PHQ9 MDD prediction with log transformation and scale by samples
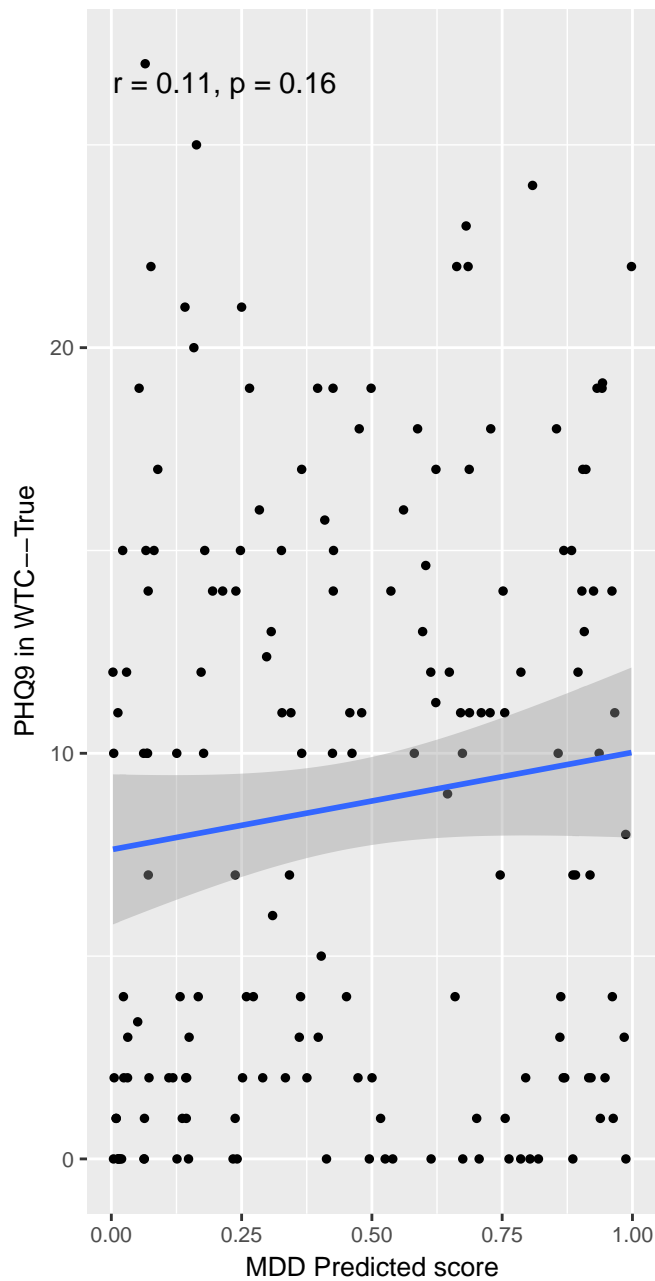
```
Train on MDD of batch 3
 Test on batch 4 and Mostafavi
 Prediction Model on MDD of Batch 4 and Mostafavi:
 AUC are 0.524355670103093 0.442570828365412 respectively
```
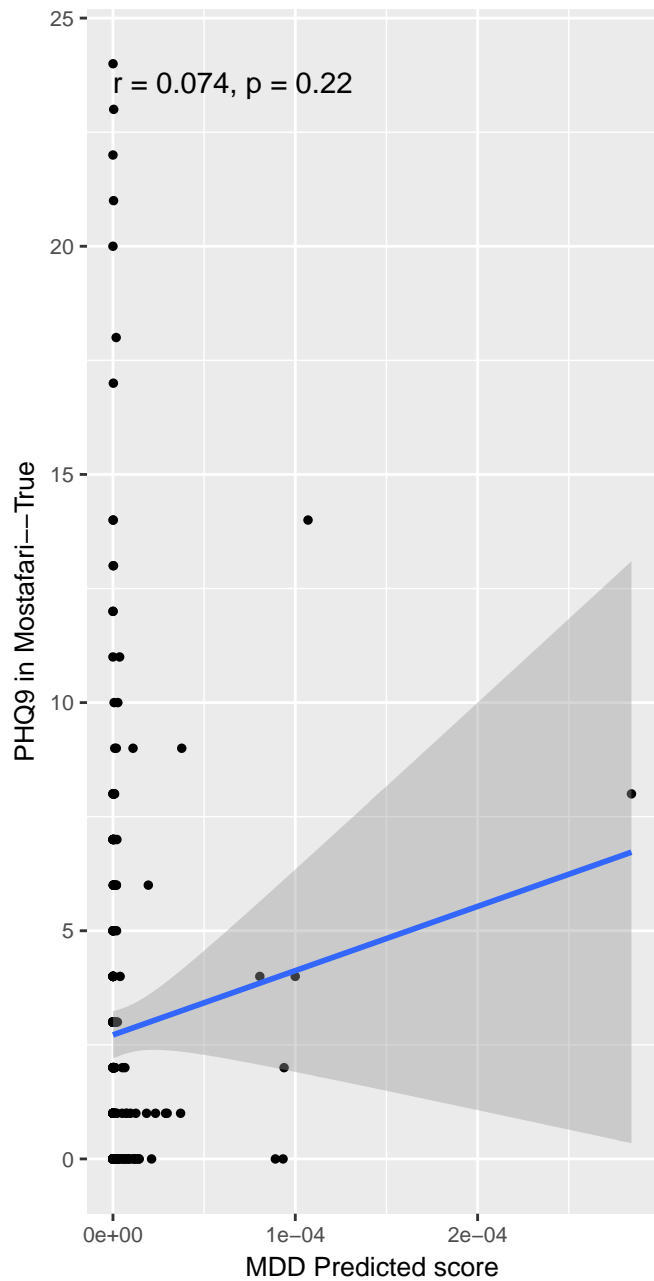
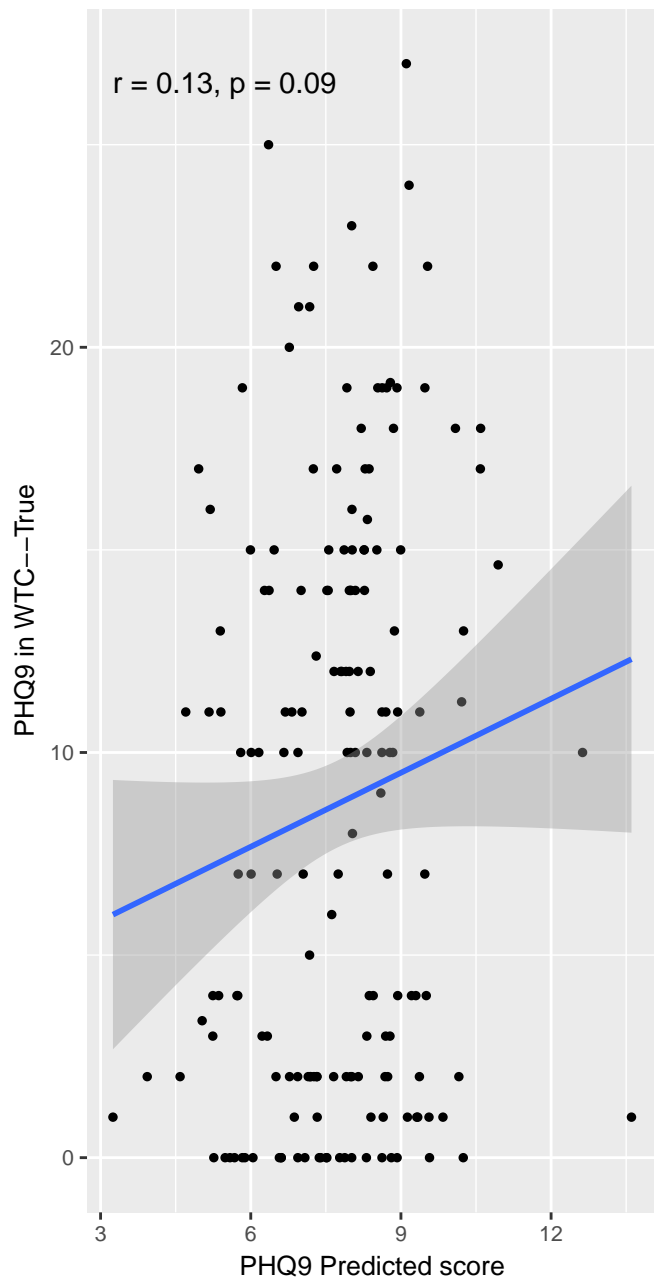MDD Predicted score vs PHQ9 by ElasticNe   MDD Predicted score vs PHQ9 by ElasticNe

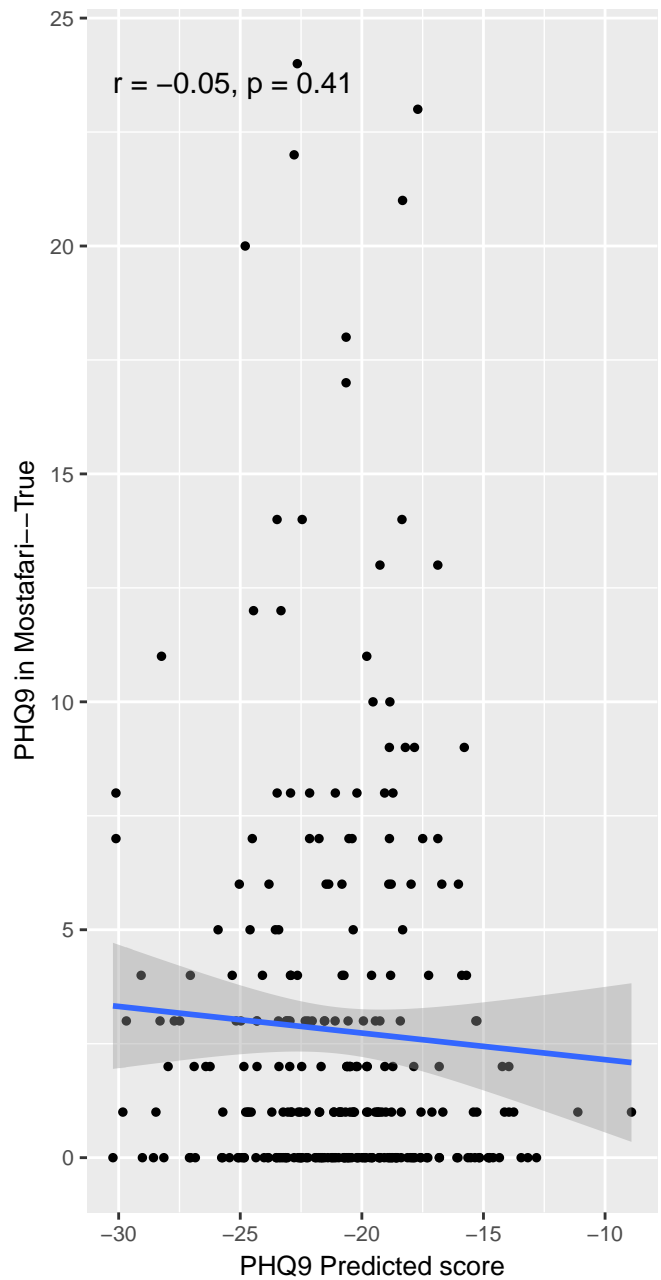Train on PHQ9 of batch 3
 Test on batch 4 and Mostafavi
 Prediction Model on MDD of Batch 4 and Mostafavi:
 AUC are 0.577786851776235 0.44955430647817 respectively

PHQ9 Predicted score vs PHQ9 by ElasticN — PHQ9 Predicted score vs PHQ9 by ElasticN
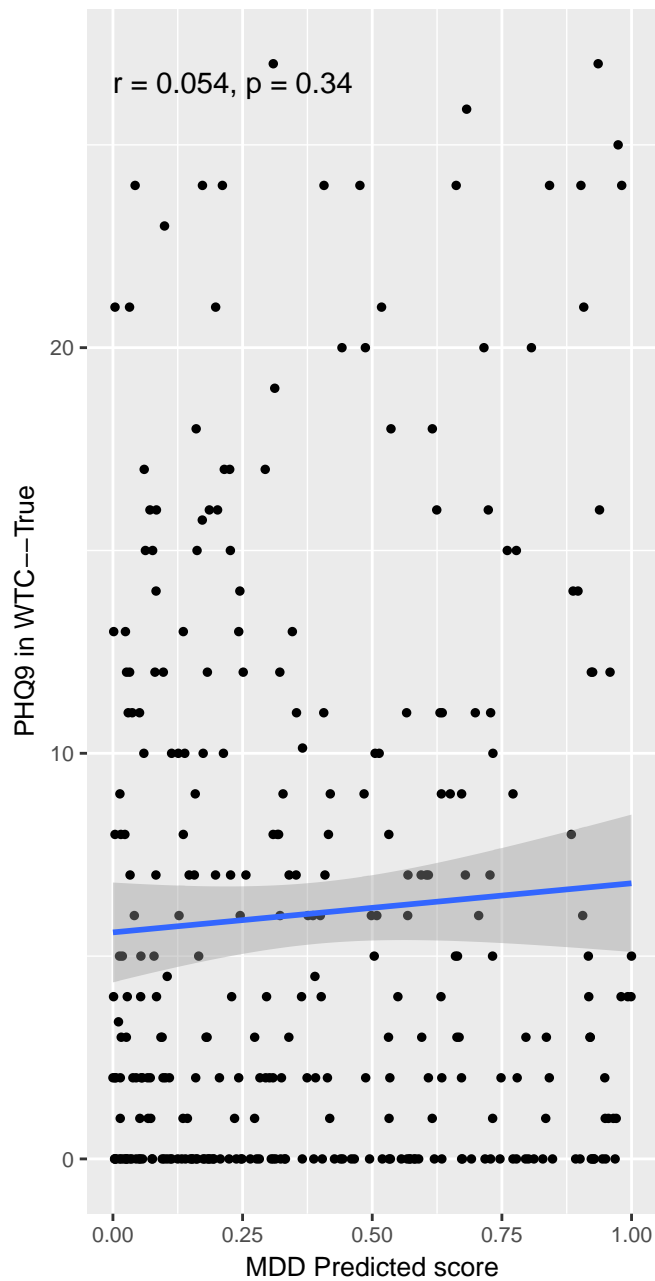
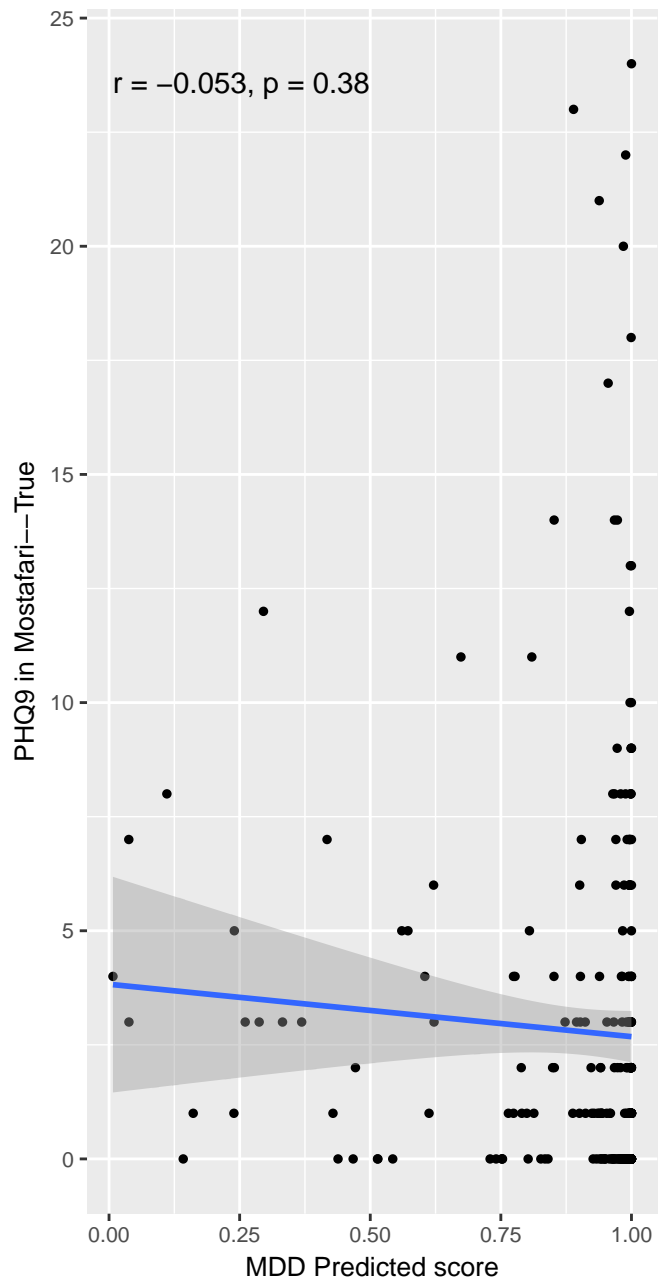Train on MDD of batch 4
 Test on batch 3 and Mostafavi
 Prediction Model on MDD of Batch 3 and Mostafavi:
 AUC are 0.536751435602953 0.420314540396298 respectively

MDD Predicted score vs PHQ9 by ElasticNe   MDD Predicted score vs PHQ9 by ElasticNe

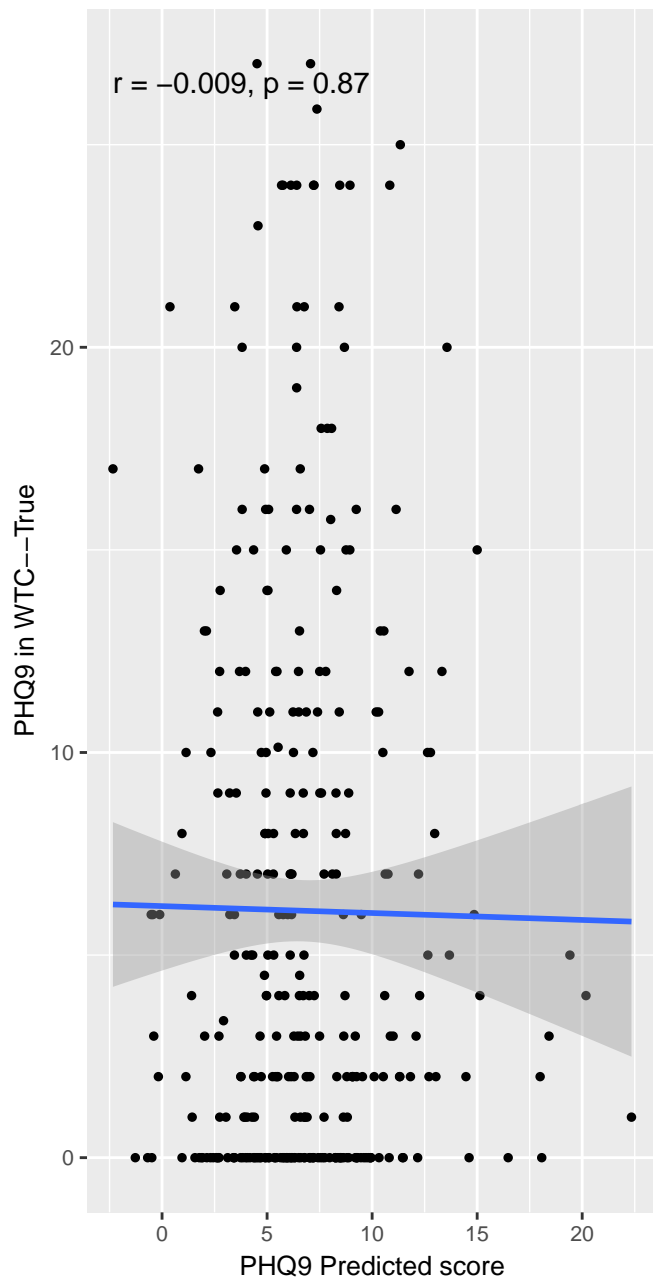r = 0.054, p = 0.34

r = −0.053, p = 0.38

Train on PHQ9 of batch 4
 Test on batch 3 and Mostafavi
 Prediction Model on MDD of Batch 3 and Mostafavi:
 AUC are 0.53299711194448 0.43178334184977 respectively

PHQ9 Predicted score vs PHQ9 by ElasticN

PHQ9 Predicted score vs PHQ9 by ElasticN

r = −0.009, p = 0.87

r = −0.097, p = 0.11

PHQ9 in WTC––True

PHQ9 in Mostafari––True

PHQ9 Predicted score

PHQ9 Predicted score