Model 1002
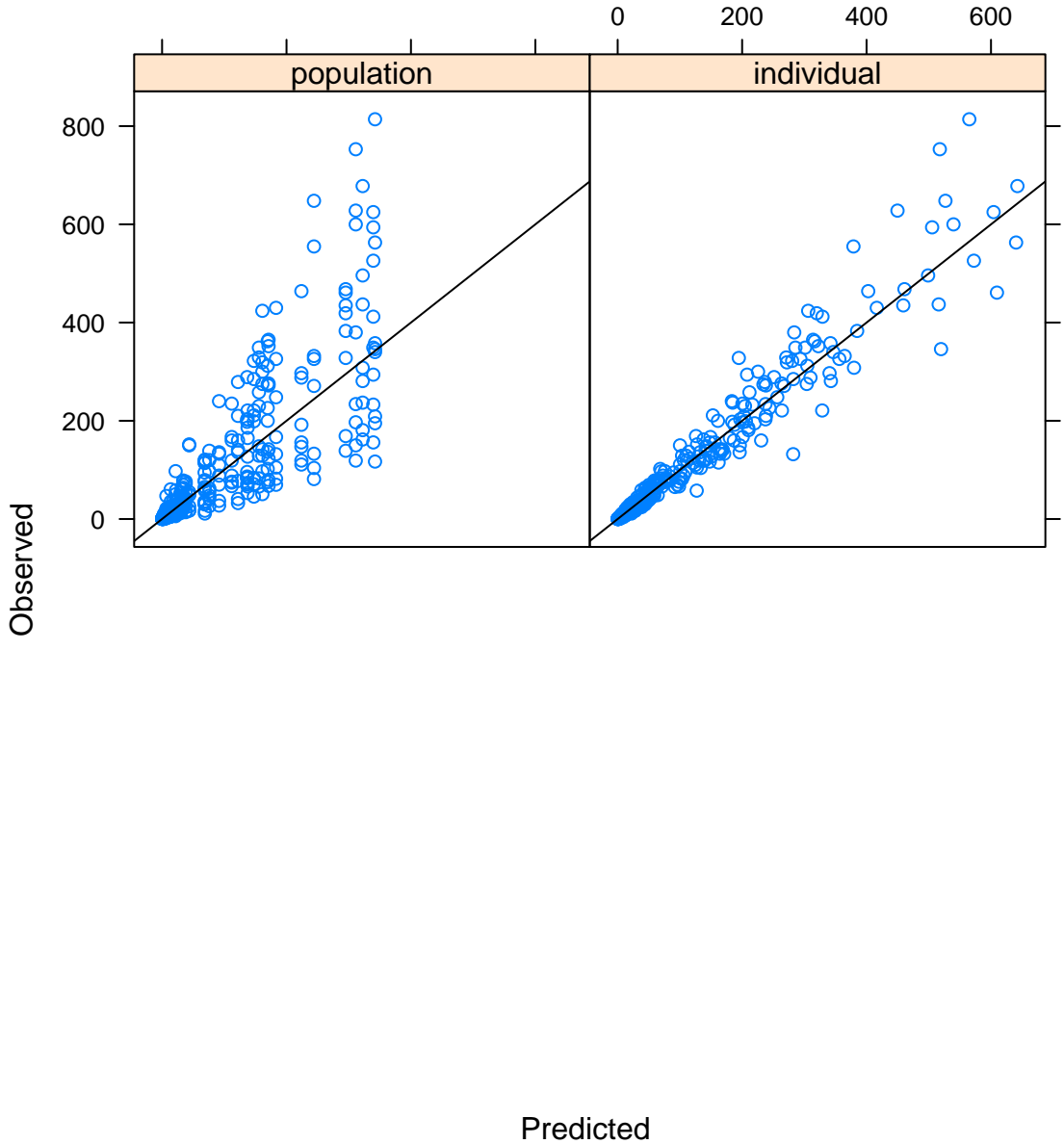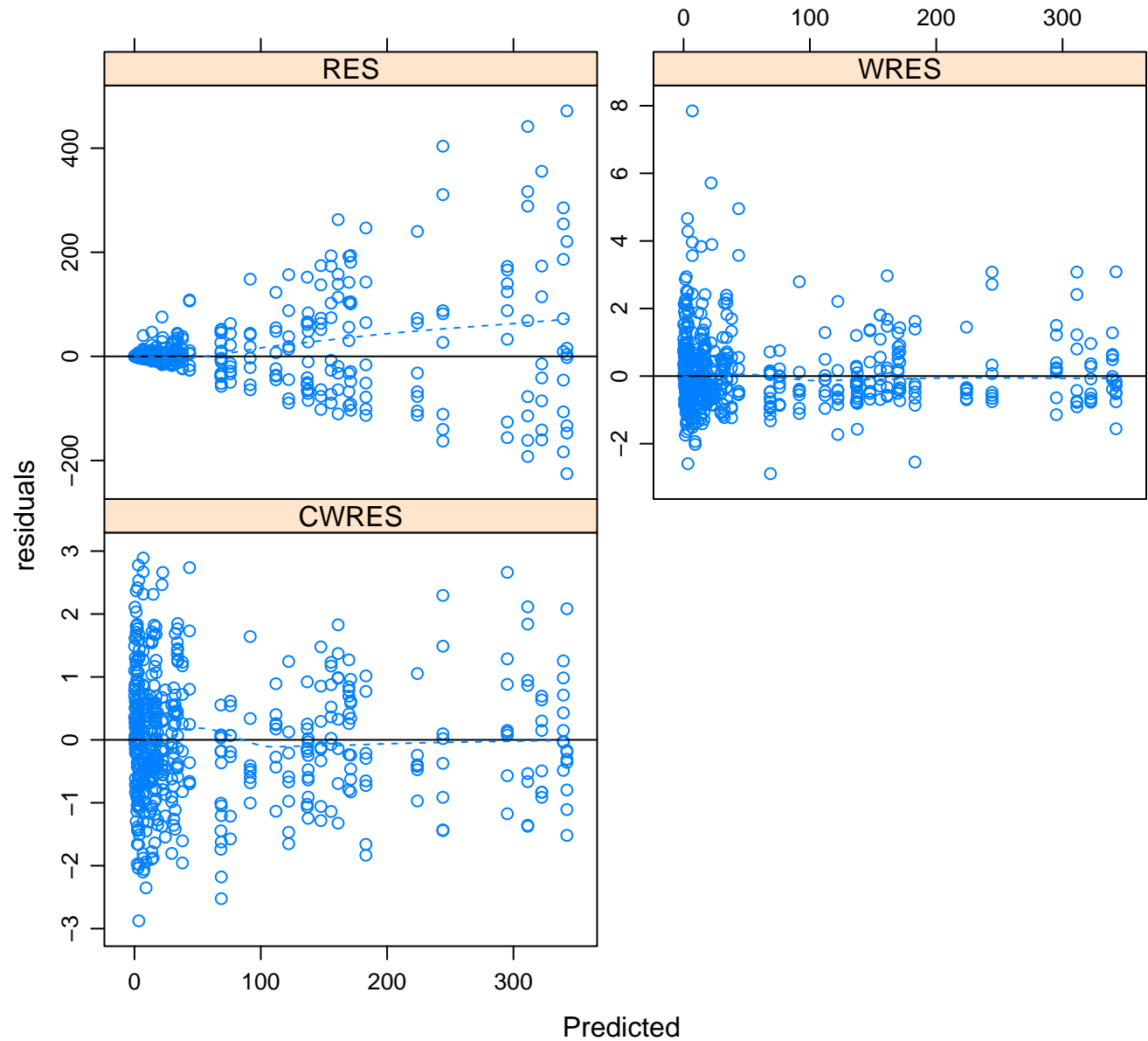**Observed vs. Predicted for all data**
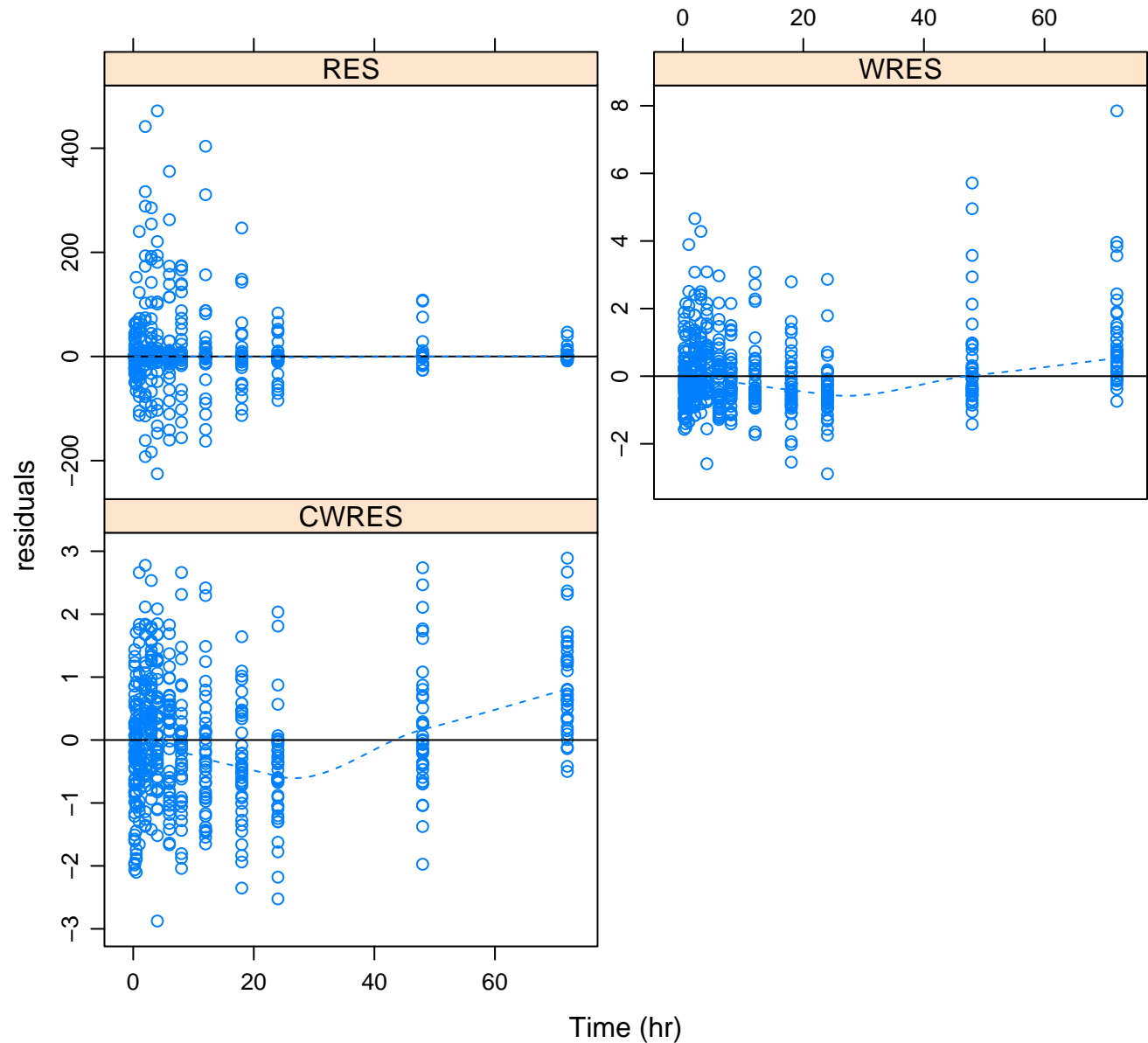
Model 1002
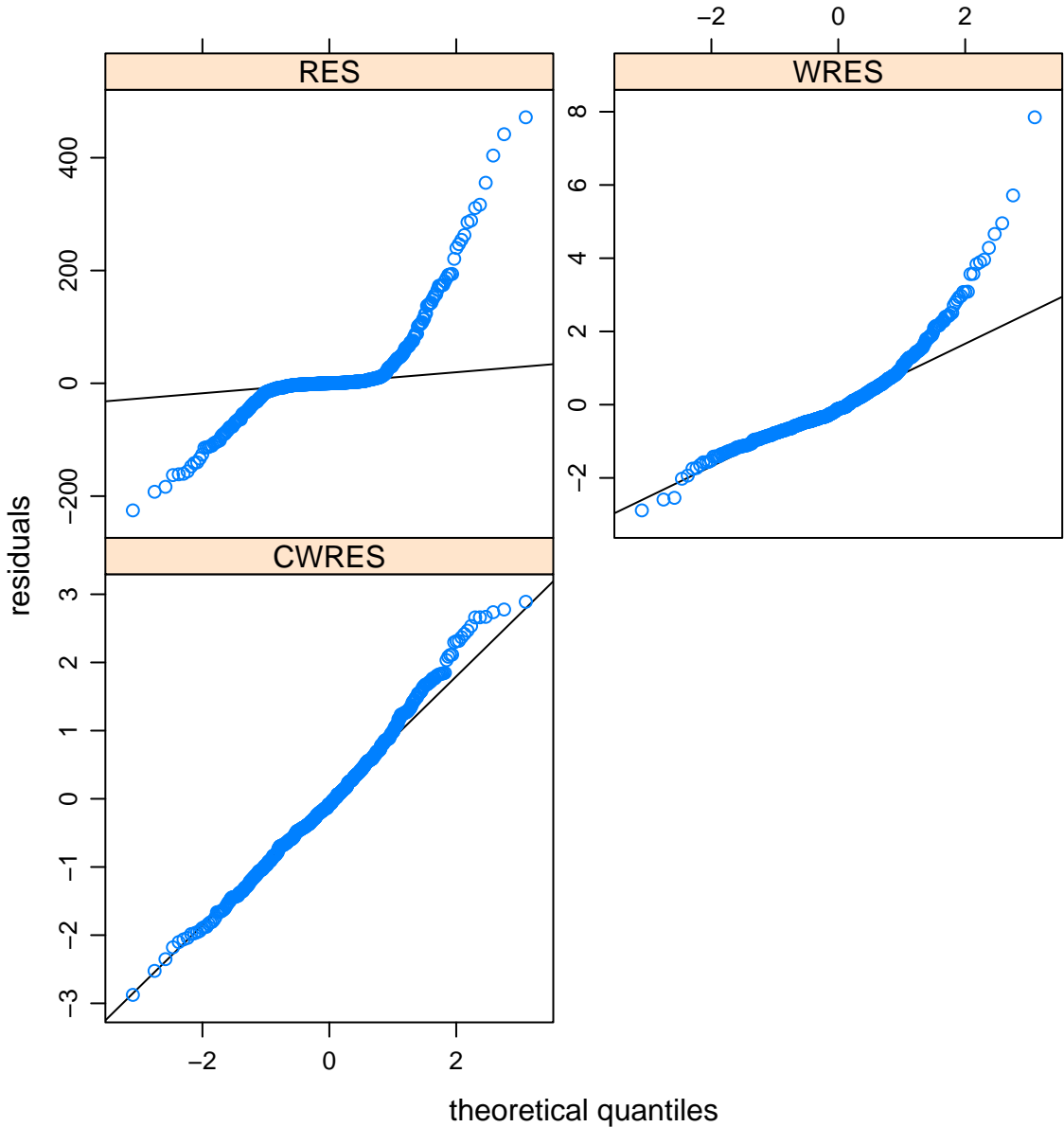**Residuals vs. Predicted for all data**

Model 1002
Residuals vs. Time for all data
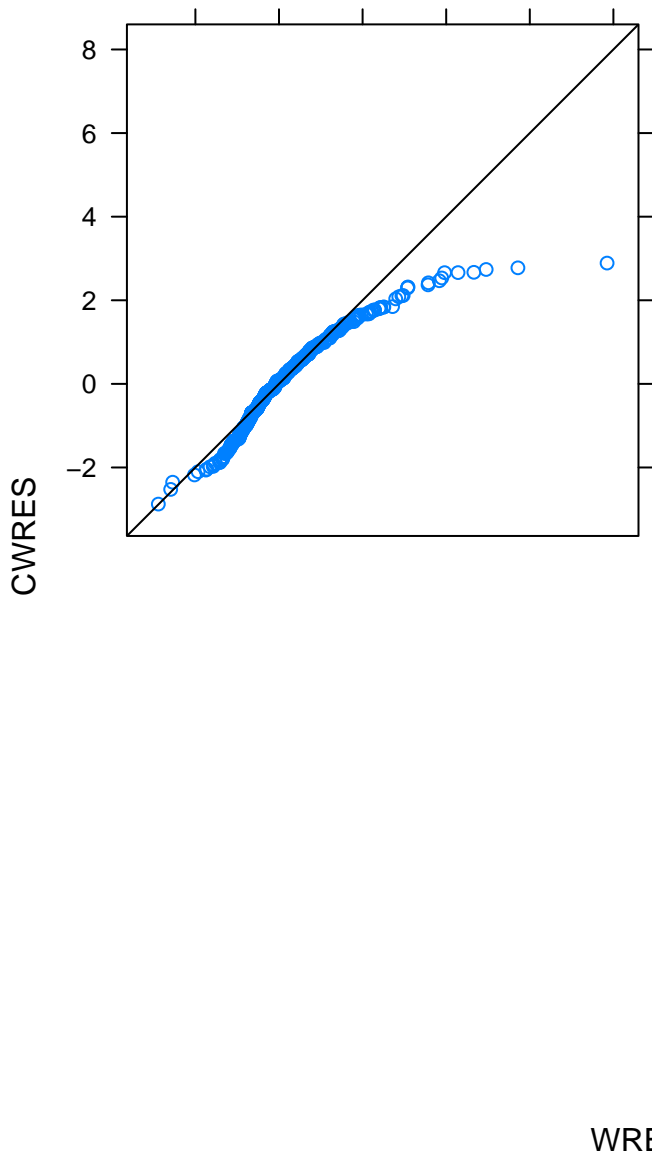
Model 1002
Normal Q–Q Plot Residuals for all data

Model 1002
Q–Q Plot of CWRES vs. WRES for all data
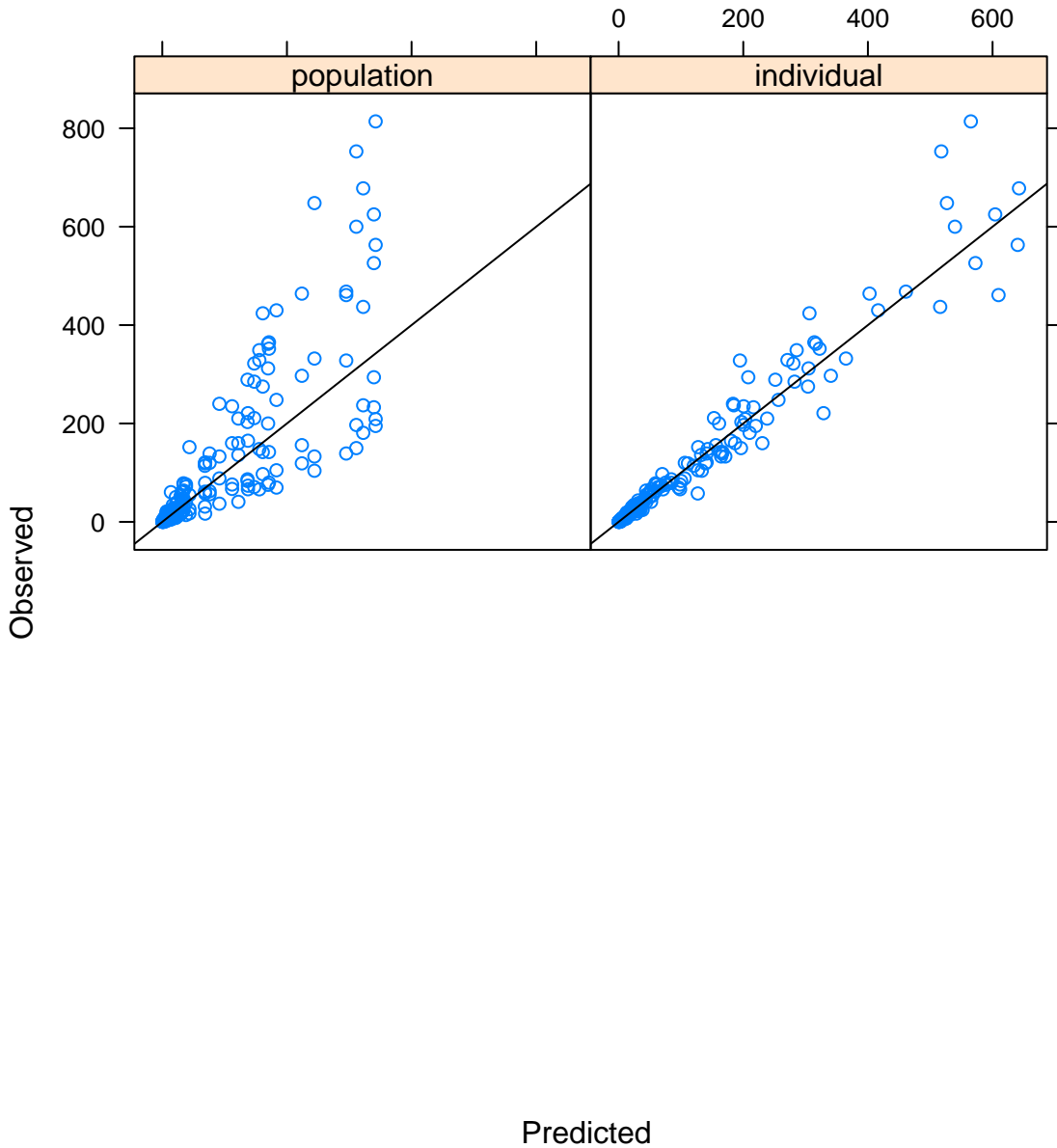
CWRES

WRES

Model 1002 Boxplots of Residuals for all data
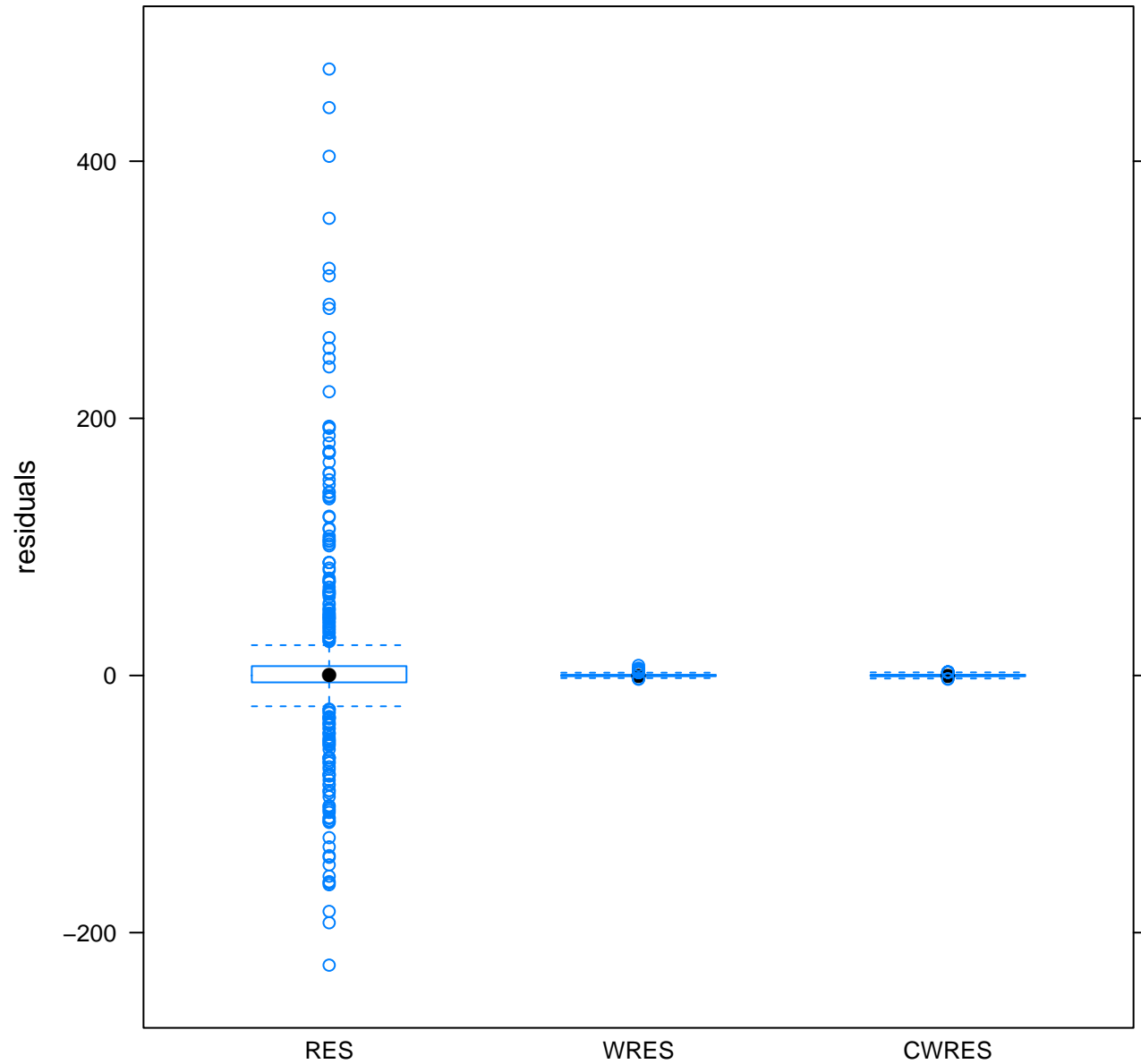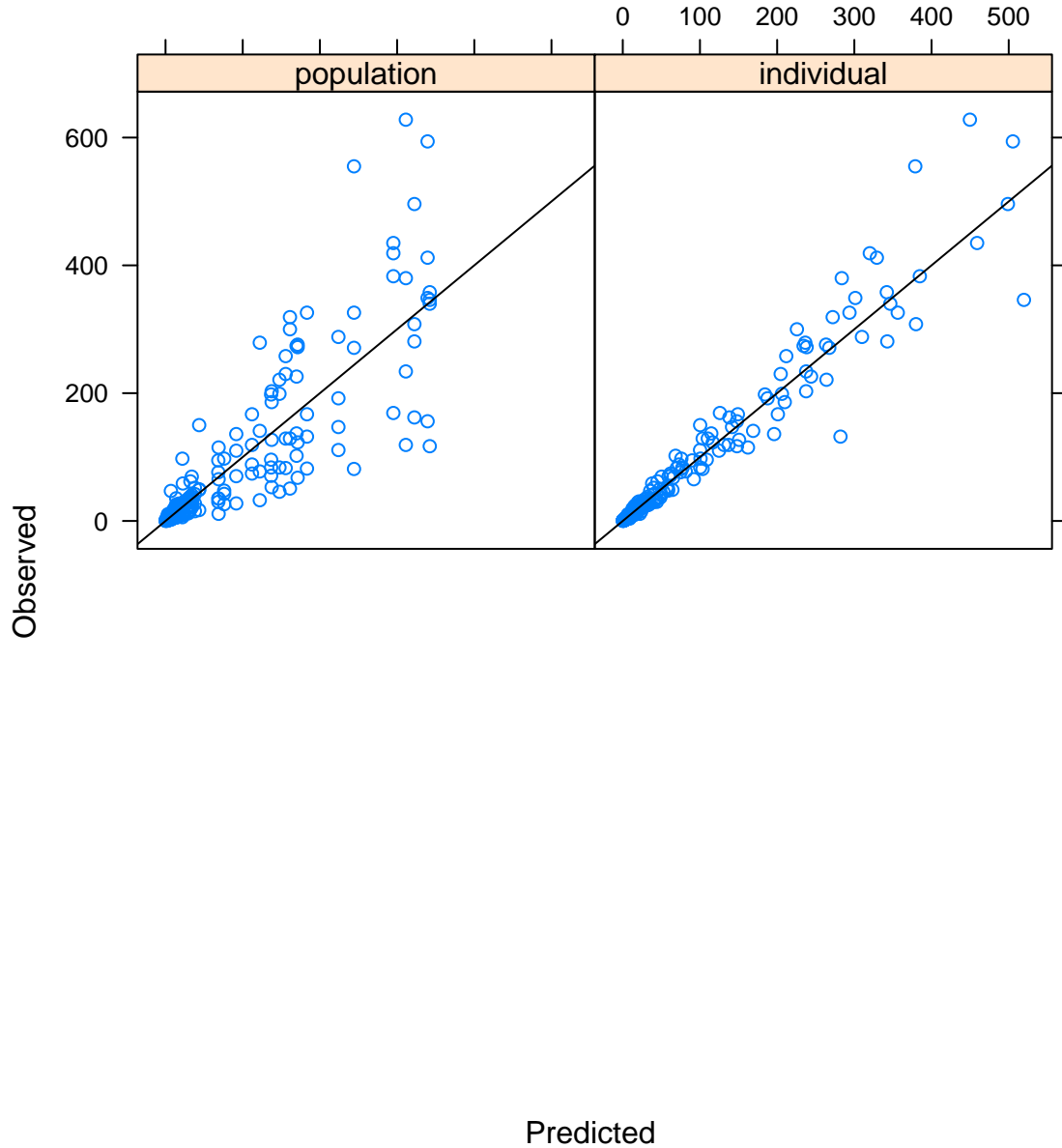
Model 1002
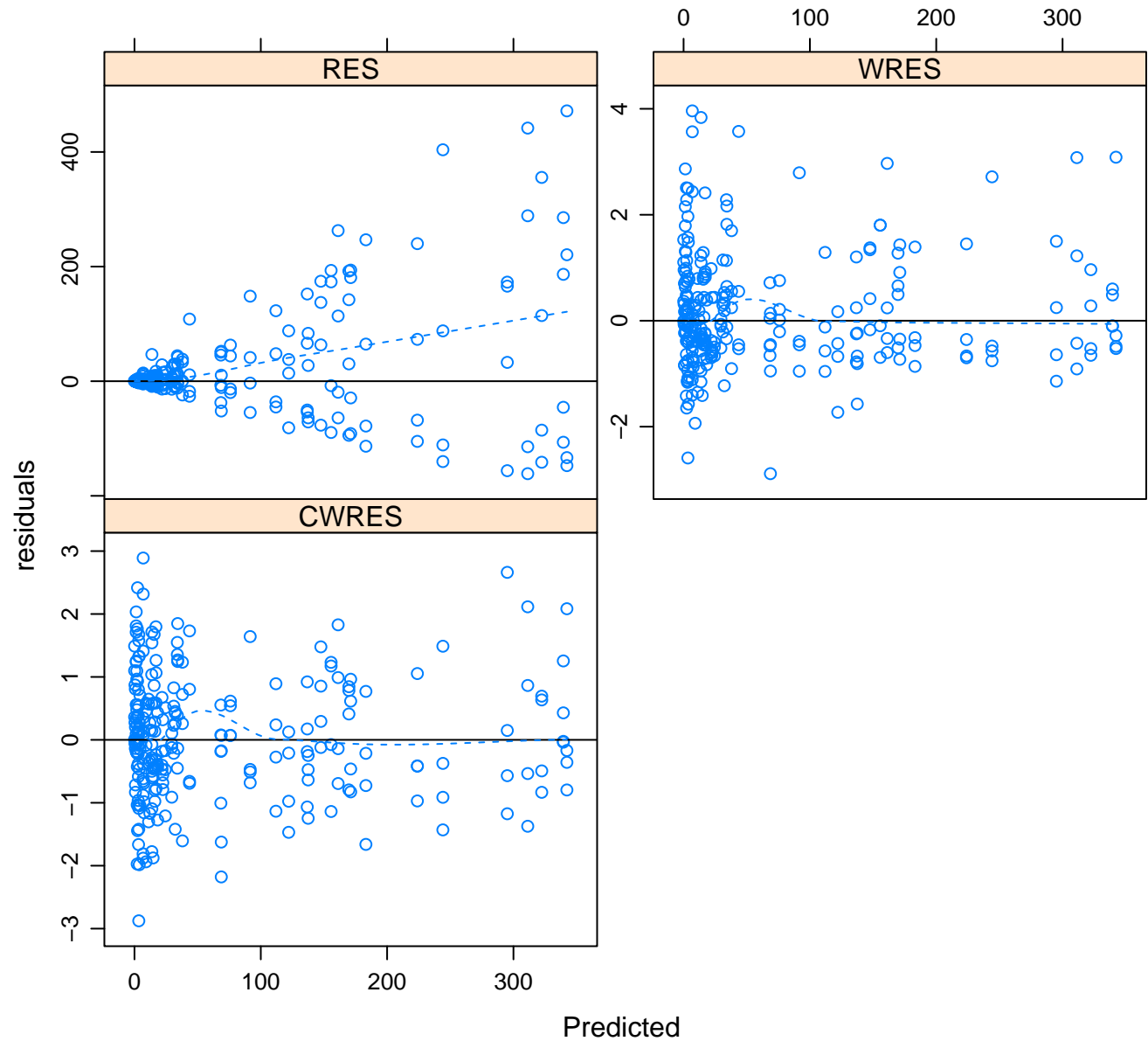**Observed vs. Predicted for female data**

Model 1002
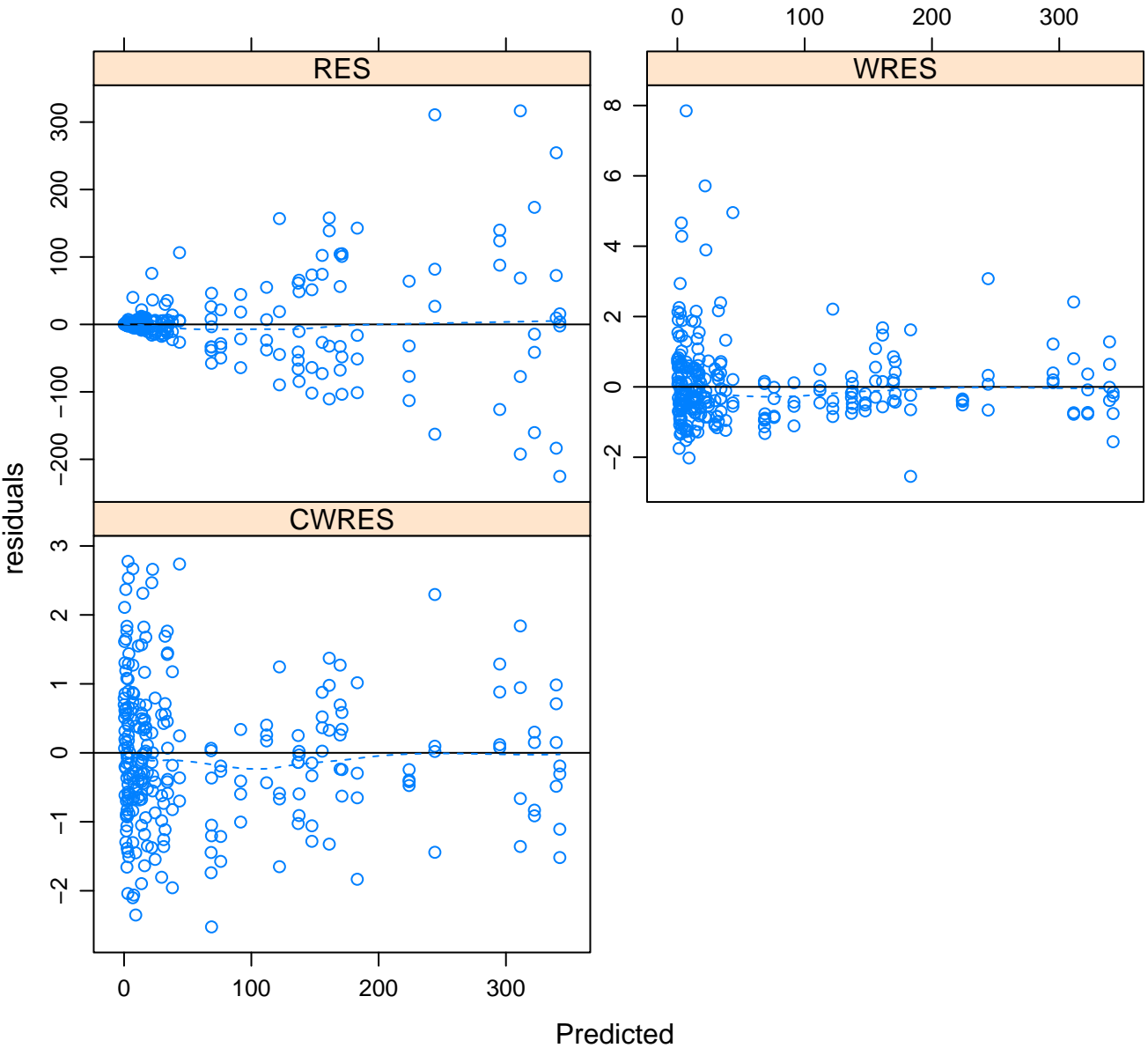**Observed vs. Predicted for male data**

Model 1002
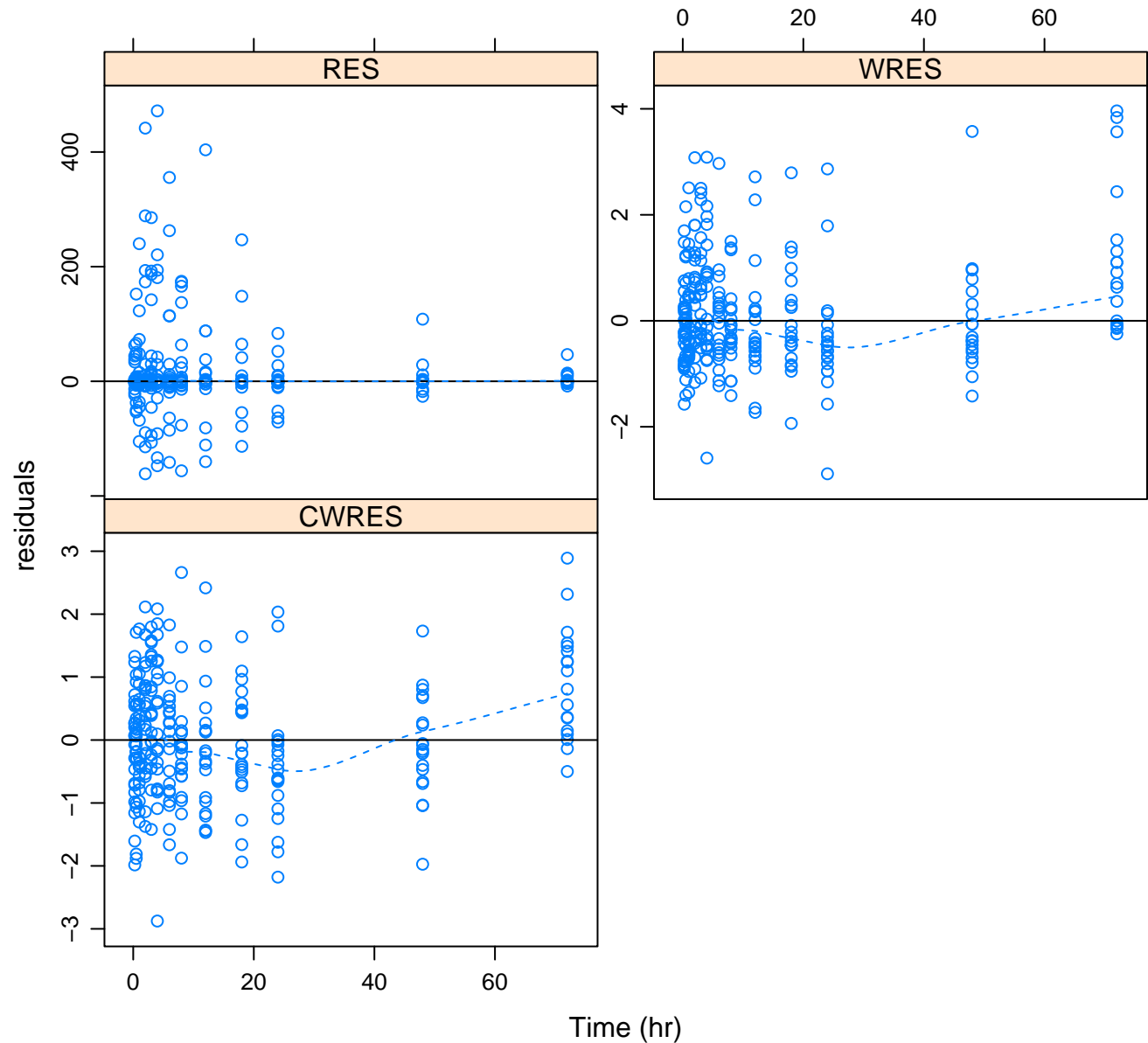**Residuals vs. Predicted for female data**
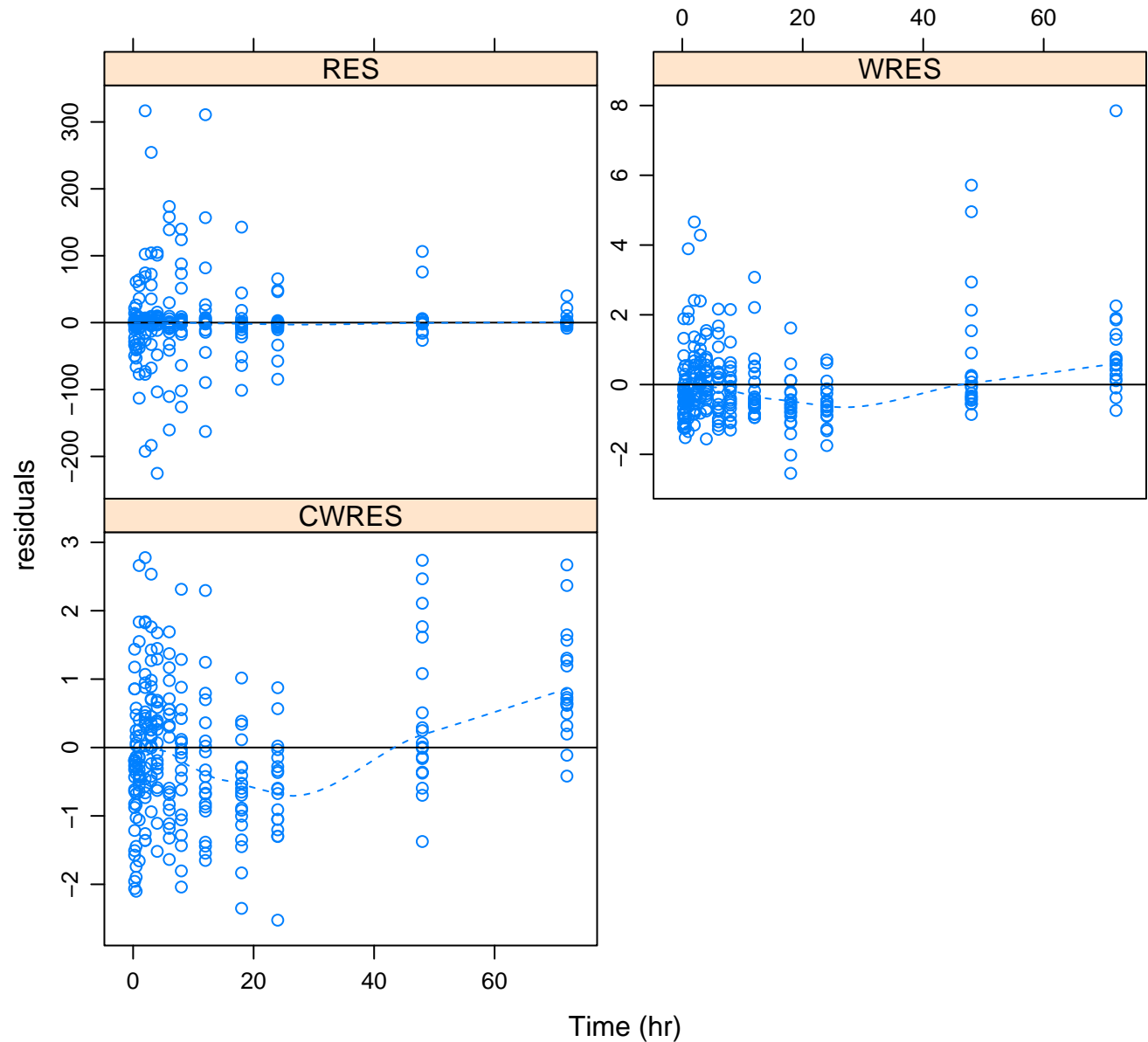
Model 1002
Residuals vs. Predicted for male data

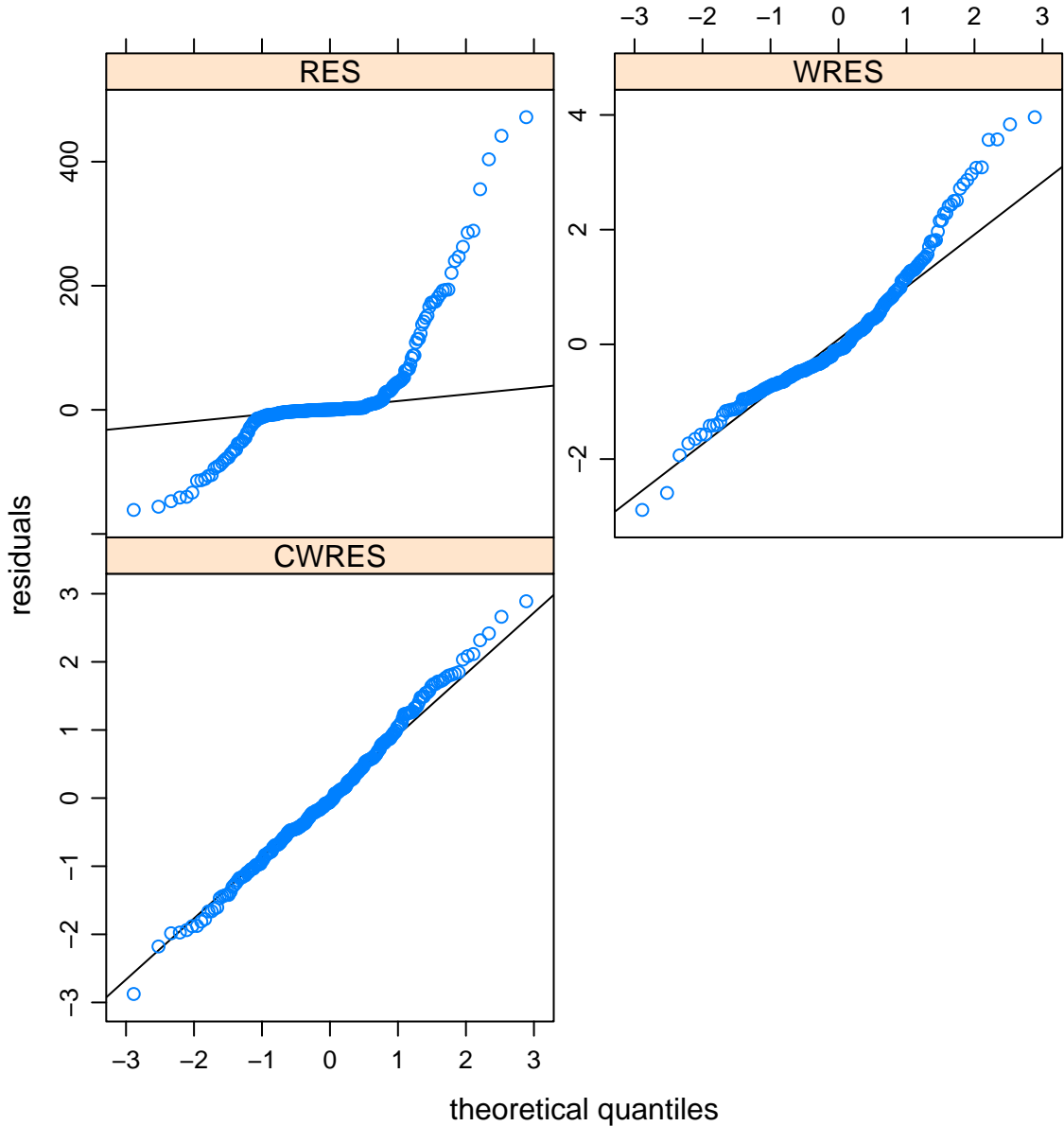**Model 1002**
Residuals vs. Time for female data

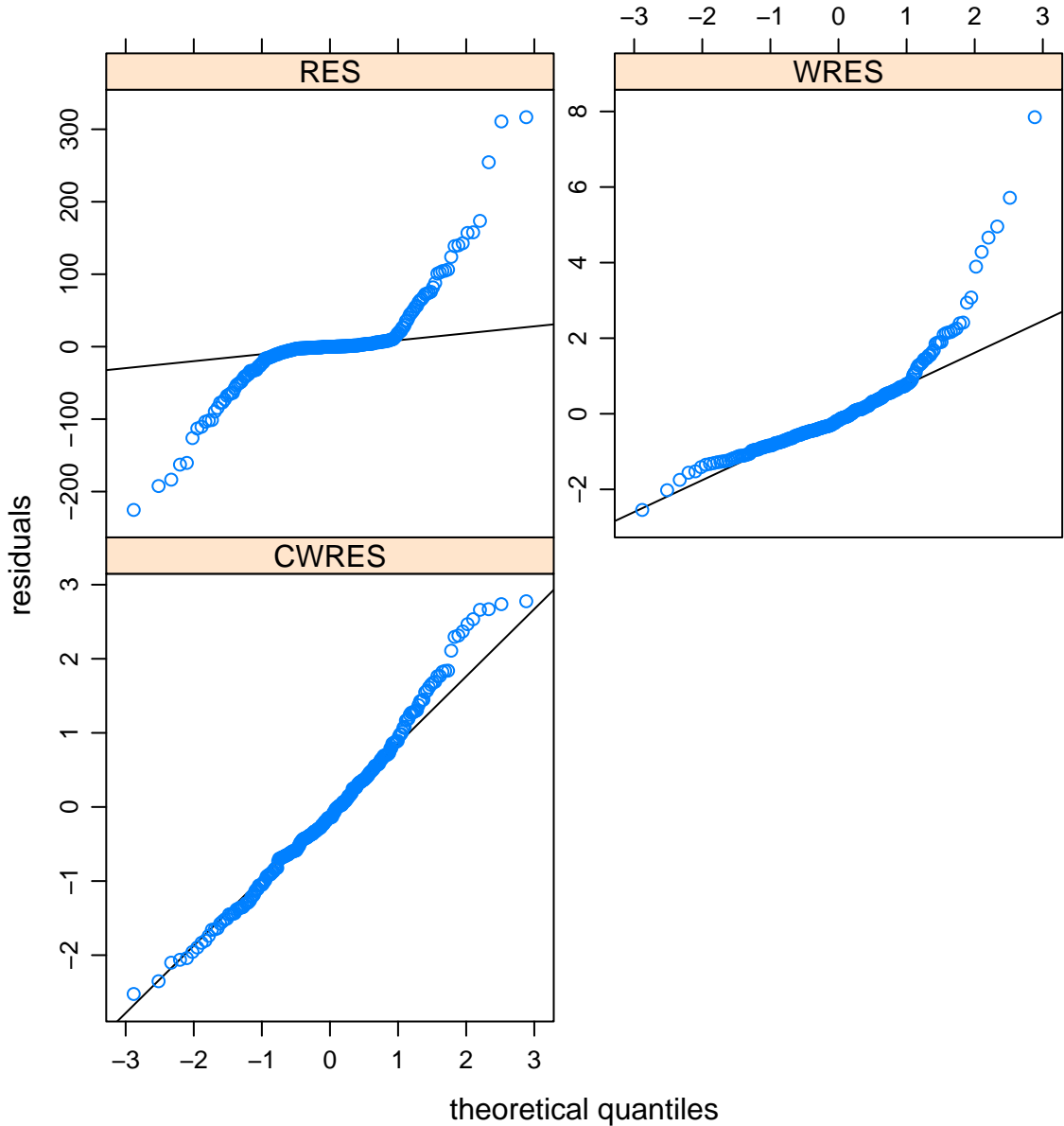**Model 1002**
Residuals vs. Time for male data

Model 1002
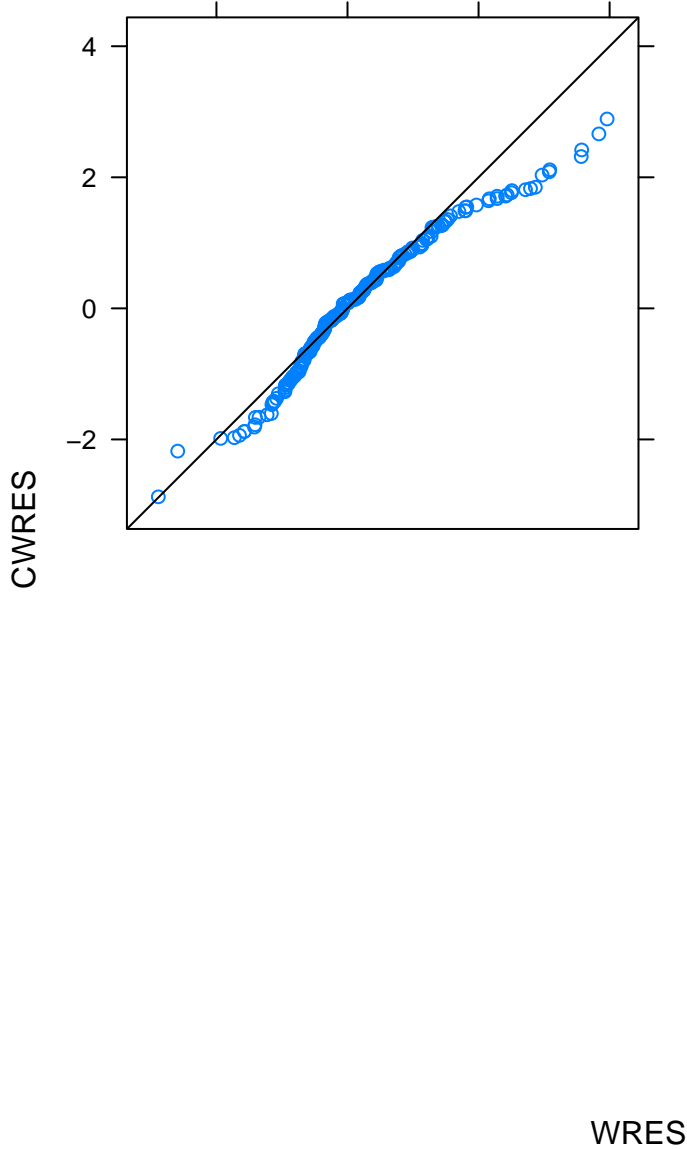**Normal Q–Q Plot Residuals for female data**

Model 1002
Normal Q–Q Plot Residuals for male data

Model 1002
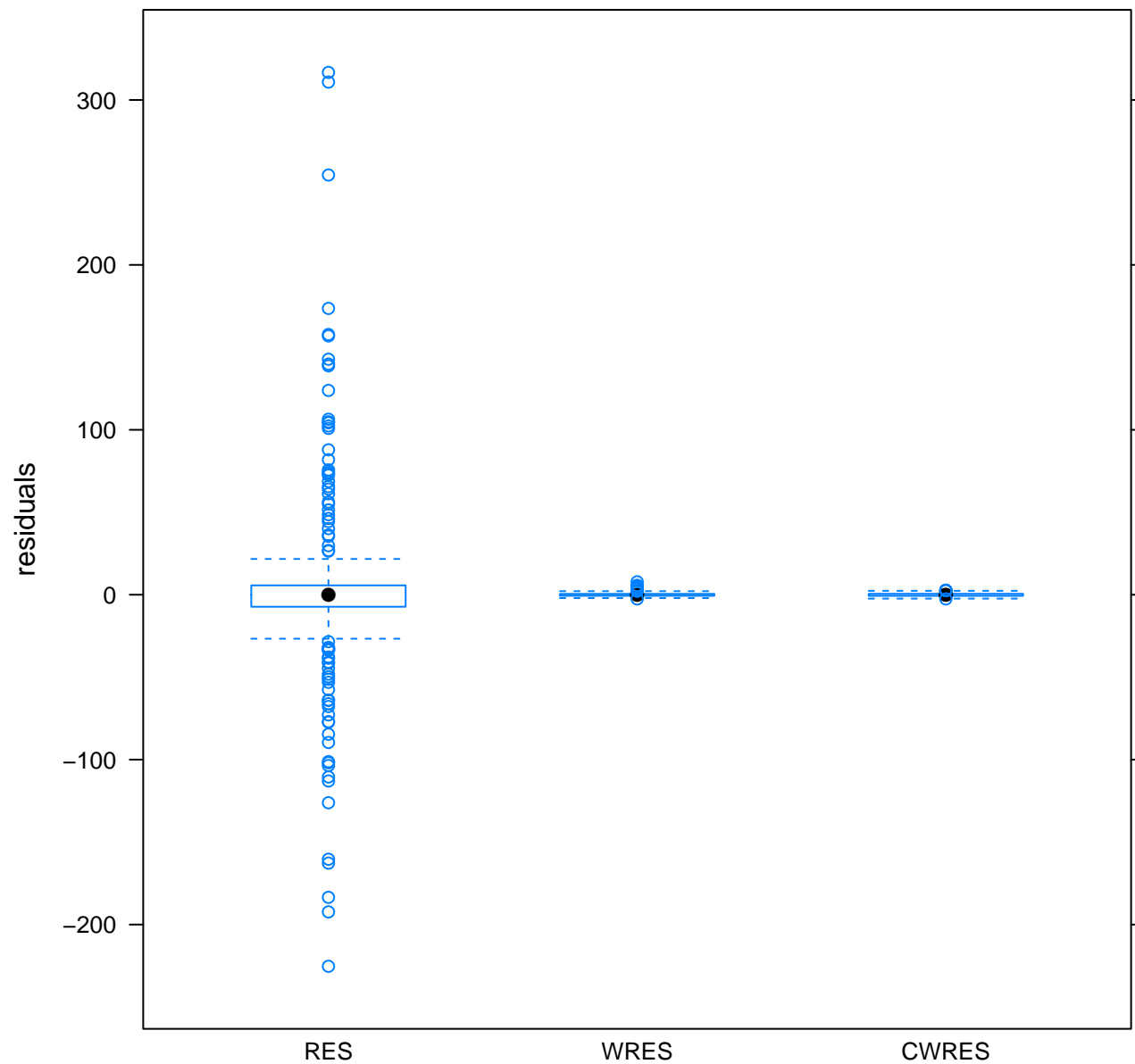**Q−Q Plot of CWRES vs. WRES for female data**

CWRES

WRES

Model 1002
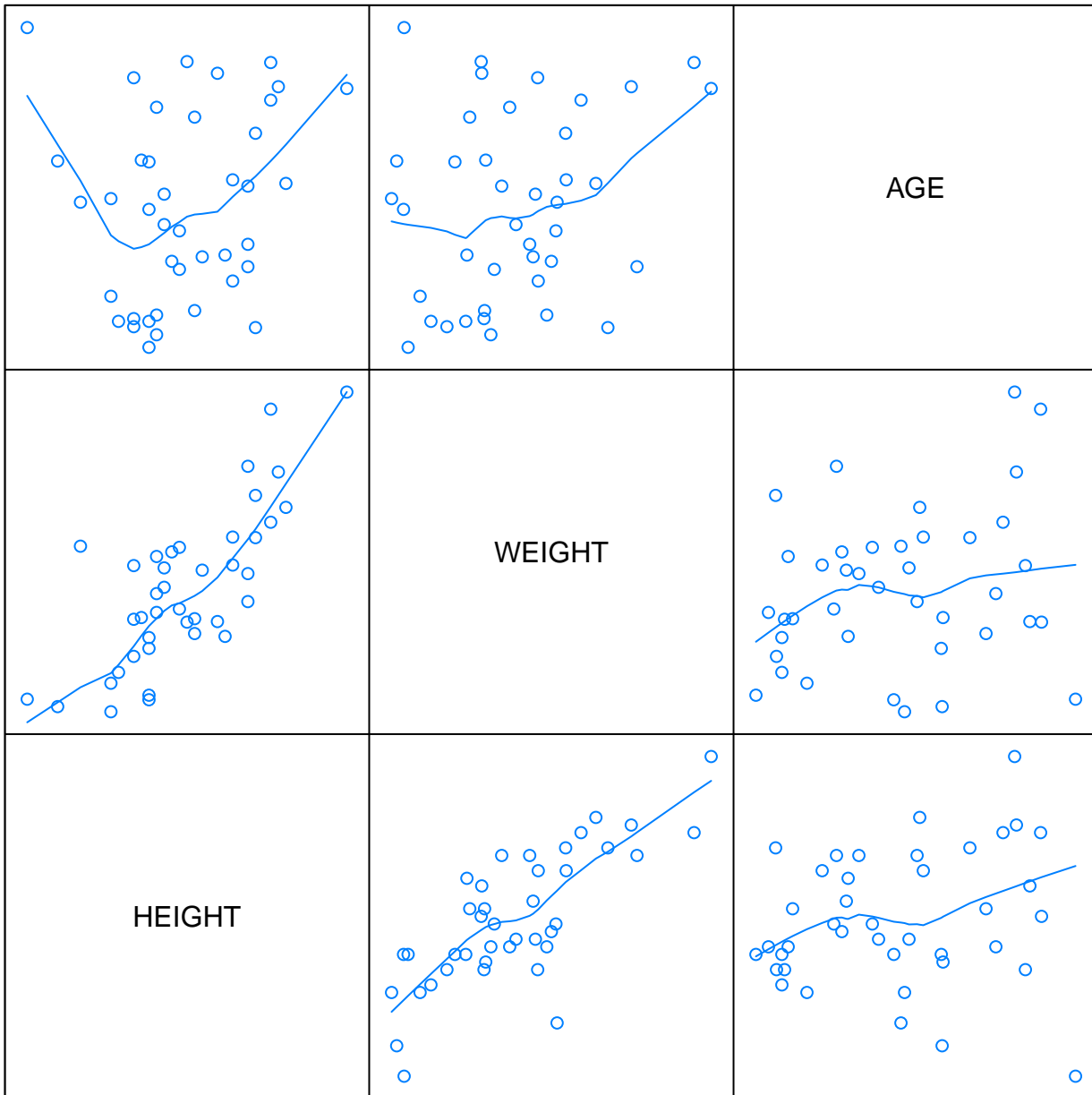**Q–Q Plot of CWRES vs. WRES for male data**
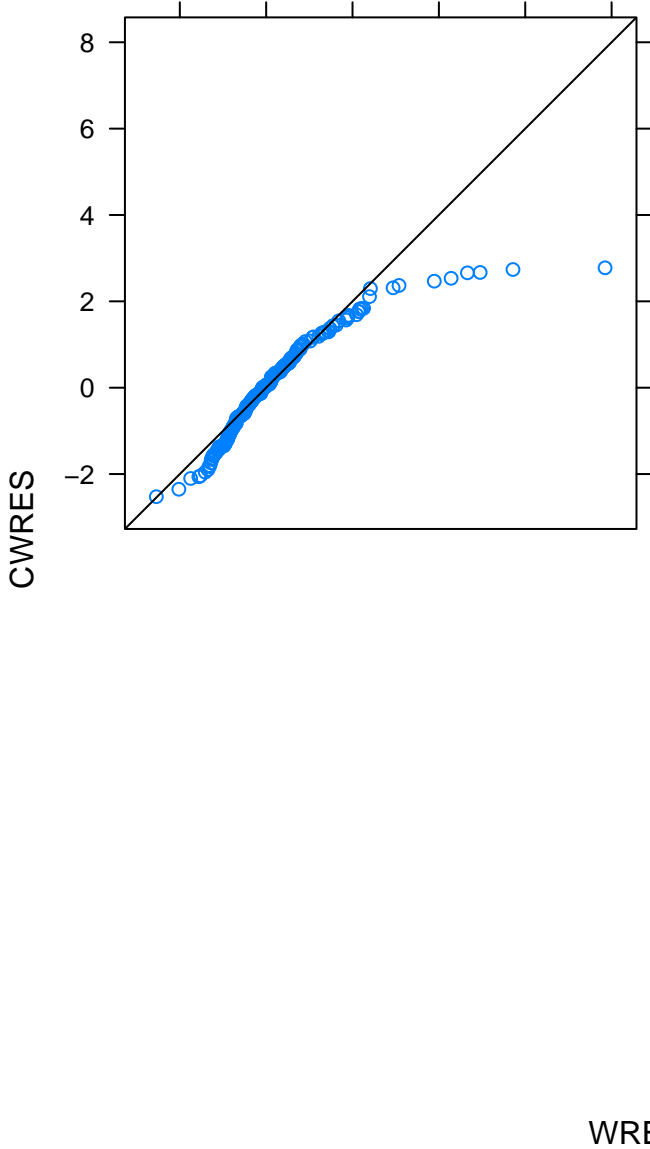
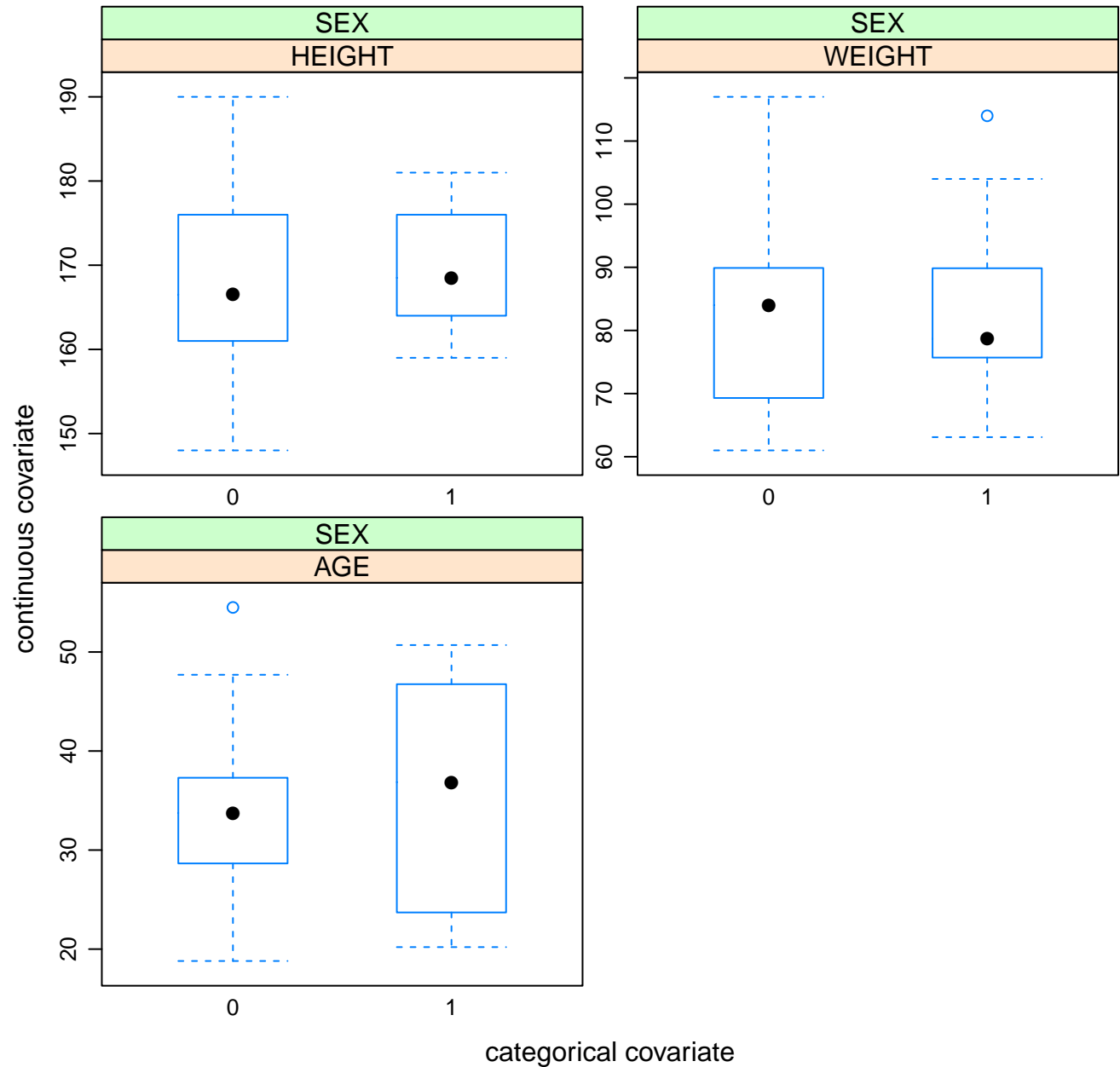**Model 1002 Boxplots of Residuals for female data**
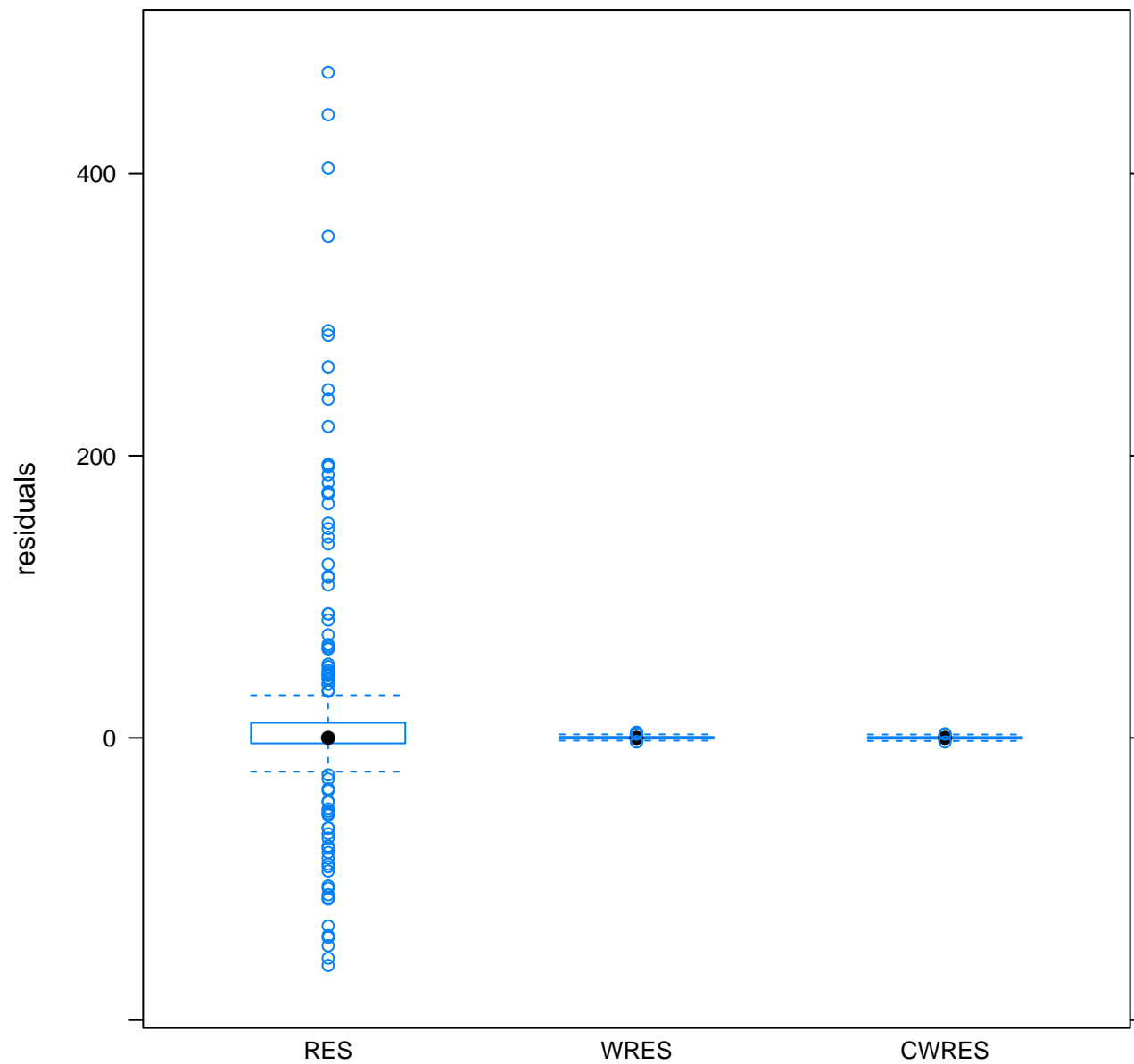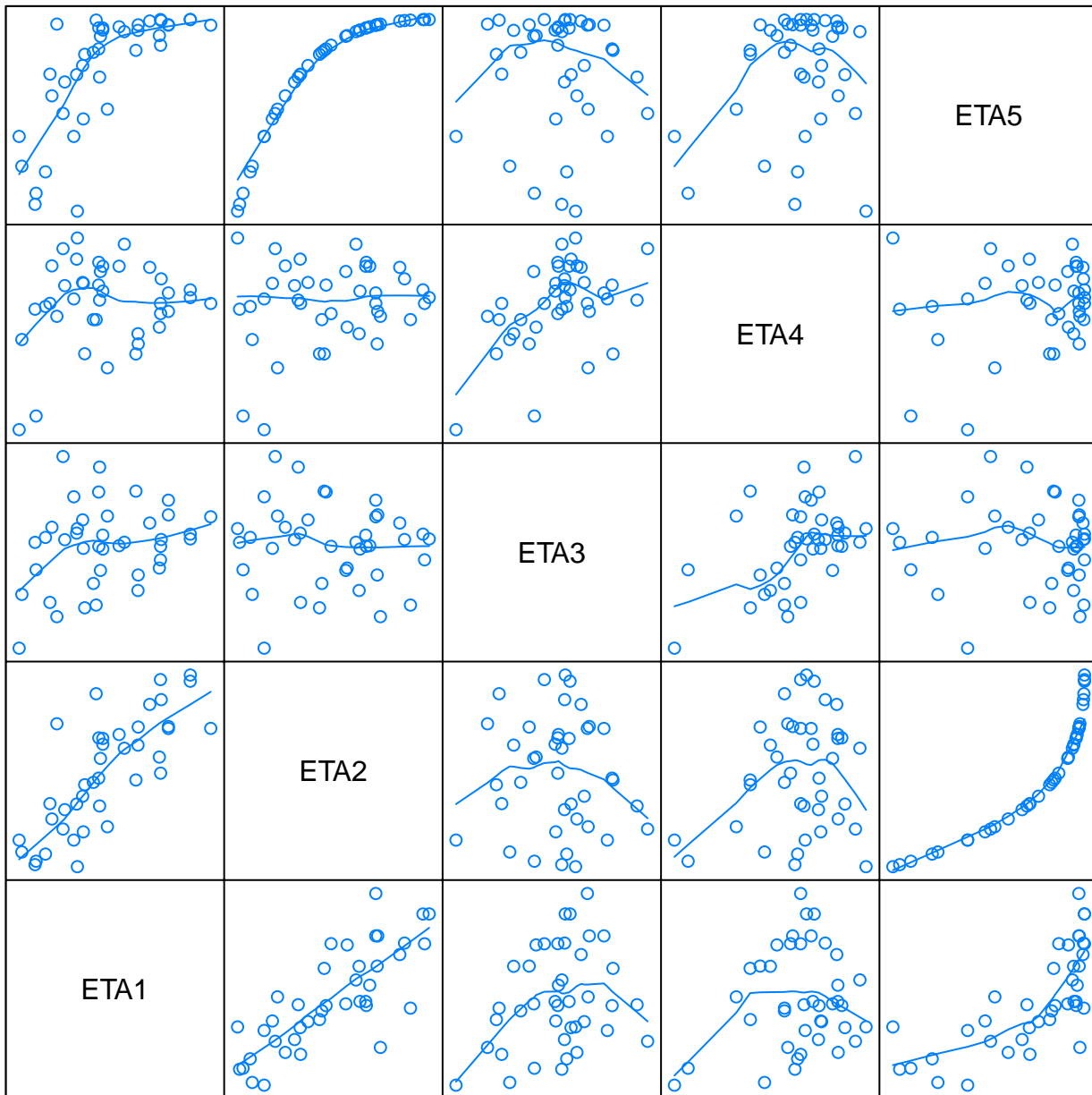
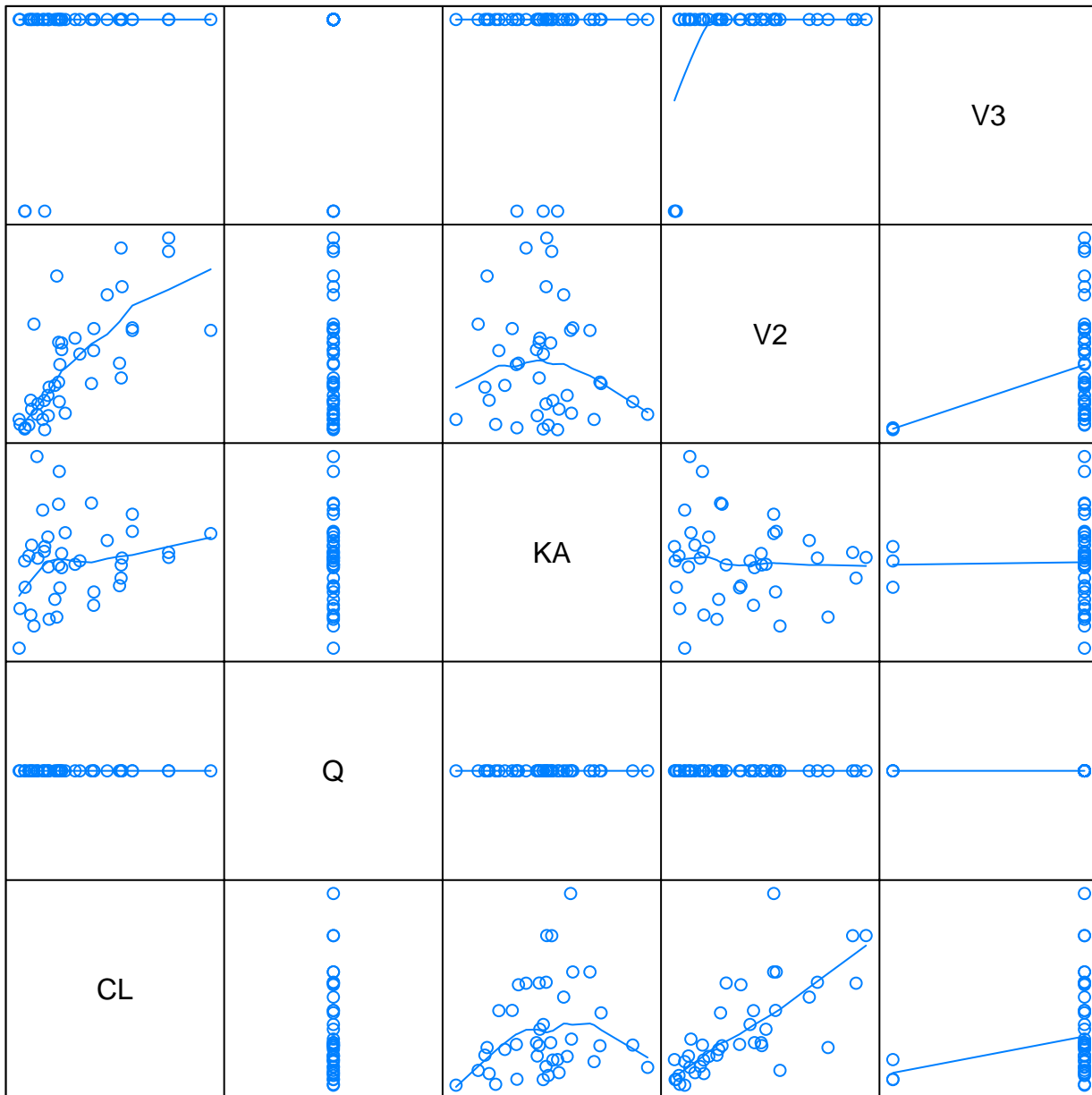**Model 1002 Boxplots of Residuals for male data**
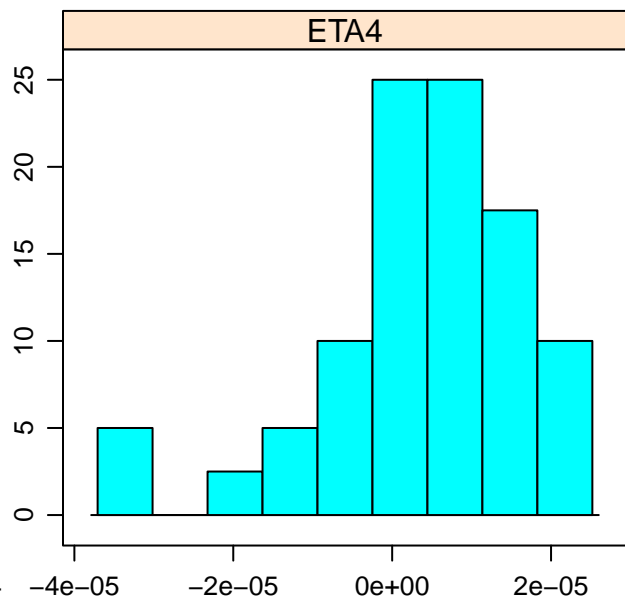
Covariate Scatterplots
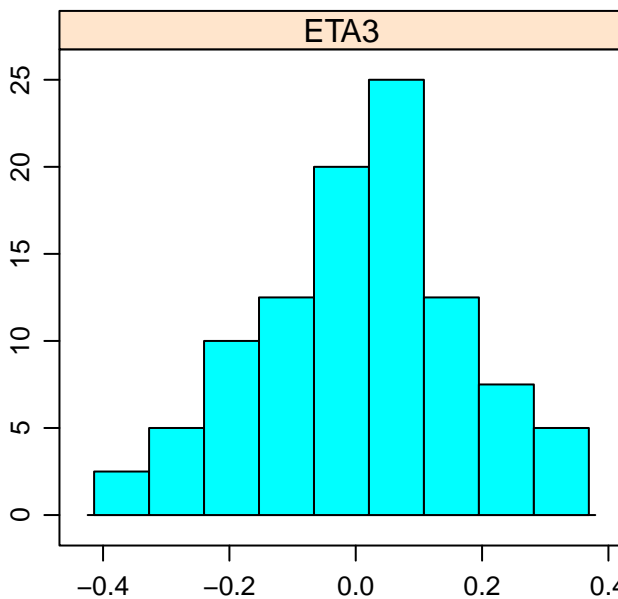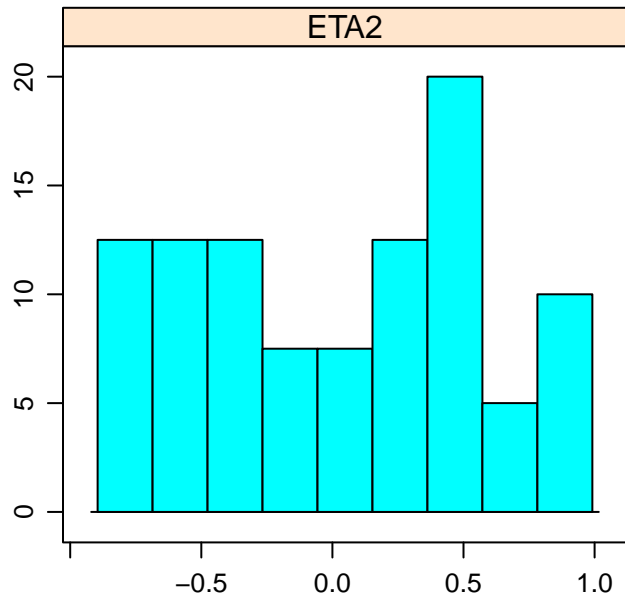
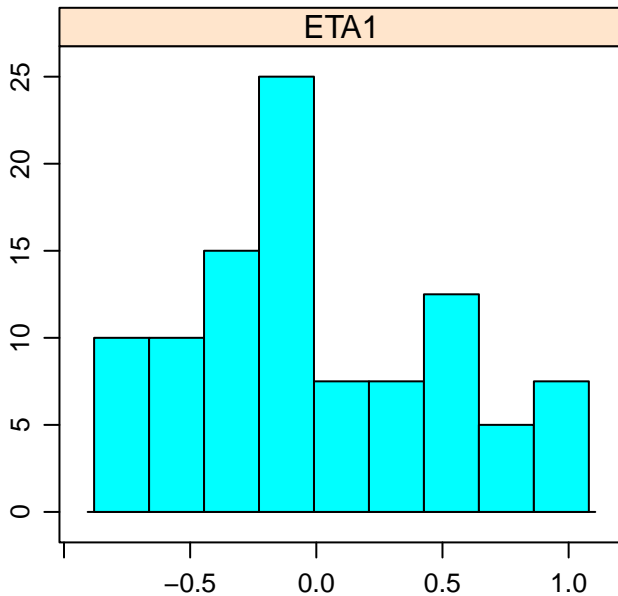**Continuous Covariates vs. Categorical Covariates**
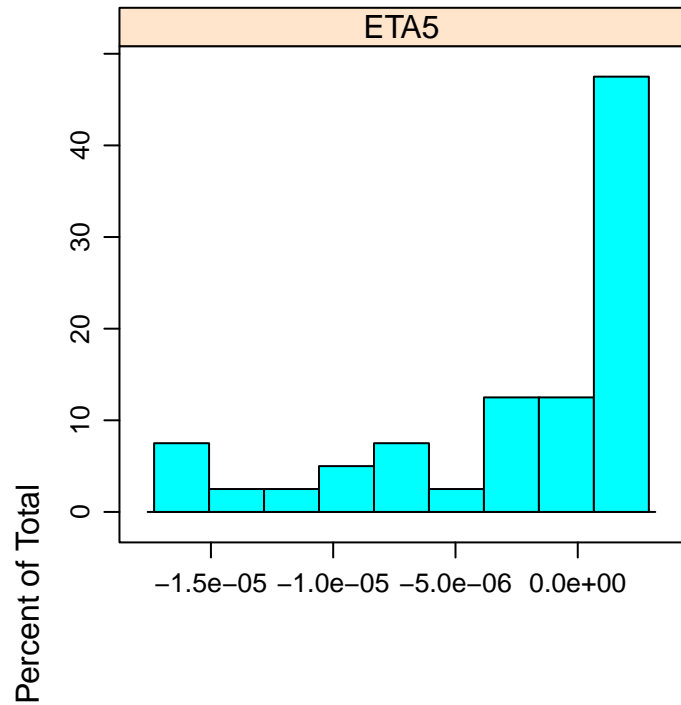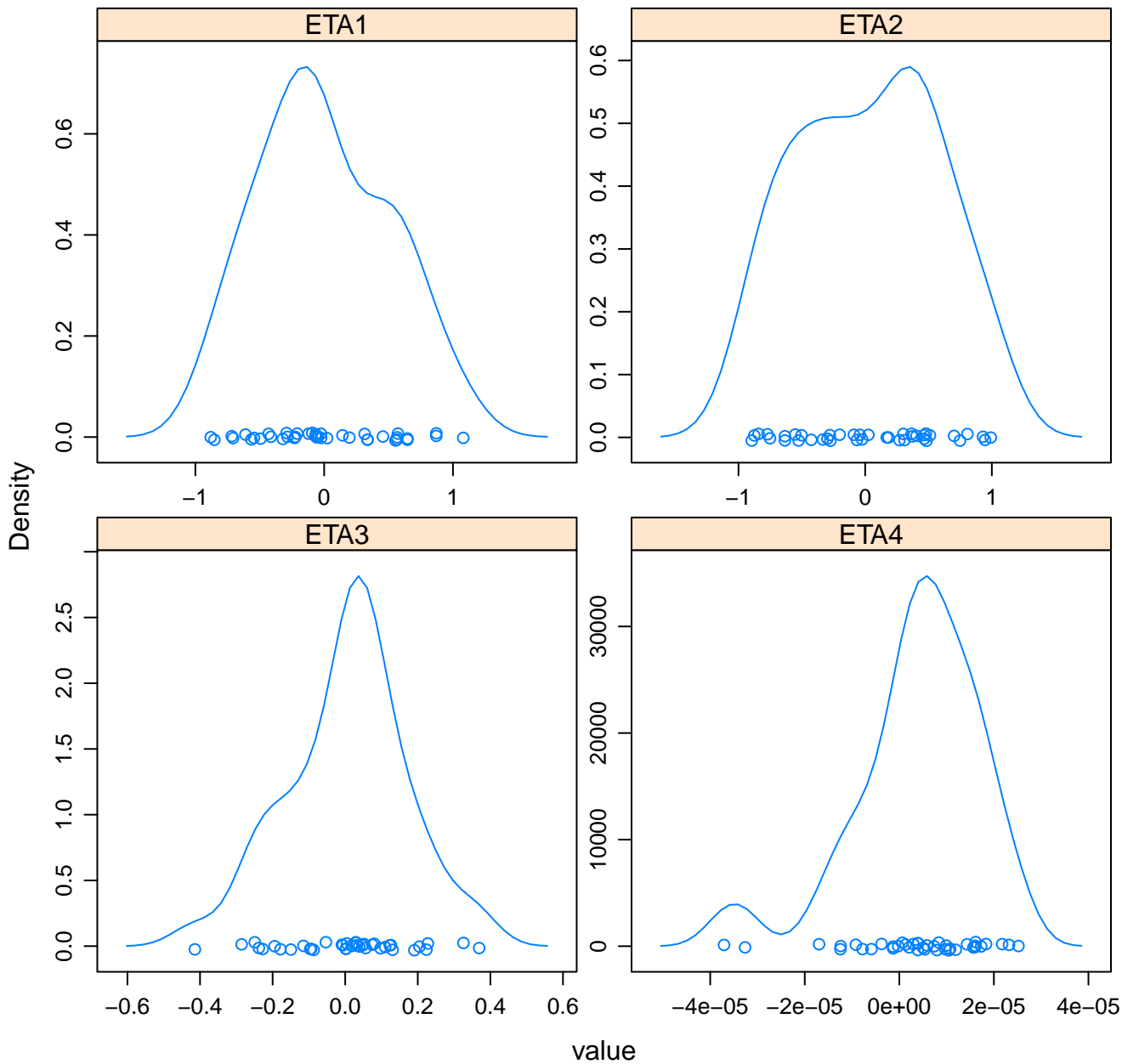
ETA Scatterplots
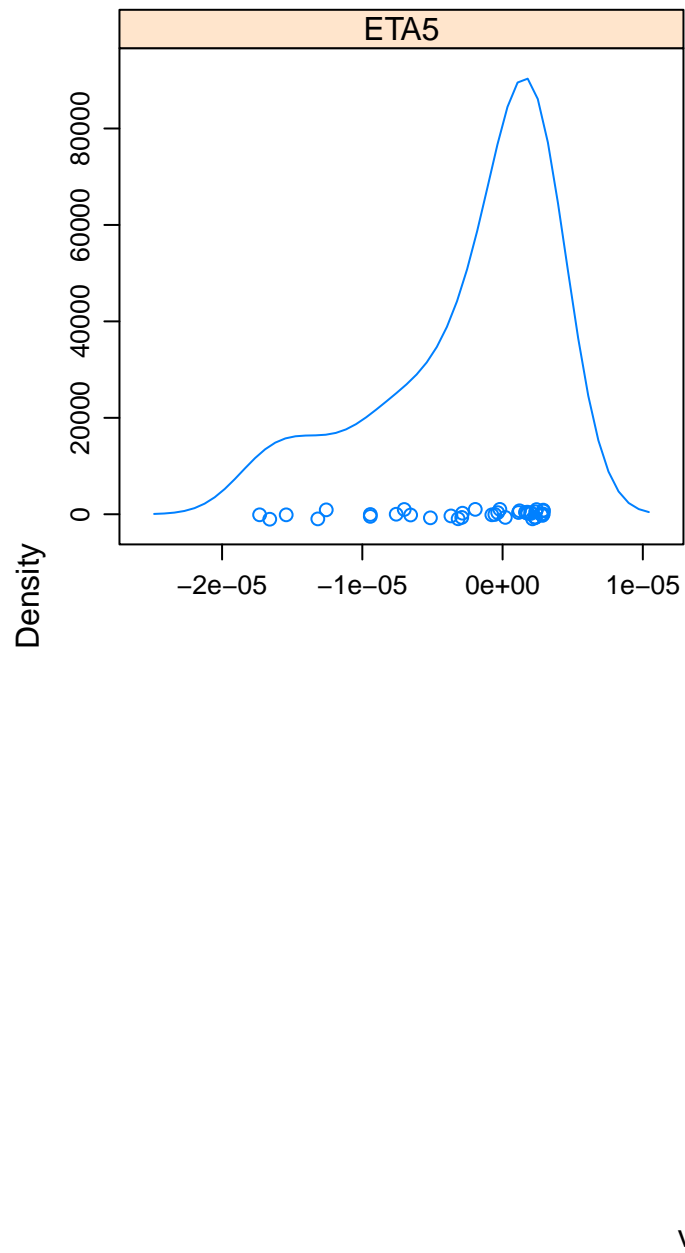
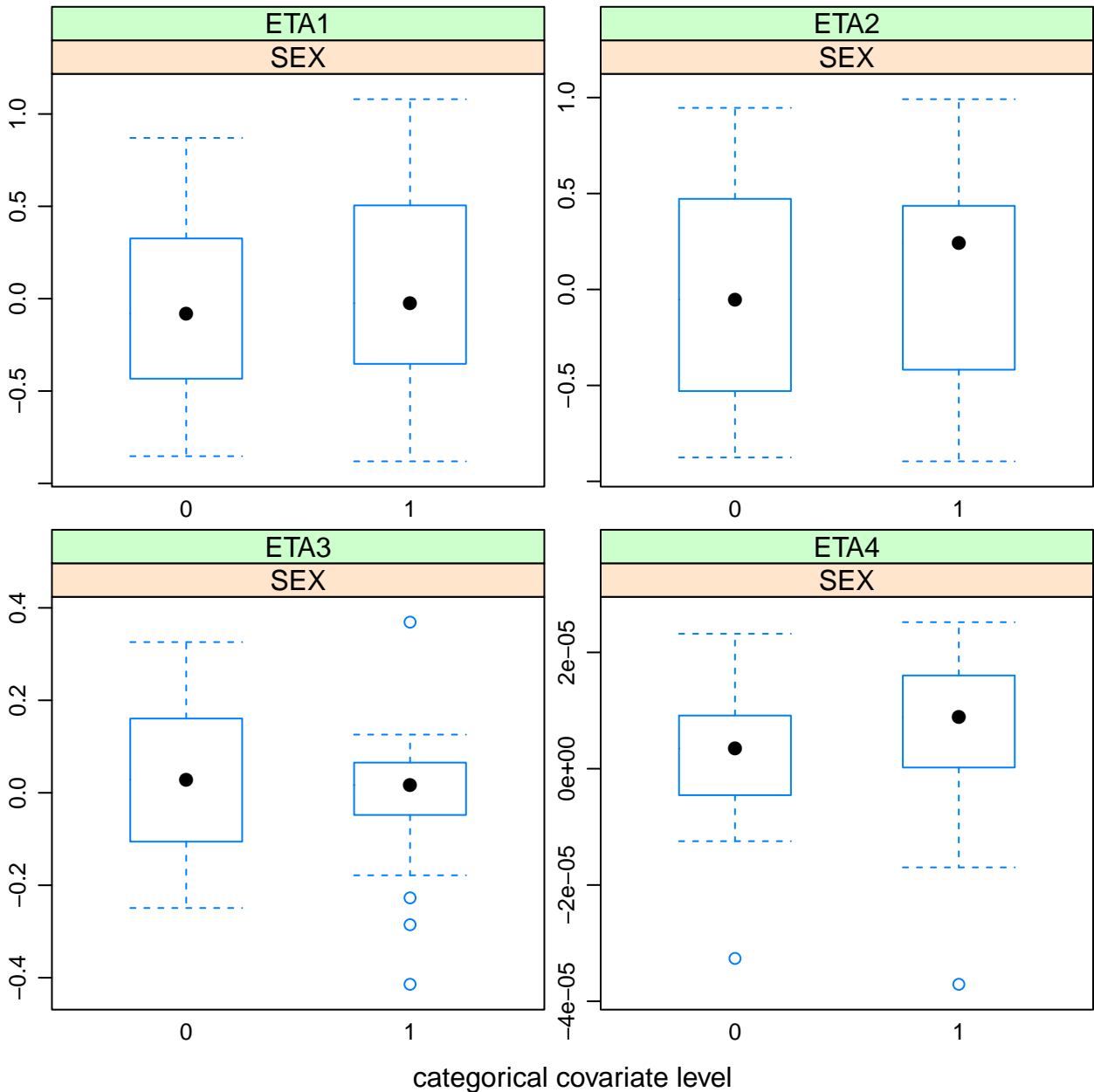Parameter Scatterplots
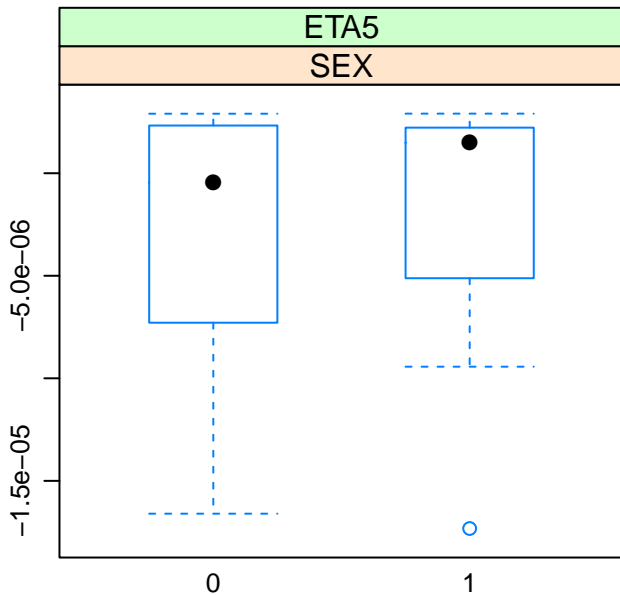
Histograms of Etas
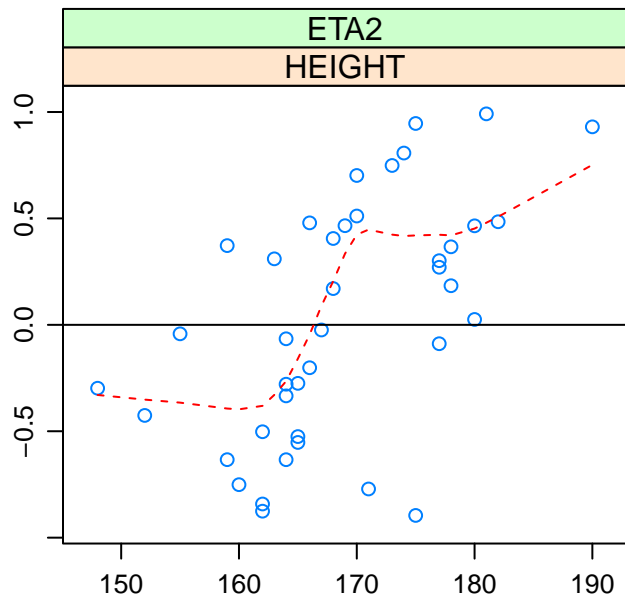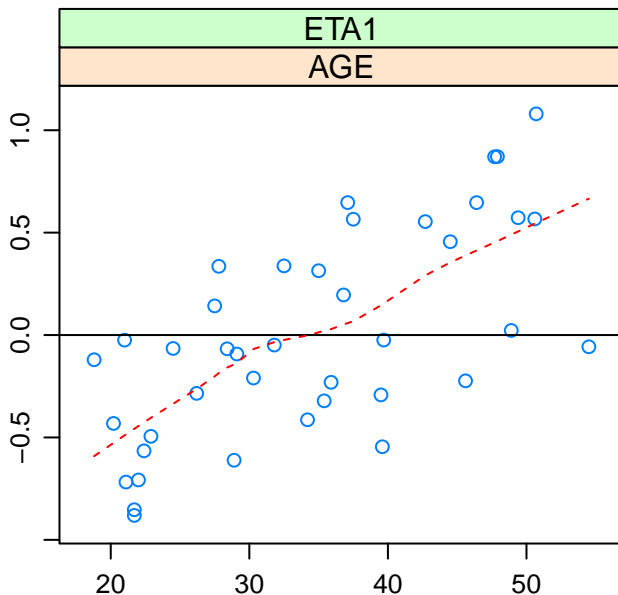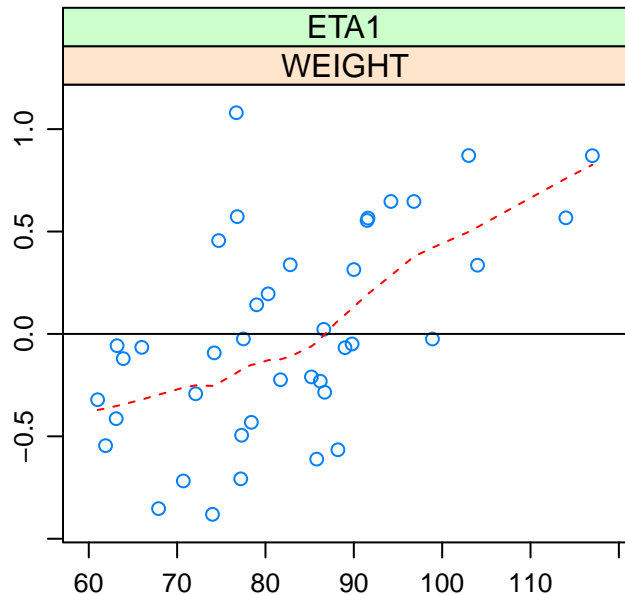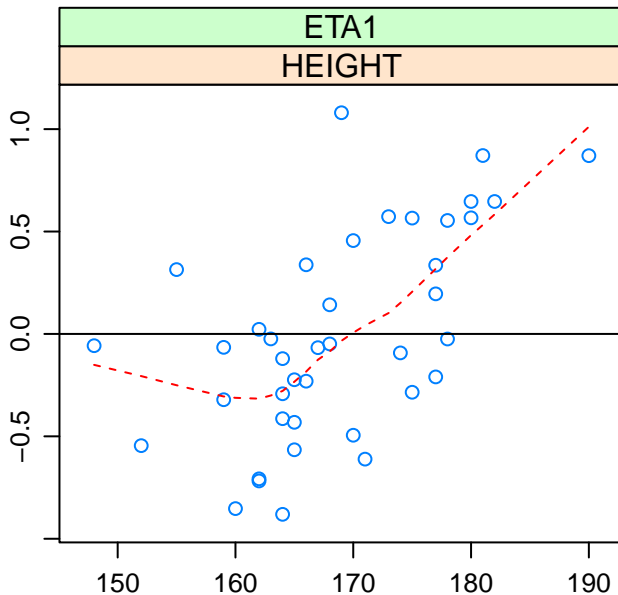
Histograms of Etas

Density of Etas

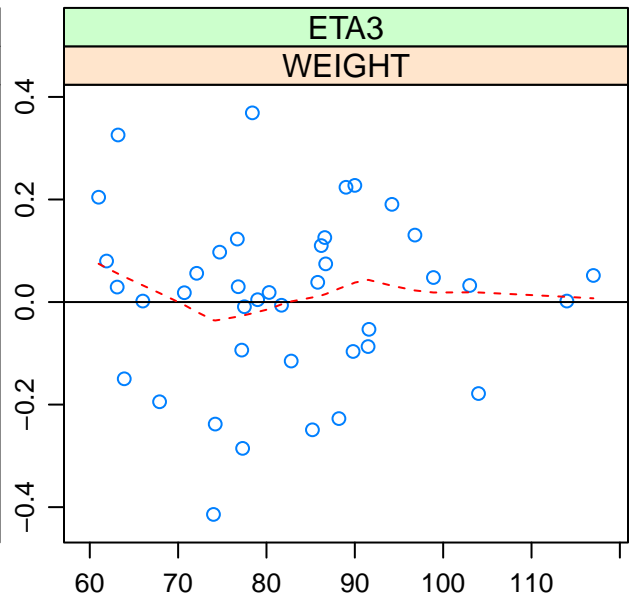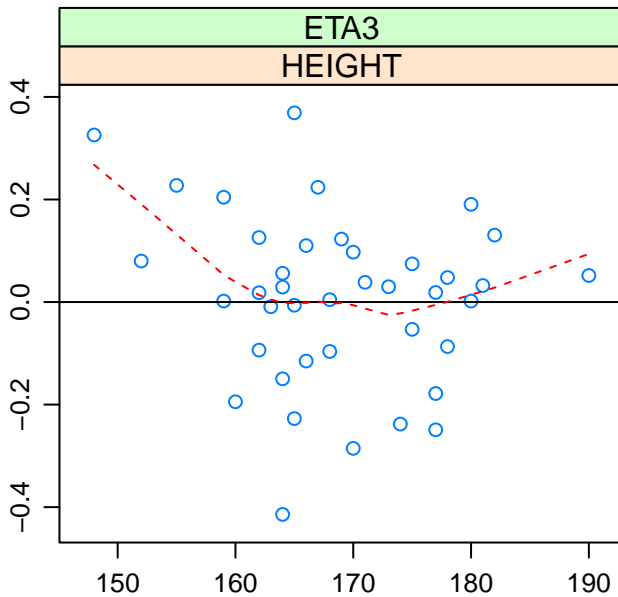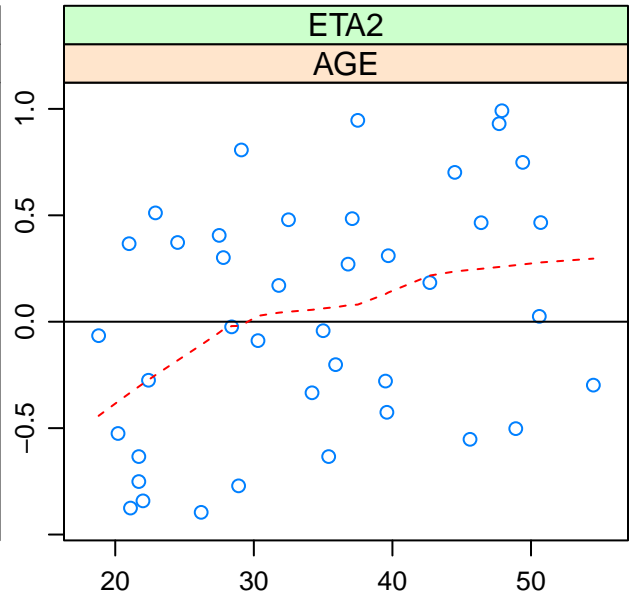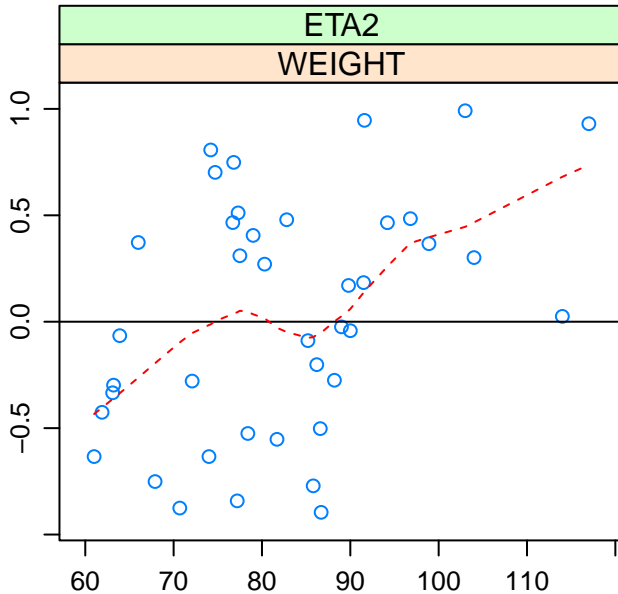**Density of Etas**

Boxplots of Etas by Categorical Covariate

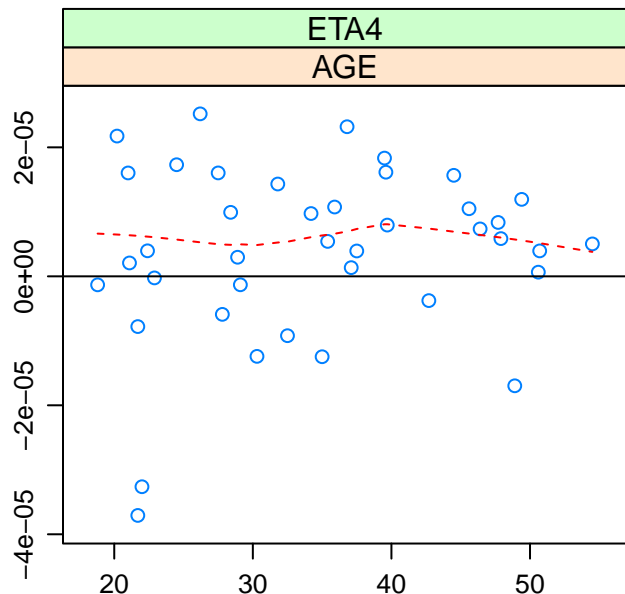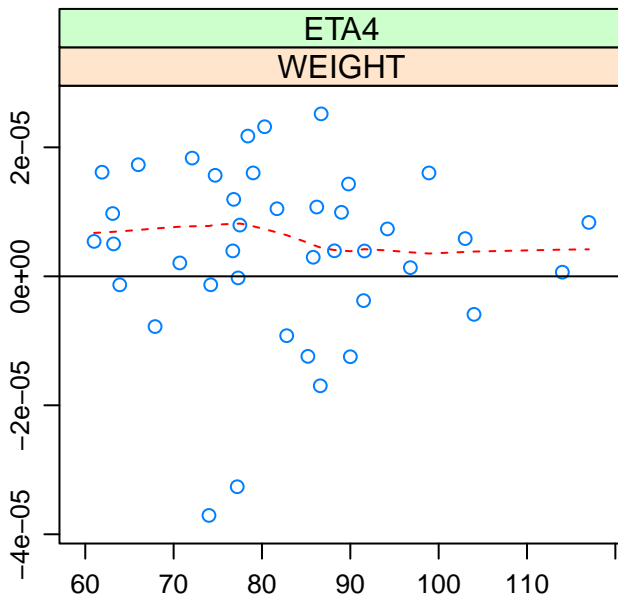# Boxplots of Etas by Categorical Covariate

Etas vs. Continuous Covariates

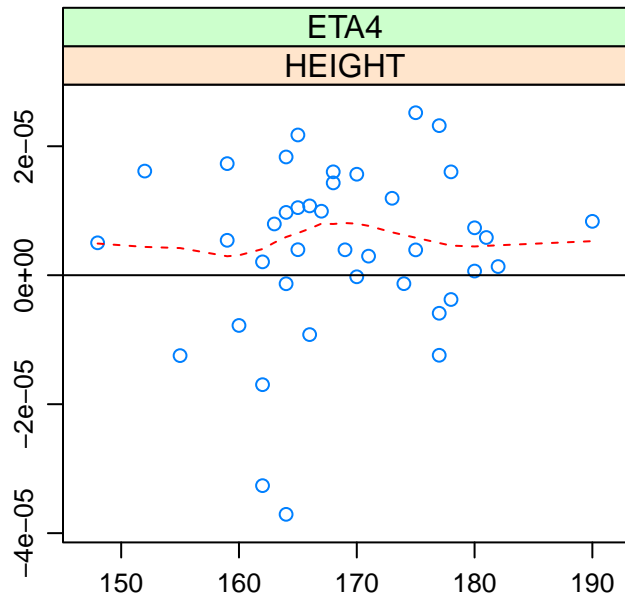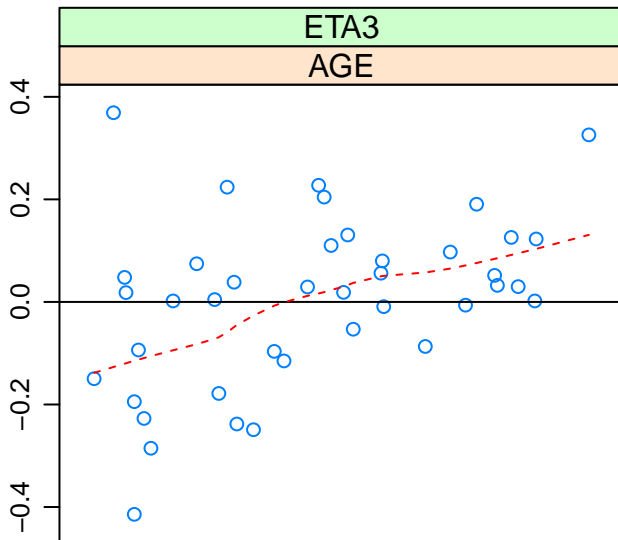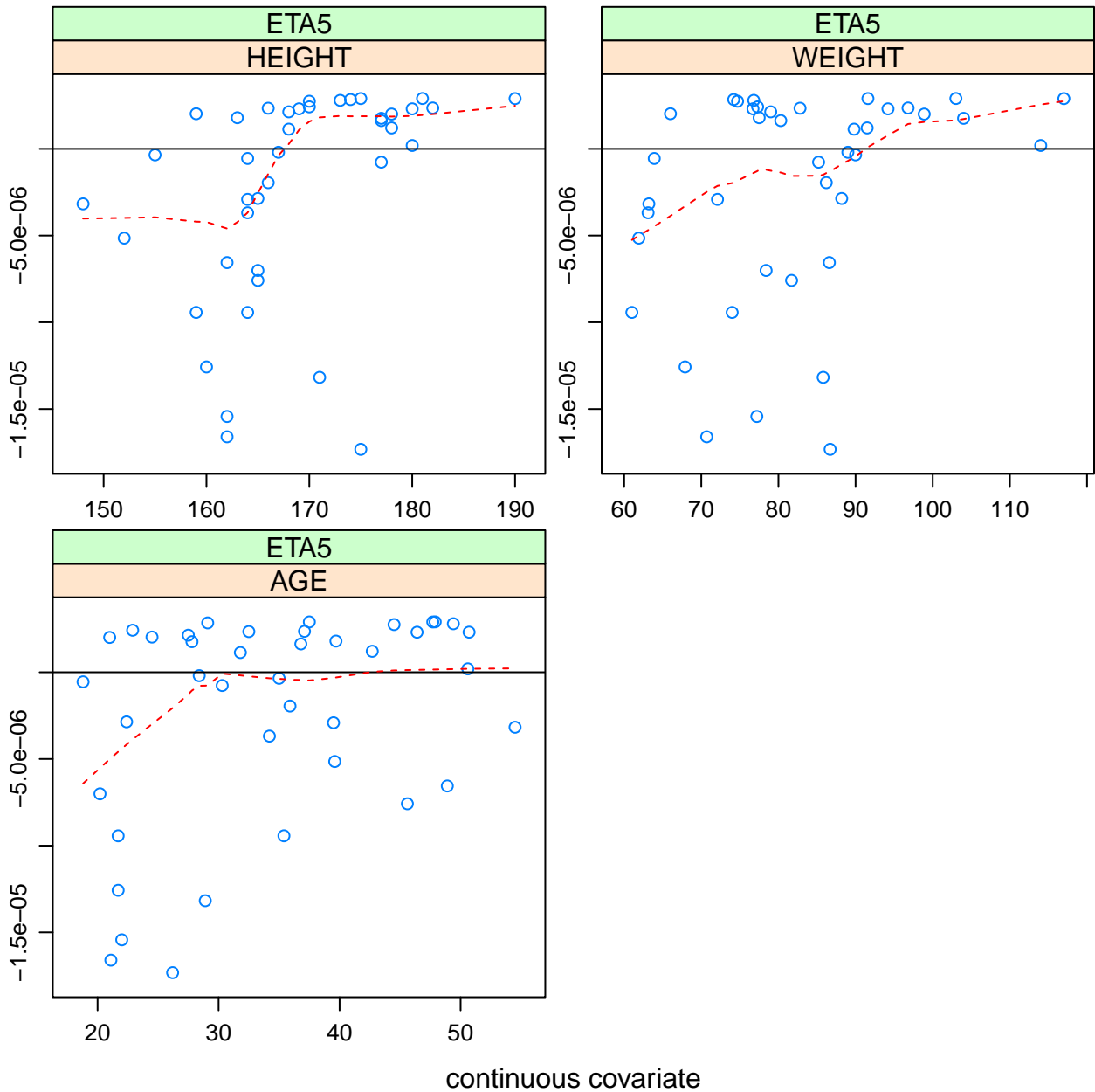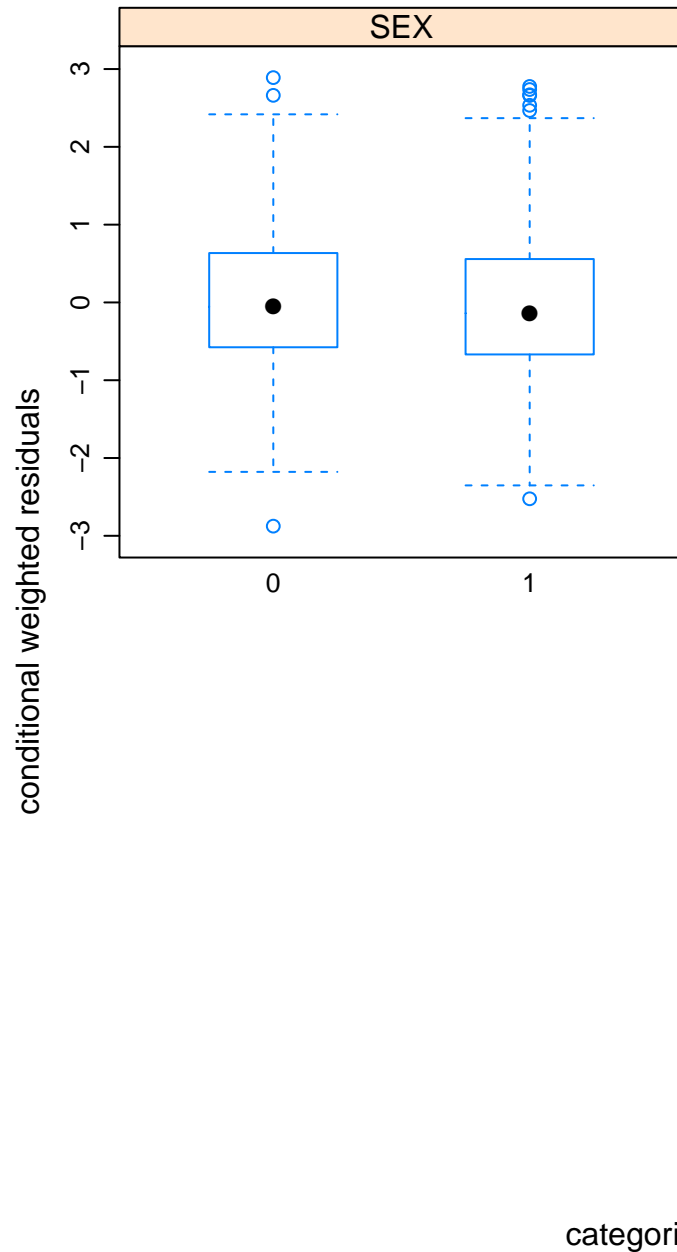**Etas vs. Continuous Covariates**

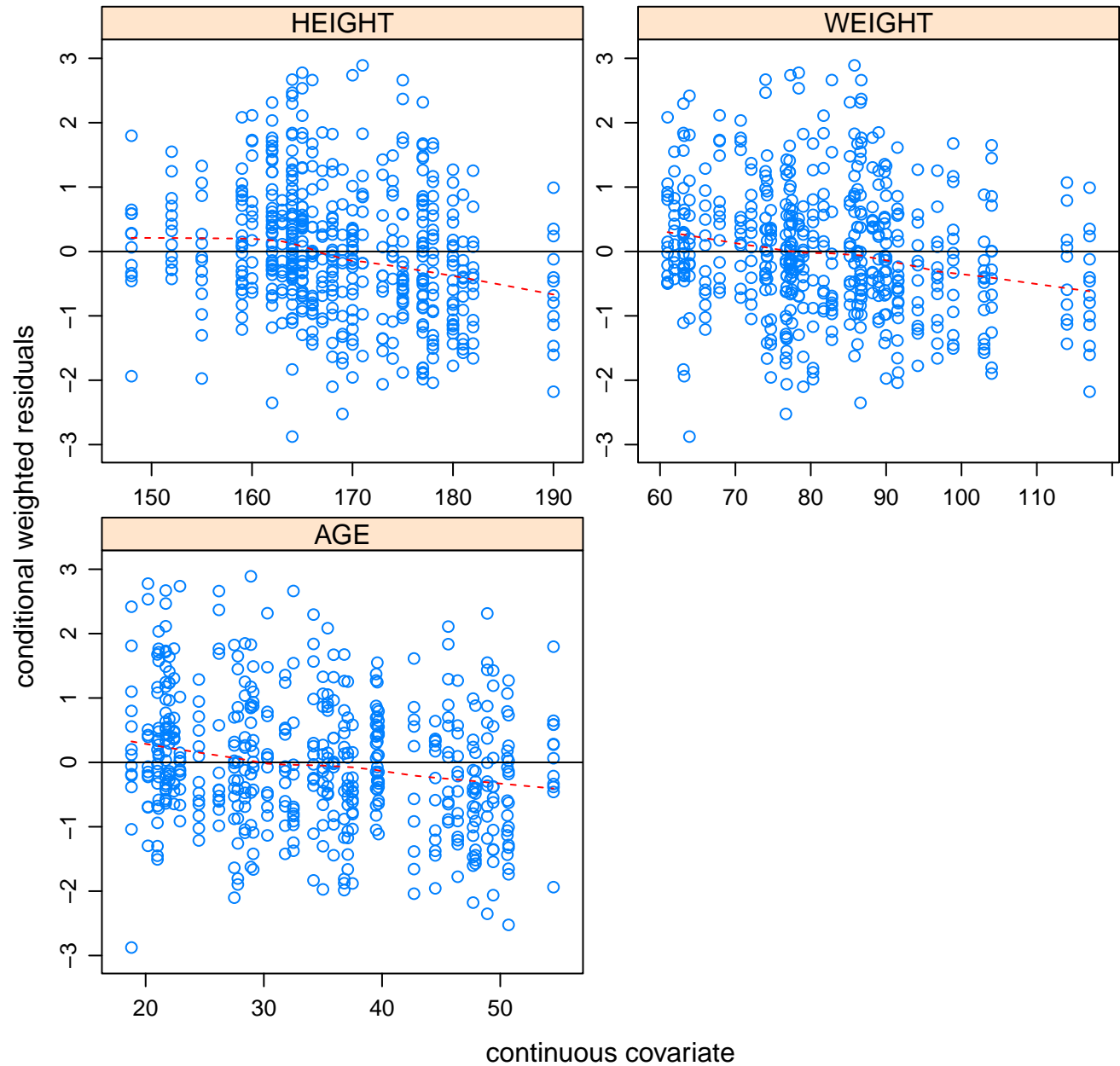Etas vs. Continuous Covariates

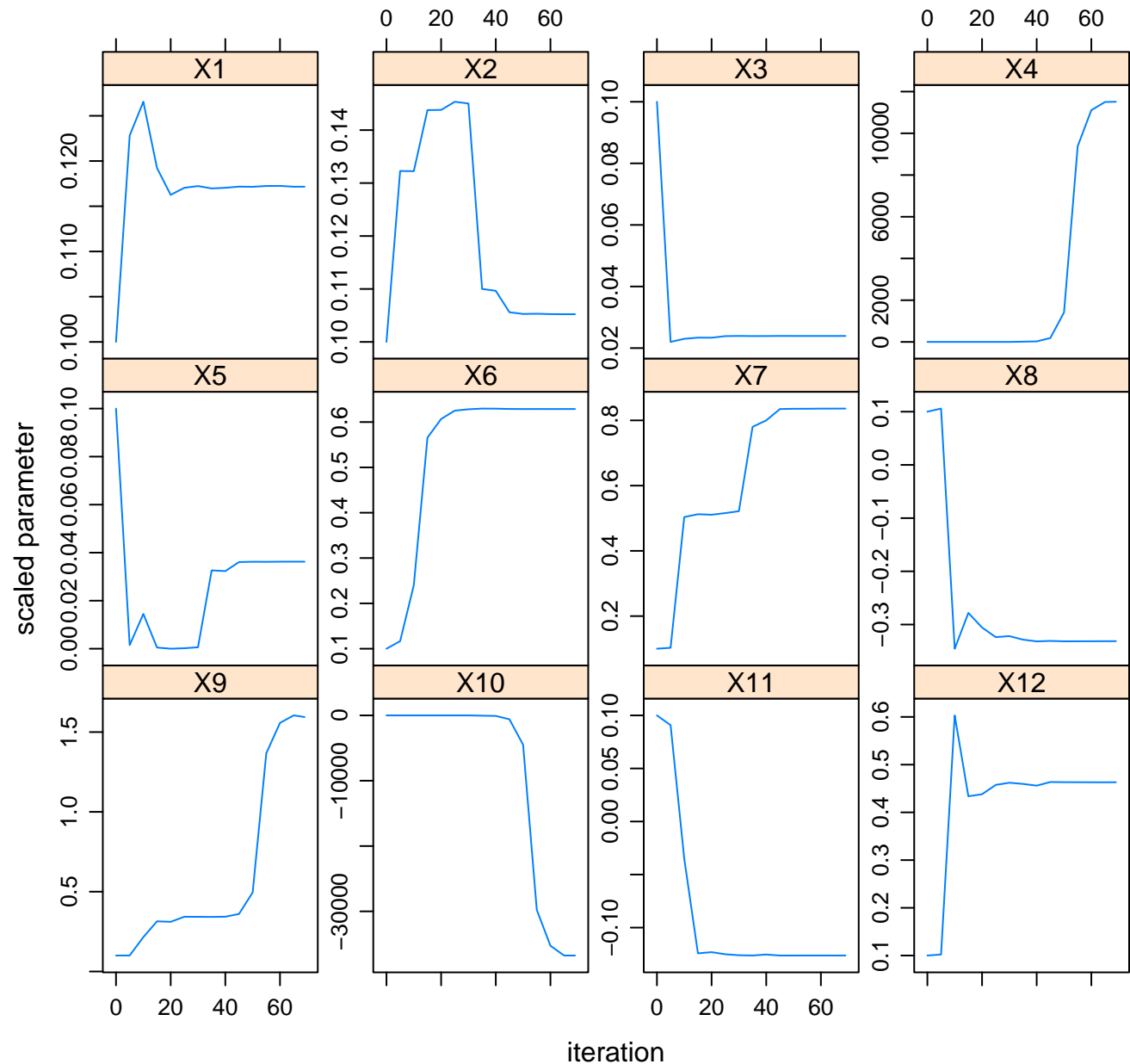# Etas vs. Continuous Covariates

CWRES vs. Categorical Covariates

CWRES vs. Continuous Covariates

Model 1002 parameter search

Model 1002 gradient search