









Summary table of P-values for PCs

	P_Plate	P_Slide	P_Array	P_DEX	P_Sex
PC1.PrF.	0.9953228	9.986590e-01	8.248444e-01	9.768054e-56	0.70463336
PC2.PrF.	0.5363231	1.293946e-06	9.977032e-43	8.681550e-01	0.23994564
PC3.PrF.	0.9897928	1.018913e-05	2.594093e-04	2.810230e-04	0.35226088
PC4.PrF.	0.3329909	1.002059e-69	2.407481e-12	2.692108e-01	0.03337598
PC5.PrF.	0.8656661	1.942206e-14	8.713195e-01	8.022871e-01	0.36576084
PC6.PrF.	0.5378307	1.471388e-12	2.100520e-02	3.703995e-02	0.58709252

ANOVA results for Plate

```
$PC1
Analysis of Variance Table
Response: pc
                      Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Plate 4 13644 3411 0.0499 0.9953
Residuals
                     398 27217439 68386
Analysis of Variance Table
Response: pc
                      Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Plate 4 96929 24232 0.7836 0.5363
                     398 12307924 30924
Residuals
$PC3
Analysis of Variance Table
Response: pc
                      Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample Plate 4 5148 1286.9 0.0749 0.9898
                    398 6836231 17176.5
Residuals
SPC4
Analysis of Variance Table
Response: pc
                      Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample Plate 4 49793 12448 1.1491 0.333
                     398 4311529 10833
Residuals
$PC5
Analysis of Variance Table
Response: pc
                      Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample Plate 4 11435 2858.9 0.3184 0.8657
                    398 3573966 8979.8
Residuals
$PC6
Analysis of Variance Table
Response: pc
                      Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Plate 4 26538 6634.5 0.7813 0.5378
Residuals
                     398 3379738 8491.8
SPC7
Analysis of Variance Table
Reenonce no
```

ANOVA results for Slide

```
SPC1
Analysis of Variance Table
Response: pc
                                         Df Sum Sq Mean Sq F value Pr(>F)
as.factor(as.character(prin.comp$Slide)) 50 1768607 35372 0.489 0.9987
                                        352 25462477 72337
Residuals
Analysis of Variance Table
Response: pc
                                         Df Sum Sq Mean Sq F value
as.factor(as.character(prin.comp$Slide)) 50 3195185 63904 2.4424 1.294e-06
                                        352 9209668 26164
Residuals
as.factor(as.character(prin.comp$Slide)) ***
Residuals
Signif. codes: 0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ...... 0.1 ... ... 1
Analysis of Variance Table
Response: pc
                                         Df Sum Sq Mean Sq F value
as.factor(as.character(prin.comp$Slide)) 50 1662880 33258 2.2606 1.019e-05
Residuals
                                        352 5178499 14712
as.factor(as.character(prin.comp$Slide)) ***
Residuals
Signif. codes: 0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ...... 0.1 ... 1
Analysis of Variance Table
Response: pc
                                         Df Sum Sq Mean Sq F value
as.factor(as.character(prin.comp$Slide)) 50 3124977 62500 17.794 < 2.2e-16
Residuals
                                        352 1236345
                                                    3512
as.factor(as.character(prin.comp$Slide)) ***
Residuals
Signif. codes: 0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ...... 0.1 ... ... 1
Analysis of Variance Table
Response: pc
                                         Df Sum Sa Mean Sa F tralue
                                                                      Dr/>F1
```

ANOVA results for Array

```
SPC1
Analysis of Variance Table
Response: pc
                Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Array 7 245310 35044 0.513 0.8248
              395 26985773 68318
Residuals
Analysis of Variance Table
Response: pc
                Df Sum Sq Mean Sq F value
                                            Pr(>F)
prin.comp$Array 7 5173291 739042 40.368 < 2.2e-16 ***
Residuals
               395 7231561 18308
Signif. codes: 0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ...... 0.1 ... 1
$PC3
Analysis of Variance Table
Response: pc
                Df Sum Sq Mean Sq F value
prin.comp$Array 7 458983
                            65569
                                   4.058 0.0002594 ***
Residuals
              395 6382396
                            16158
Signif. codes: 0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ...... 0.1 ... 1
Analysis of Variance Table
Response: pc
                Df Sum Sq Mean Sq F value
prin.comp$Array 7 694600 99229 10.69 2.407e-12 ***
             395 3666722
Residuals
                            9283
Signif. codes: 0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ...... 0.1 ... 1
SPC5
Analysis of Variance Table
Response: pc
                Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Array 7 28252 4036.0 0.4482 0.8713
Residuals
               395 3557150 9005.4
$PC6
Analysis of Variance Table
Response: pc
                Df Sum Sg Mean Sg F value Pr(>F)
nrin comp$array 7 138413 19773 3 2 3901 0 02101 *
```

ANOVA results for Sample Group

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SPC1
Analysis of Variance Table
Response: pc
                      Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Group 1 12546928 12546928 342.64 < 2.2e-16 ***
                    401 14684155
Residuals
                                  36619
Signif. codes: 0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ...... 0.1 ... 1
SPC2
Analysis of Variance Table
Response: pc
                      Df Sum Sq Mean Sq F value Pr(>F)
                          853 853.5 0.0276 0.8682
prin.comp$Sample Group 1
Residuals
                     401 12403999 30932.7
$PC3
Analysis of Variance Table
Response: pc
                      Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Group 1 221689 221689 13.429 0.000281 ***
                     401 6619690 16508
Signif. codes: 0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ...... 0.1 ... 1
Analysis of Variance Table
Response: pc
                      Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Group 1 13273 13274 1.2242 0.2692
                     401 4348048 10843
Residuals
Analysis of Variance Table
Response: pc
                      Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample Group 1 561 561.2 0.0628 0.8023
Residuals
                     401 3584840 8939.8
$PC6
Analysis of Variance Table
Response: pc
                      Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$Sample_Group 1 36785 36785 4.3777 0.03704 *
                    401 3369491 8403
Residuals
```

ANOVA results for Sex

```
SPC1
Analysis of Variance Table
Response: pc
             Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$sex 1 9769 9769 0.1439 0.7046
Residuals
            401 27221315 67884
Analysis of Variance Table
Response: pc
             Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$sex 1 42698 42698 1.385 0.2399
            401 12362154 30828
Residuals
$PC3
Analysis of Variance Table
Response: pc
             Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$sex 1 14765 14765 0.8673 0.3523
            401 6826614 17024
Residuals
SPC4
Analysis of Variance Table
Response: pc
             Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$sex 1 49013 4.5577 0.03338 *
Residuals
          401 4312308 10754
Signif. codes: 0 ...***... 0.001 ...**... 0.01 ...*... 0.05 ...... 0.1 ... 1
Analysis of Variance Table
Response: pc
             Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$sex 1 7316 7315.7 0.8199 0.3658
Residuals
            401 3578086 8922.9
$PC6
Analysis of Variance Table
Response: pc
             Df Sum Sq Mean Sq F value Pr(>F)
prin.comp$sex 1
                 2507 2507.3 0.2954 0.5871
            401 3403769 8488.2
Residuals
$PC7
Analysis of Variance Table
```