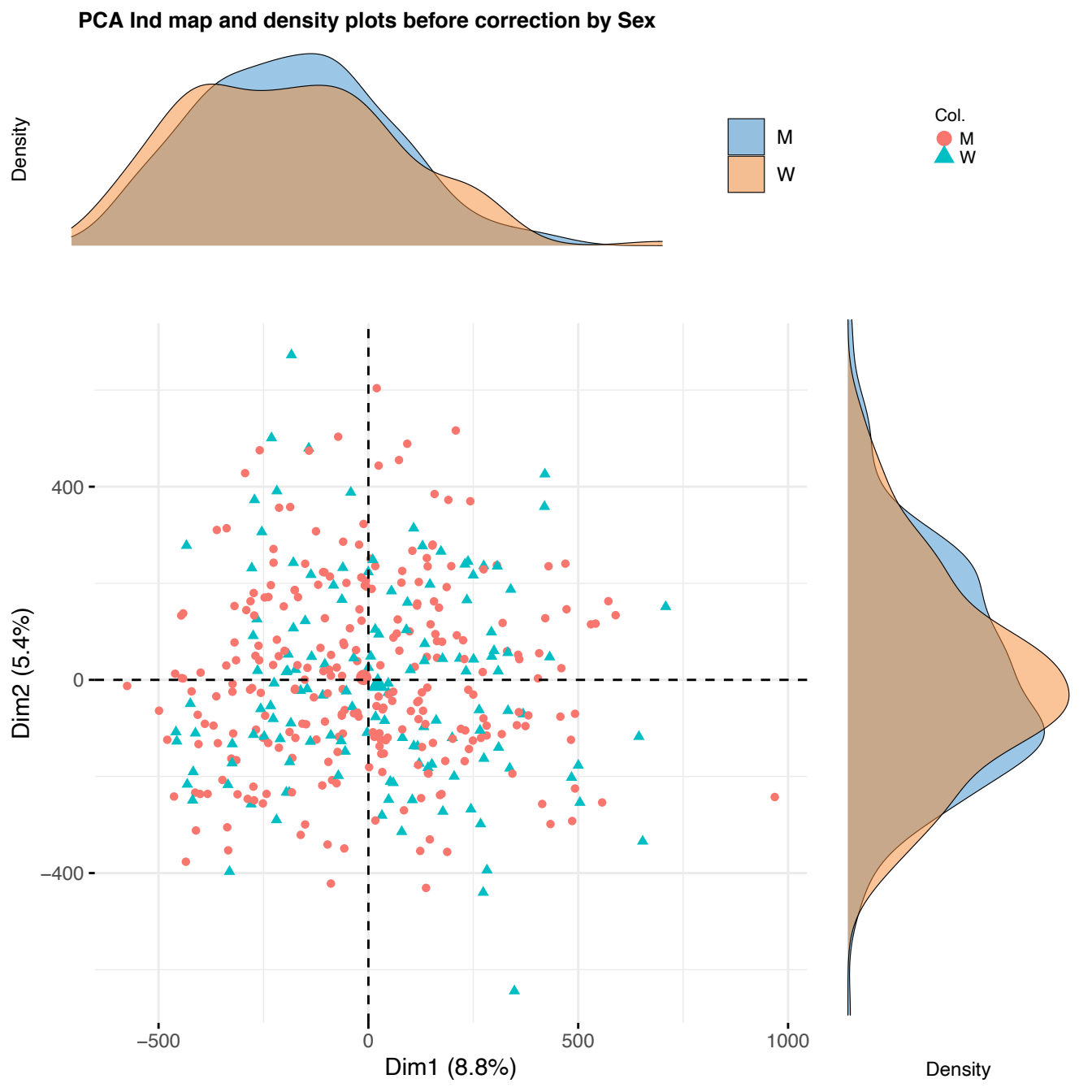

PCA Ind map and density plots before correction by Plate
Density
Col.
EPIC_Juni2016_05
EPIC_Juni2016_06
EPIC_Juni2016_07
EPIC_Juni2016_08
EPIC_Juni2016_09
400
0
−400
Dim2 (5.4%)
−500
0
500
1000
Dim1 (8.8%)
Density


PCA Ind map and density plots before correction by Slide
Density
200705360003
200705360018
200705360019
200705360025
200705360032
200705360035
200705360036
200705360049
200705360050
200705360079
200705360087
200705360106
200705860062
200705860068
200705940043
200705940062
200705940085
200705940088
200705940096
200712160002
200712160033
200712160042
200712160065
200712160082
200712160086
200712160098
200712160100
200712160102
400
0
−400
−500
0
500
1000
Dim1 (8.8%)
Dim2 (5.4%)
Density


PCA Ind map and density plots before correction by Array
Density
Col.
R01C01
R02C01
R03C01
R04C01
R05C01
R06C01
R07C01
R08C01
400
0
−400
Dim2 (5.4%)
−500
0
500
1000
Dim1 (8.8%)
Density


PCA Ind map and density plots before correction by Group (dex/veh)
Density
dex
veh
Col.
dex
veh
400
0
−400
Dim2 (5.4%)
−500
0
500
1000
Dim1 (8.8%)
Density


PCA Ind map and density plots before correction by Sex
Density
M
W
Col.
M
W
400
0
−400
Dim2 (5.4%)
−500
0
500
1000
Dim1 (8.8%)
Density

Summary table of P–values for PCs before batch correction

	P_Plate	P_Slide	P_Array	P_DEX	P_Sex
PC1.Pr..F.	3.584438e-01	9.911839e-01	7.085990e-01	3.491603e-54	0.7621092
PC2.Pr..F.	7.263513e-37	3.182475e-32	5.787849e-21	2.709166e-01	0.6017284
PC3.Pr..F.	1.995854e-61	4.116877e-82	1.162186e-11	1.648580e-01	0.1665054
PC4.Pr..F.	1.035088e-01	9.843404e-07	4.540187e-05	3.805267e-04	0.4175180
PC5.Pr..F.	8.744589e-17	2.289277e-46	2.193012e-02	2.511310e-01	0.1440686
PC6.Pr..F.	1.884224e-02	9.600490e-12	1.049526e-01	1.415589e-01	0.6514740

ANOVA results for Plate before batch correction

```
$PC1
Analysis of Variance Table

Response: pc
                       Df   Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Plate   4   286550   71637  1.0953 0.3584
Residuals              398 26029952   65402

$PC2
Analysis of Variance Table

Response: pc
                       Df   Sum Sq Mean Sq F value    Pr(>F)
prin.comp$Sample_Plate   4  5694470 1423618  54.937 < 2.2e-16 ***
Residuals              398 10313565   25913
---
Signif. codes:  0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ..... 0.1 ... ... 1

$PC3
Analysis of Variance Table

Response: pc
                       Df  Sum Sq Mean Sq F value    Pr(>F)
prin.comp$Sample_Plate   4 3852286  963072  106.08 < 2.2e-16 ***
Residuals              398 3613400    9079
---
Signif. codes:  0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ..... 0.1 ... ... 1

$PC4
Analysis of Variance Table

Response: pc
                       Df  Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Plate   4  131078   32770   1.937 0.1035
Residuals              398 6733352   16918

$PC5
Analysis of Variance Table

Response: pc
                       Df  Sum Sq Mean Sq F value    Pr(>F)
prin.comp$Sample_Plate   4  721105  180276  22.523 < 2.2e-16 ***
Residuals              398 3185660    8004
---
Signif. codes:  0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ..... 0.1 ... ... 1

$PC6
Analysis of Variance Table

Response: pc
                       Df  Sum Sq Mean Sq F value  Pr(>F)
prin.comp$Sample_Plate   4  104104 26026.0  2.9885 0.01884 *
```

ANOVA results for Slide before batch correction

```
$PC1
Analysis of Variance Table

Response: pc
                                       Df   Sum Sq Mean Sq F value Pr(>F)
as.factor(as.character(prin.comp$Slide))  50  1980144   39603  0.5728 0.9912
Residuals                              352 24336358   69137

$PC2
Analysis of Variance Table

Response: pc
                                       Df  Sum Sq Mean Sq F value    Pr(>F)
as.factor(as.character(prin.comp$Slide))  50 8260145  165203  7.5055 < 2.2e-16
Residuals                              352 7747890   22011

as.factor(as.character(prin.comp$Slide)) ***
Residuals
---
Signif. codes:  0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ..... 0.1 ... ... 1

$PC3
Analysis of Variance Table

Response: pc
                                       Df  Sum Sq Mean Sq F value    Pr(>F)
as.factor(as.character(prin.comp$Slide))  50 5680492  113610  22.401 < 2.2e-16
Residuals                              352 1785194    5072

as.factor(as.character(prin.comp$Slide)) ***
Residuals
---
Signif. codes:  0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ..... 0.1 ... ... 1

$PC4
Analysis of Variance Table

Response: pc
                                       Df  Sum Sq Mean Sq F value    Pr(>F)
as.factor(as.character(prin.comp$Slide))  50 1780830   35617  2.4662 9.843e-07
Residuals                              352 5083600   14442

as.factor(as.character(prin.comp$Slide)) ***
Residuals
---
Signif. codes:  0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ..... 0.1 ... ... 1

$PC5
Analysis of Variance Table

Response: pc
                                       Df  Sum Sq Mean Sq F value    Pr(>F)
```

ANOVA results for Array before batch correction

```
$PC1
Analysis of Variance Table

Response: pc
                Df   Sum Sq Mean Sq F value Pr(>F)
prin.comp$Array   7   302818   43260  0.6569 0.7086
Residuals       395 26013684   65857

$PC2
Analysis of Variance Table

Response: pc
                Df   Sum Sq Mean Sq F value    Pr(>F)
prin.comp$Array   7  3899786  557112  18.174 < 2.2e-16 ***
Residuals       395 12108249   30654
---
Signif. codes:  0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ..... 0.1 ... ... 1

$PC3
Analysis of Variance Table

Response: pc
                Df  Sum Sq Mean Sq F value    Pr(>F)
prin.comp$Array   7 1135191  162170  10.119 1.162e-11 ***
Residuals       395 6330496   16027
---
Signif. codes:  0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ..... 0.1 ... ... 1

$PC4
Analysis of Variance Table

Response: pc
                Df  Sum Sq Mean Sq F value   Pr(>F)
prin.comp$Array   7  526815   75259  4.6906 4.54e-05 ***
Residuals       395 6337615   16045
---
Signif. codes:  0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ..... 0.1 ... ... 1

$PC5
Analysis of Variance Table

Response: pc
                Df  Sum Sq Mean Sq F value  Pr(>F)
prin.comp$Array   7  157642 22520.3  2.3727 0.02193 *
Residuals       395 3749123  9491.5
---
Signif. codes:  0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ..... 0.1 ... ... 1

$PC6
Analysis of Variance Table

Response: pc
```

ANOVA results for Sample Group before batch correction

```
$PC1
Analysis of Variance Table

Response: pc
                       Df   Sum Sq  Mean Sq F value    Pr(>F)
prin.comp$Sample_Group   1 11870882 11870882  329.53 < 2.2e-16 ***
Residuals              401 14445620    36024
---
Signif. codes:  0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ..... 0.1 ... ... 1

$PC2
Analysis of Variance Table

Response: pc
                       Df   Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Group   1    48374   48374  1.2155 0.2709
Residuals              401 15959661   39800

$PC3
Analysis of Variance Table

Response: pc
                       Df  Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Group   1   35873   35873  1.9362 0.1649
Residuals              401 7429813   18528

$PC4
Analysis of Variance Table

Response: pc
                       Df  Sum Sq Mean Sq F value    Pr(>F)
prin.comp$Sample_Group   1  213020  213020  12.842 0.0003805 ***
Residuals              401 6651410   16587
---
Signif. codes:  0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ..... 0.1 ... ... 1

$PC5
Analysis of Variance Table

Response: pc
                       Df  Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Group   1   12826 12825.9  1.3208 0.2511
Residuals              401 3893940  9710.6

$PC6
Analysis of Variance Table

Response: pc
                       Df  Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Group   1   19211 19211.3  2.1695 0.1416
Residuals              401 3550972  8855.3
```

ANOVA results for Sex before batch correction

```
$PC1
Analysis of Variance Table

Response: pc
               Df   Sum Sq Mean Sq F value Pr(>F)
prin.comp$sex   1     6021    6021  0.0918 0.7621
Residuals     401 26310481   65612

$PC2
Analysis of Variance Table

Response: pc
               Df   Sum Sq Mean Sq F value Pr(>F)
prin.comp$sex   1    10884   10884  0.2728 0.6017
Residuals     401 15997151   39893

$PC3
Analysis of Variance Table

Response: pc
               Df  Sum Sq Mean Sq F value Pr(>F)
prin.comp$sex   1   35596   35596  1.9211 0.1665
Residuals     401 7430091   18529

$PC4
Analysis of Variance Table

Response: pc
               Df  Sum Sq Mean Sq F value Pr(>F)
prin.comp$sex   1   11256   11256  0.6587 0.4175
Residuals     401 6853174   17090

$PC5
Analysis of Variance Table

Response: pc
               Df  Sum Sq Mean Sq F value Pr(>F)
prin.comp$sex   1   20761 20760.8  2.1423 0.1441
Residuals     401 3886005  9690.8

$PC6
Analysis of Variance Table

Response: pc
               Df  Sum Sq Mean Sq F value Pr(>F)
prin.comp$sex   1    1818  1818.5  0.2044 0.6515
Residuals     401 3568365  8898.7

$PC7
Analysis of Variance Table

Response: pc
```