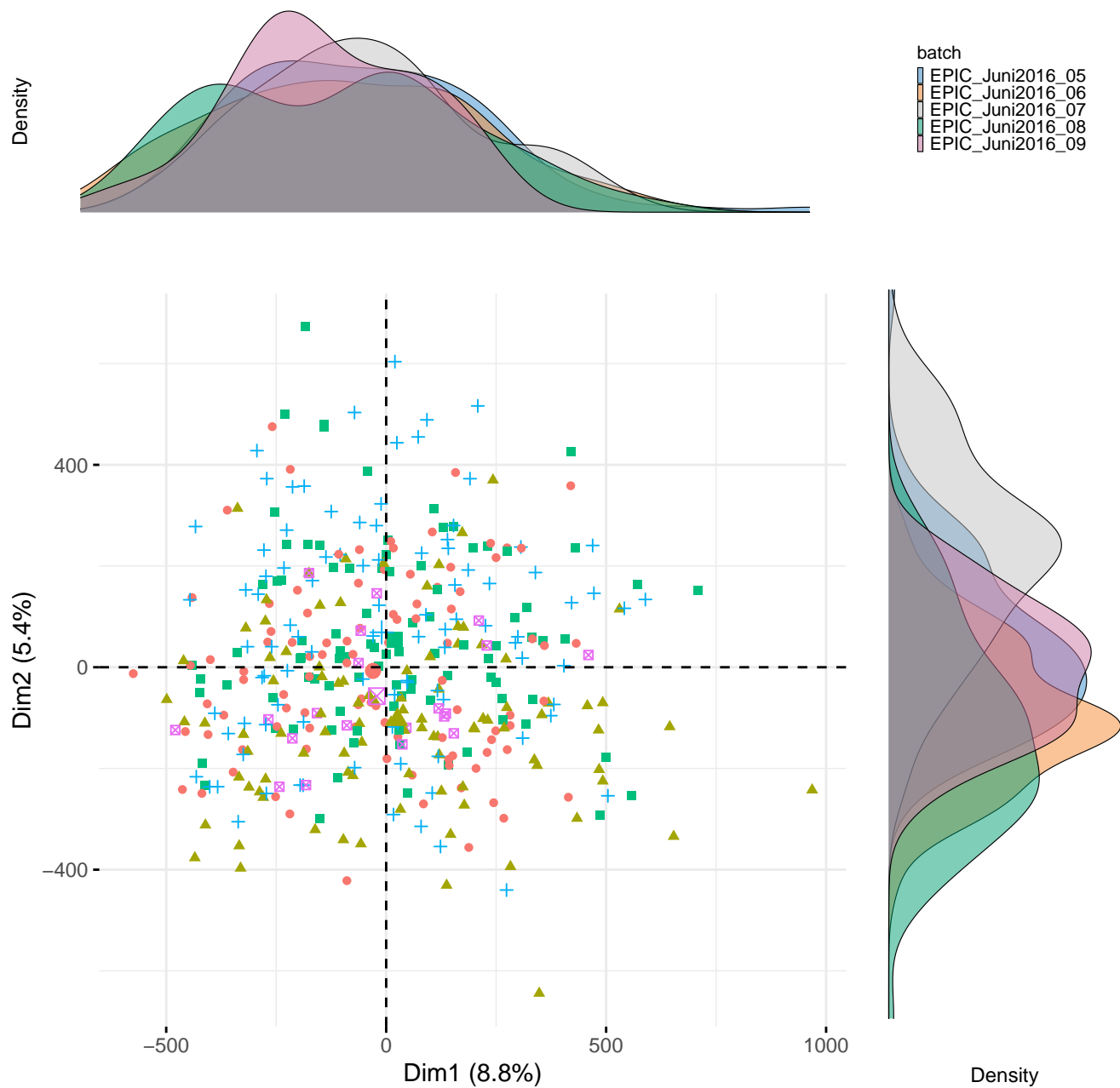
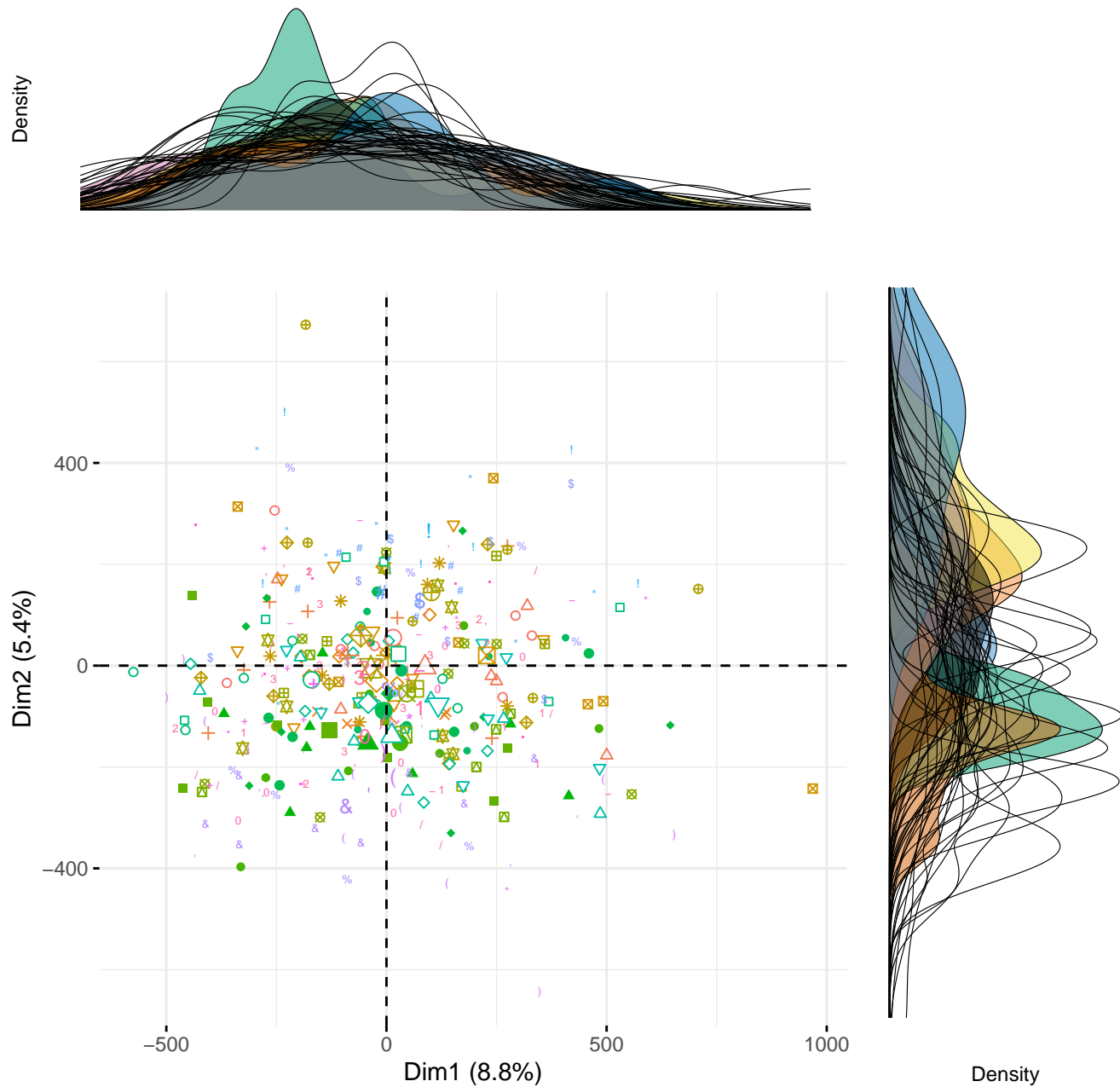


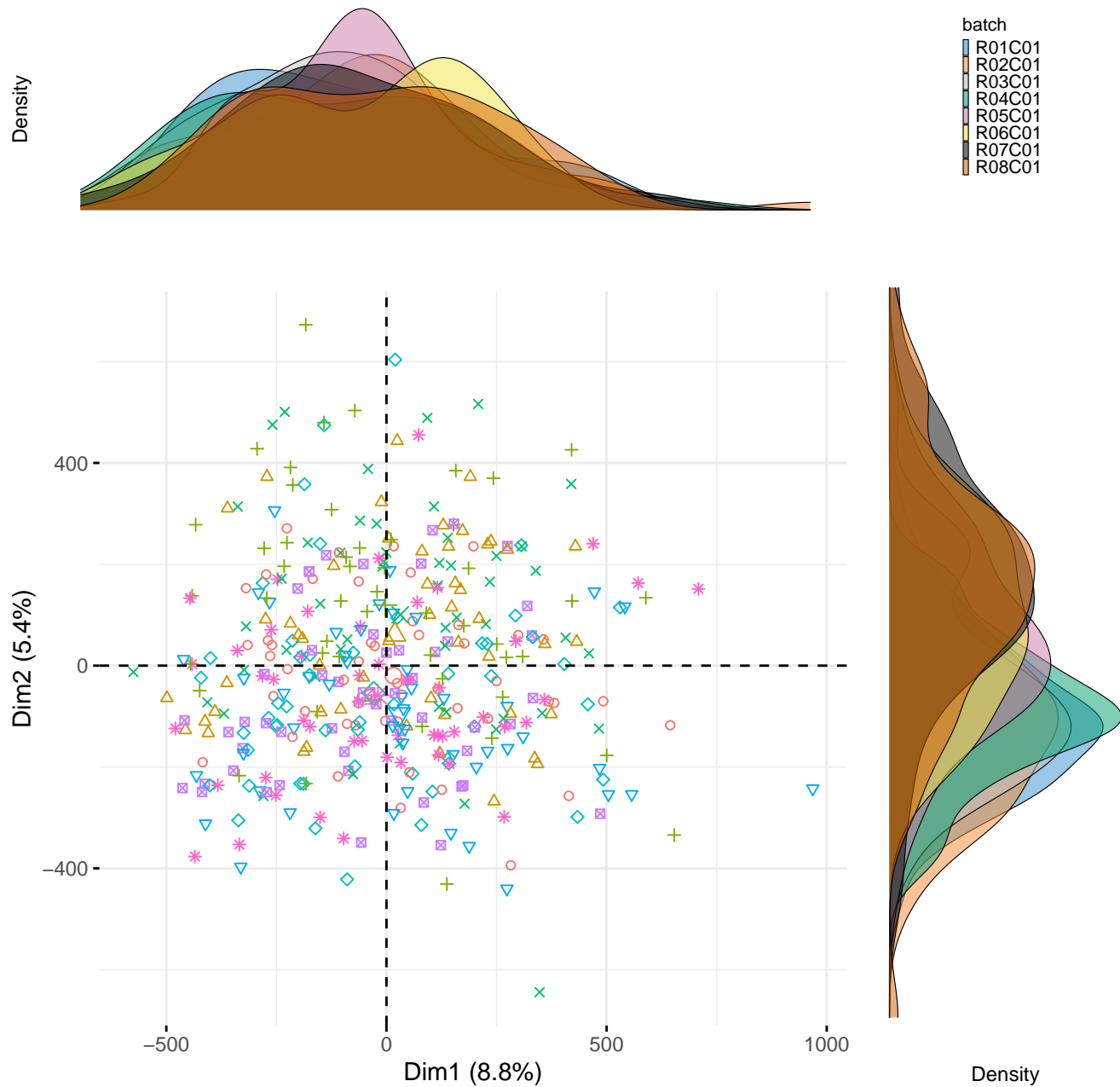
PCA Individual Map and Density Plots byPlate



PCA Individual Map and Density Plots bySlide



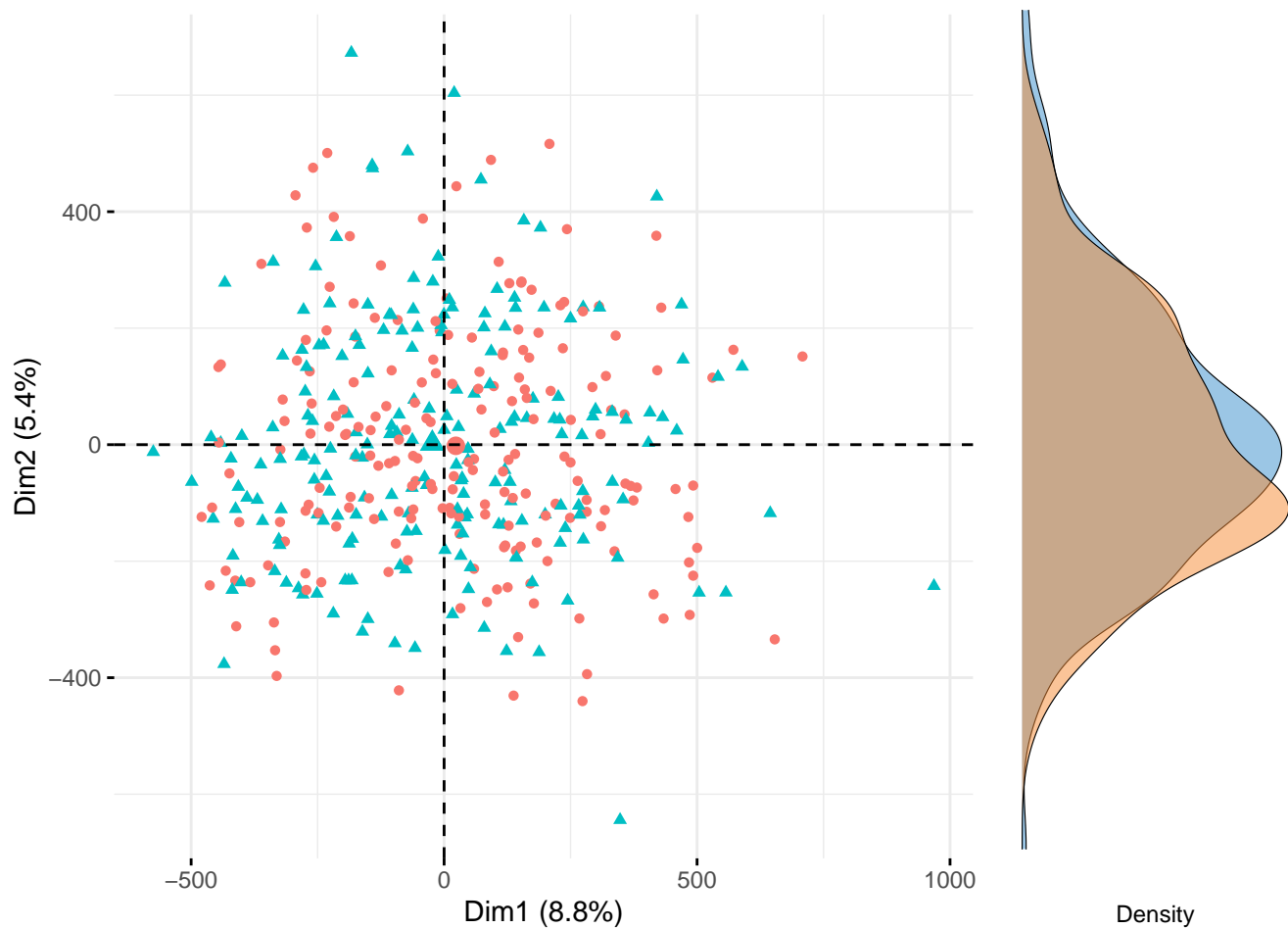
PCA Individual Map and Density Plots byArray



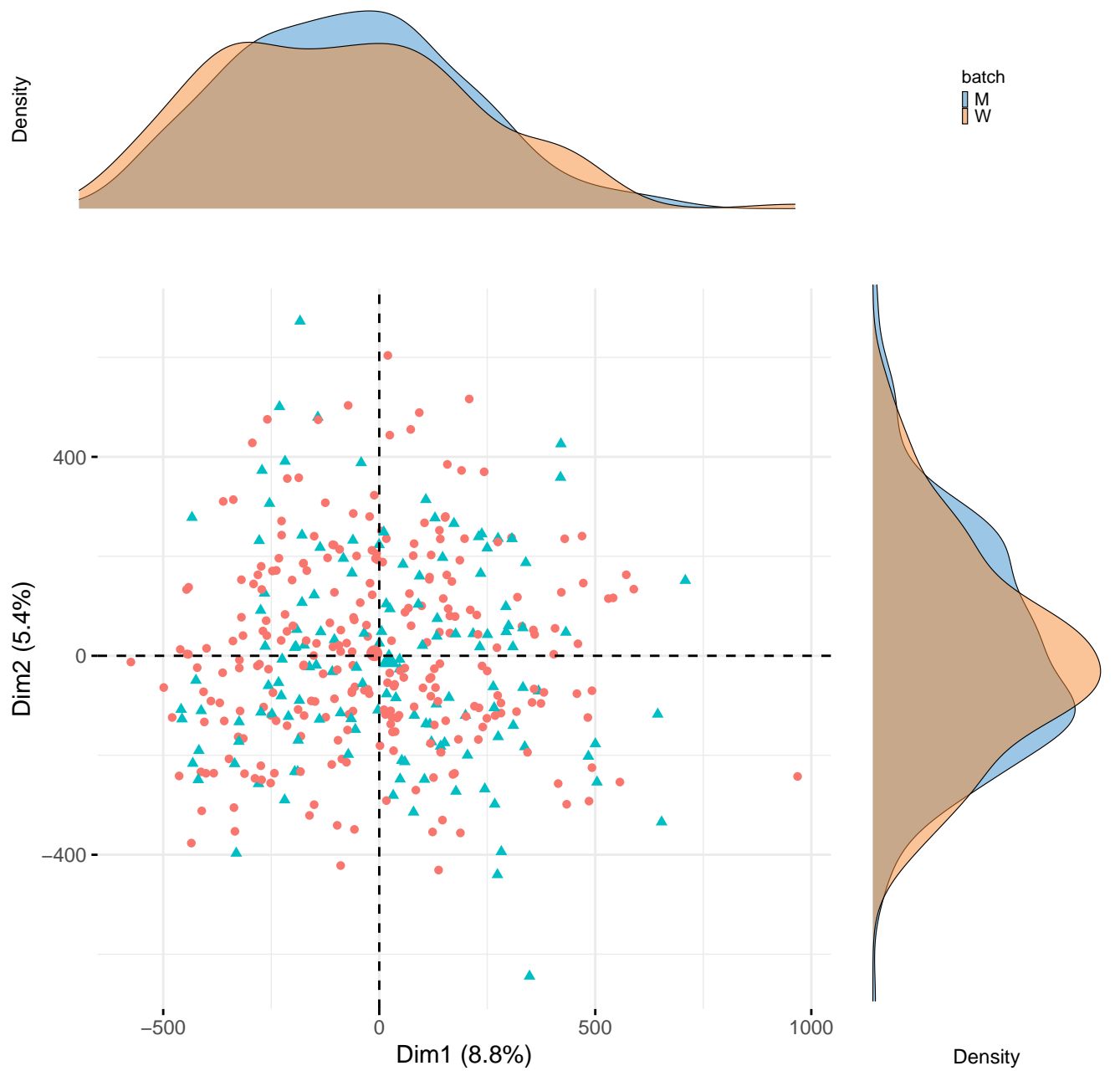
PCA Individual Map and Density Plots byGroup (dex/veh)

Density

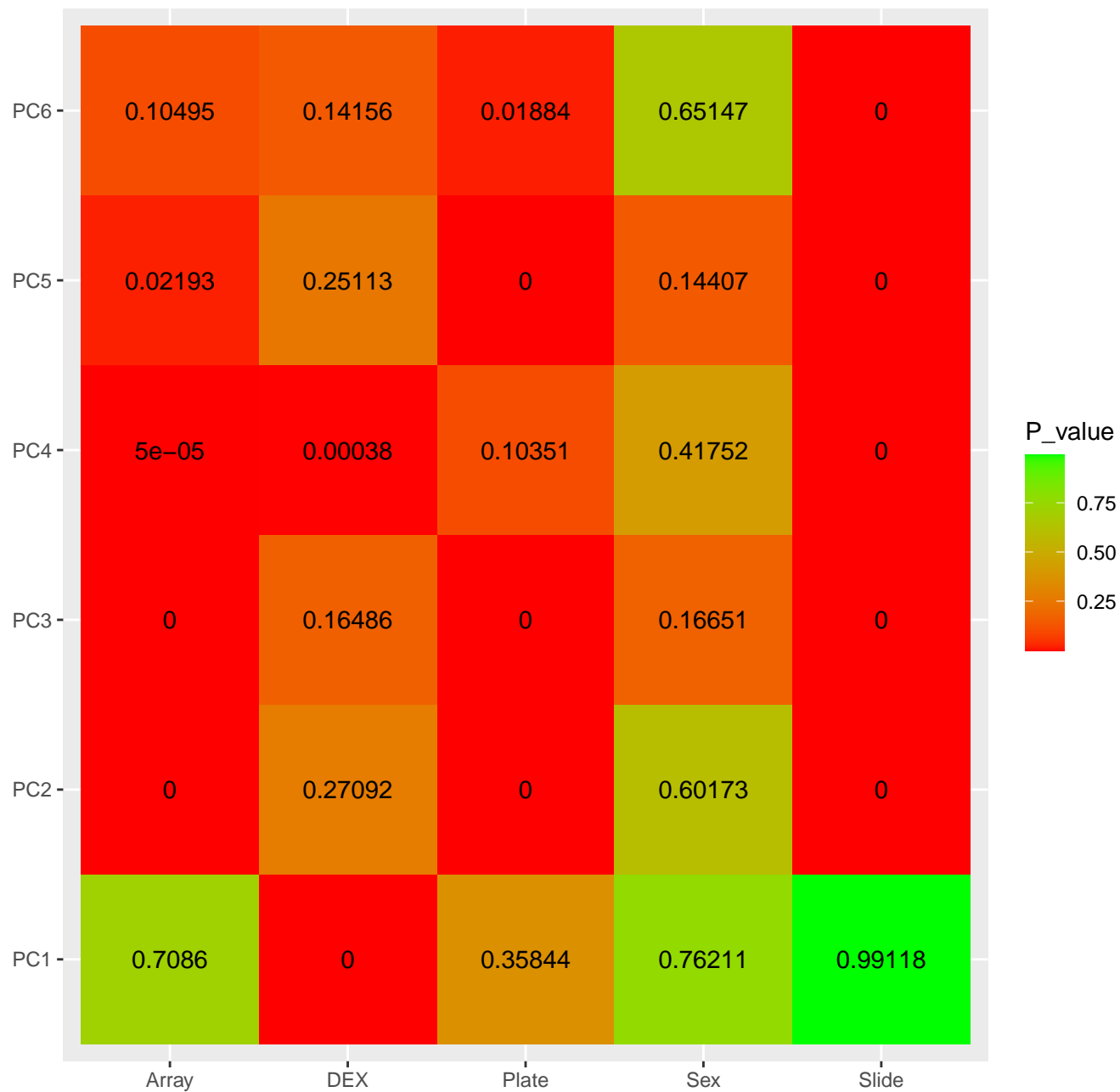
batch
dex
veh



PCA Individual Map and Density Plots bySex



Graphical representation of ANOVA p-values



Summary table of P-values for PCs

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

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   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  0.29885  0.01884 *
```

ANOVA results for Slide

```
$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

\$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

\$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

\$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		