

CONFIDENTIAL

## Testing summary

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(Sign and print name)	
Dates (YYYY-MM-DD)	

## Testing log

Topic	RID	Requirement	Reference
Figures	1	Serum Concentration Versus Time-Individual	v1.2.0_protocol.pdf
	2	Serum Concentration Versus Time-Groups	v1.2.0_protocol.pdf
	3	Observed Versus Predicted	v1.2.0_protocol.pdf
	4	Parameter Distribution	v1.2.0_protocol.pdf
	5	Categorical Covariance	v1.2.0_protocol.pdf
	6	Continuous Covariance	v1.2.0_protocol.pdf
	7	Correlation Pairs	v1.2.0_protocol.pdf
	8	Quantile Plot	v1.2.0_protocol.pdf
	9	Goodness of Fit	v1.2.0_protocol.pdf
	10	Variable Distribution	v1.2.0_protocol.pdf
	11	Bar Charts	v1.2.0_protocol.pdf
	12	VPC	v1.2.0_protocol.pdf
Usability	13	Hard reset button gives an environment with no input retained from previous sessions	v1.2.0_protocol.pdf
Reporting	14	The app creates RTF output for all specified figure, table, and listings	v1.2.0_protocol.pdf
	15	The app creates an R script that can reproduce the analysis outside of the app	v1.2.0_protocol.pdf
Deployment	16	App is under version control	v1.2.0_protocol.pdf
	17	Installation package and instructions work to create new app on a new Envision workflow	v1.2.0_protocol.pdf

RID	Topic	Test ID	Step Description	Expected Result	Qualification Note(s)	Pass/Fail
1	Serum Concentration Versus Time-Individual	1	Create plot panel:  Analysis Selection -> PKInputFigures -> SErum Concentration Versus Time-Individual to 1	ConcvTime panel created in Figures	Panel created	passed
		2	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		3	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		4	Figure specific limits work: Enter the following into "Limit":  EVID != 1&DV>100	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		5	Figure renders and respects changes in Theme Size Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		6	Figure renders and respects changes in Theme Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
2	Serum Concentration Versus Time-Groups	1	Create plot panel:  Analysis Selection -> PKInputFigures -> Serum Concentration Versus Time-Groups to 1	ConcvTimeGroup panel created in Figures	Panel created	passed
		2	Figure renders and respects inputs for "Group Plots" Marky by discrete	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		3	Figure renders and respects inputs for "Group Plots" Marky by continuous	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		4	Figure renders and respects inputs for "Group Plots" Add text inputs	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		5	Figure renders and respects inputs for "Group Plots" Facet by inputs	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		6	Figure renders and respects inputs for "Group Plots" Scales Free inputs	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		7	Figure renders and respects inputs for "Group Plots" Scales Free_x inputs	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		8	Figure renders and respects inputs for "Group Plots" Scales Free_y inputs	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		9	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		10	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		11	Figure renders and respects inputs for all "Summarize Data?" boxes (Mean Standard Deviation)	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		12	Figure renders and respects inputs for all "Summarize Data?" boxes (Median 95% confidence interval)	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		13	Figure renders and respects inputs for all "Limits and Transformations" Inputs: DOSE<=7	Plot is updated, respecting inputs. Screencap as evidence	Used SEX==0 instead of DOSE==1	passed
		14	Figure renders and respects changes in Theme Size Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		15	Figure renders and respects changes in Theme Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
3	Observed Versus Predicted	1	Create plot panel:  Analysis Selection -> Model figures -> Observed vs Predicted to 1	OBSvPRED panel created in Figures	Panel created	passed
		2	Figure renders and respects inputs for all "Group Plots" inputs: Marky by Discrete	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		3	Figure renders and respects inputs for all "Group Plots" inputs: Marky by Continuous	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		4	Figure renders and respects inputs for "Group Plots" Facet by and add text inputs	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		5	Figure renders and respects inputs for "Group Plots" Facet ncol and nrow inputs	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		6	Figure renders and respects inputs for "Group Plots" Scales Free_y inputs	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		7	Figure renders and respects inputs for all "Plots Details" and "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		8	Figure specific limits work: Enter the following into "Limit":  DOSE<=7	Plot is updated, respecting inputs. Screencap as evidence	Used DV < 5 instead of DOSE <= 7	passed

RID	Topic	Test ID	Step Description	Expected Result	Qualification Note(s)	Pass/Fail
		9	Figure renders and respects changes in Theme Size Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		10	Figure renders and respects changes in Theme Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
4	Parameter Distribution	1	Create plot panel:  Analysis Selection -> Model figures ->Parameter Distribution to 1	paramDist panel created in Figures		
		2	Figure renders and respects inputs for all "Group Plots" inputs	Plot is updated, respecting inputs. Screencap as evidence	Panel created Screencap provided	passed
		3	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		4	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		5	Figure specific limits work: Enter the following into "Limit":  DOSE<=7	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided, using SEX==0	passed
		6	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
5	Categorical Covariance	1	Create plot panel:  Analysis Selection -> Model figures -> Categorical covariance to 1	covCat panel created in Figures		
		2	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Panel created Screencap provided	passed
		3	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		4	Figure specific limits work: Enter the following into "Limit":  DOSE<=7	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided using ETA1 < 0	passed
		5	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
6	Continuous Covariance	1	Create plot panel:  Analysis Selection -> Model figures -> Continuous covariance to 1	covCon panel created in Figures		
		2	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Panel created Screencap provided	passed
		3	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		4	Figure specific limits work: Enter the following into "Limit":  DOSE<=7	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided with AGE>40	passed
		5	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
7	Correlation Pairs	1	Create plot panel:  Analysis Selection -> Model figures -> Correlation Pairs to 1	corPairs panel created in Figures		
		2	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Panel created Screencap provided	passed
		3	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		4	Figure specific limits work: Enter the following into "Limit":  DOSE<=7	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided using ETA2 > 0	passed
		5	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
8	Quantile Plot	1	Create plot panel:  Analysis Selection -> Model figures -> QQ Plot to 1	QQplot panel created in Figures		
		2	Figure renders and respects "Group Plots" facet by input	Plot is updated, respecting inputs. Screencap as evidence	Panel created Screencap provided	passed
		3	Figure renders and respects inputs for "Group Plots" Facet ncol and nrow inputs	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		4	Figure renders and respects inputs for all "Plots Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		5	Figure renders and respects inputs for all "Change Defaults" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed

RID	Topic	Test ID	Step Description	Expected Result	Qualification Note(s)	Pass/Fail
		6	Figure specific limits work: Enter the following into "Limit": DOSE<=7	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		7	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
9	Goodness of Fit	1	Create plot panel:  Analysis Selection -> Model figures -> GOF to 1	GOF panel created in Figures	Panel created	passed
		2	Figure renders and respects inputs for "Group Plots" Marky by discrete	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		3	Figure renders and respects inputs for "Group Plots" Marky by continuous	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		4	Figure renders and respects inputs for "Group Plots" plot loess	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		5	Figure renders and respects inputs for all "Plot Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Previous 3 tests prove this	passed
		6	Figure renders and respects inputs for all "IPRED Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		7	Figure renders and respects inputs for all "PRED Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		8	Figure renders and respects inputs for all "DV Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		9	Figure renders and respects inputs for all "RESID Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		10	Figure renders and respects inputs for all "NPDE Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		11	Figure specific limits work: Enter the following into "Limit": DOSE<=7	Plot is updated, respecting inputs. Screencap as evidence	Limited to SEX==0, screencap	passed
		12	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
10	Variable Distribution	1	Create plot panel:  Analysis Selection -> Model figures -> distMult to 1	distMult panel created in Figures	Panel created	passed
		2	Figure renders and respects inputs for all "Plot Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		3	Figure renders and respects inputs for all "Manipulate Data" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided using WT > 50	passed
		4	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
11	Bar Charts	1	Create plot panel:  Analysis Selection -> Model figures -> barchartMult to 1	barchartMult panel created in Figures	Panel created	passed
		2	Figure renders and respects inputs for all "Plot Details" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		3	Figure renders and respects inputs for all "Manipulate Data" boxes	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
		4	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed
12	VPC	1	Simulation data can be loaded, merged with source data, and displayed on screen. The mi210 510 and 511 runs will be used for this RID. Verify that the data parser runs on the VPC data.	Merged simulation data shown on screen. Screencap as evidence.	Screencap provided	passed
		2	Additional csv dataset can be loaded and displayed. Use the parser to demonstrate that it runs on the additional data.	Additional data can be loaded and displayed, Screencap shown as evidence.	Screencap provided	passed
		3	Figure renders and respects inputs for all figures of the shading type "simulated percentile/Each Percentile"	Plot is updated, respecting inputs.	Screencaps 12-03-01:12-03-6 as evide	passed
		4	Figure renders and respects inputs for all figures of the shading type "predicted median"	Plot is updated, respecting inputs.	Screencaps 12-04-01:12-04-6 as evide	passed
		5	Figure renders and respects inputs for all figures of the shading type "none"	Plot is updated, respecting inputs.	Screencaps 12-05-01:12-05-6 as evide	passed
		6	Figure renders and respects inputs for all figures of the shading type "simulated percentile/Overall Percentile"	Plot is updated, respecting inputs.	Screencaps 12-06-01:12-06-5 as evide	passed
		7	Figure renders and respects inputs for all "Manipulate Data" boxes	Plot is updated, respecting inputs.	Verified with "subset(\$DATA, IREP<10)"	passed
		8	Figure renders and respects changes in Theme Size and Colour Manipulation	Plot is updated, respecting inputs. Screencap as evidence	Screencap provided	passed

RID	Topic	Test ID	Step Description	Expected Result	Qualification Note(s)	Pass/Fail
14	The app creates RTF output for all specified figure, table, and listings	1	Load the attached validation template into the application (510-template.R)	Template is loaded	Template loads	pass
		2	Select ordering of objects to printed in TFL	Screenshot which RTF will be checked against	Screenshot included	pass
		3	Generate the RTF and write the companion R script: In "Save and Export" select "Construct *.Doc" and "Reveal Function Text". In filename enter "validation" Press save	validation doc and R script are created	Doc file and R script are created	pass
		4	All objects are located in the RTF, and ordering respects that of the user	Yes. Attach the doc file	Yes. Doc file is attached.	pass
15	The app creates an R script that can reproduce the analysis outside of the app	1	Using the R script created in step 35.3, run the file in R to recreate the RTF file. Verify that the RTF matches that generated in 35.3	Matches. Attach the doc file and R script.	Matches step 14-3. Doc and script attached	pass

RID	Topic	Test ID	Step Description	Expected Result	Qualification Note(s)	Pass/Fail
13	Hard reset button gives an environment with no input retained from previous sessions	1	Pressing "Hard reset" button, check input fields to verify they have been reset to the defaults	Input fields are reset to the defaults	Fields were reset successfully	Pass

RID	Topic	Test ID	Step Description	Expected Result	Qualification Note(s)	Pass/Fail
16	The app is under version control	1	Record commit ID for tagged release	git commit ID f21340f9		pass
17	Installation package and instructions work to create new app on a new Envision workflow	1	Launch a new Envision workflow	Launch successful		pass
		2	Upload installation package to Envision workflow via Rstudio	Upload successful		pass
		3	Update nginx by running: cd script sudo ./nginx-update.sh  Report output of: nginx -v	>= 1.10.1  nginx version: nginx/1.10.1		pass
		4	As user, run pkgSetup.R: cd script R CMD BATCH pkgSetup.R	No errors in pkgSetup.Rout	No errors	pass
		5	Copy shiny-server config file to correct location: sudo cp script/shiny-server.conf /etc/shiny-server/shiny-server.conf	Copy successful	Copy successful	pass
		6	Ensure application is running: Log in to Metworx dashboard, click "Envision", click "TFL Generator",	Application is running	Application running	pass

## Appendix

### Listing of attachments

- 510-template.R: Testing template used in this document
- testing\_2017-01-09\_Figures.doc: Output doc file from app
- testing\_2017-01\_09\_Figures\_rebuild\_from\_script.doc: Output doc file from reproducible R script
- testing\_20107-01-09\_script.R: Reproducible R script

### Screenshots

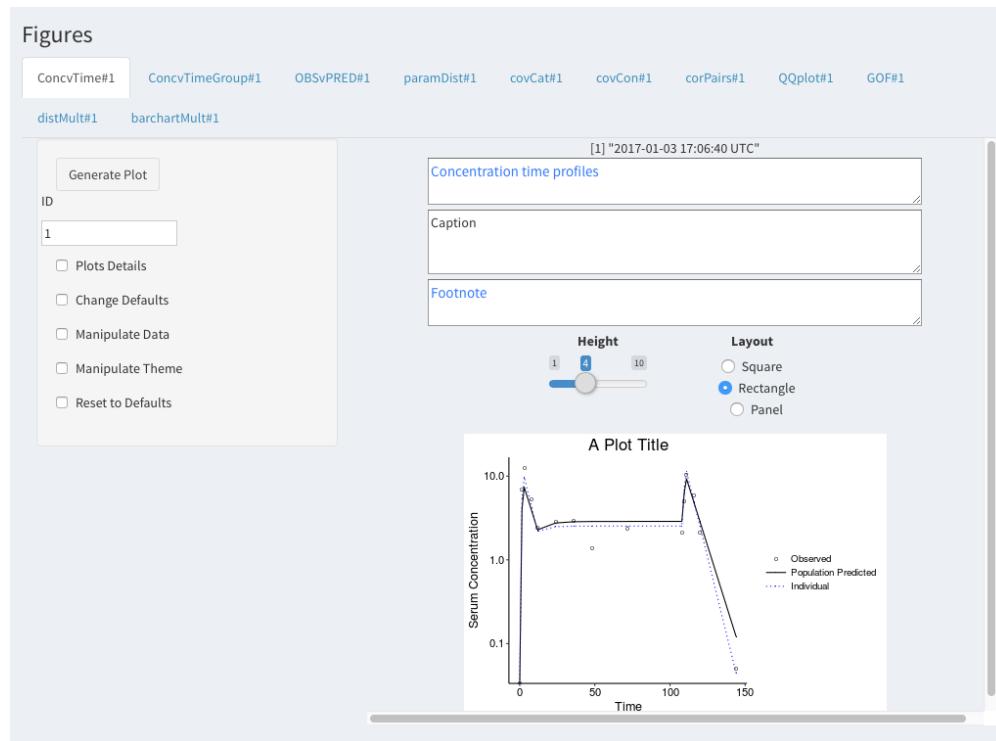


Figure 1: RID: 01 Test ID: 01

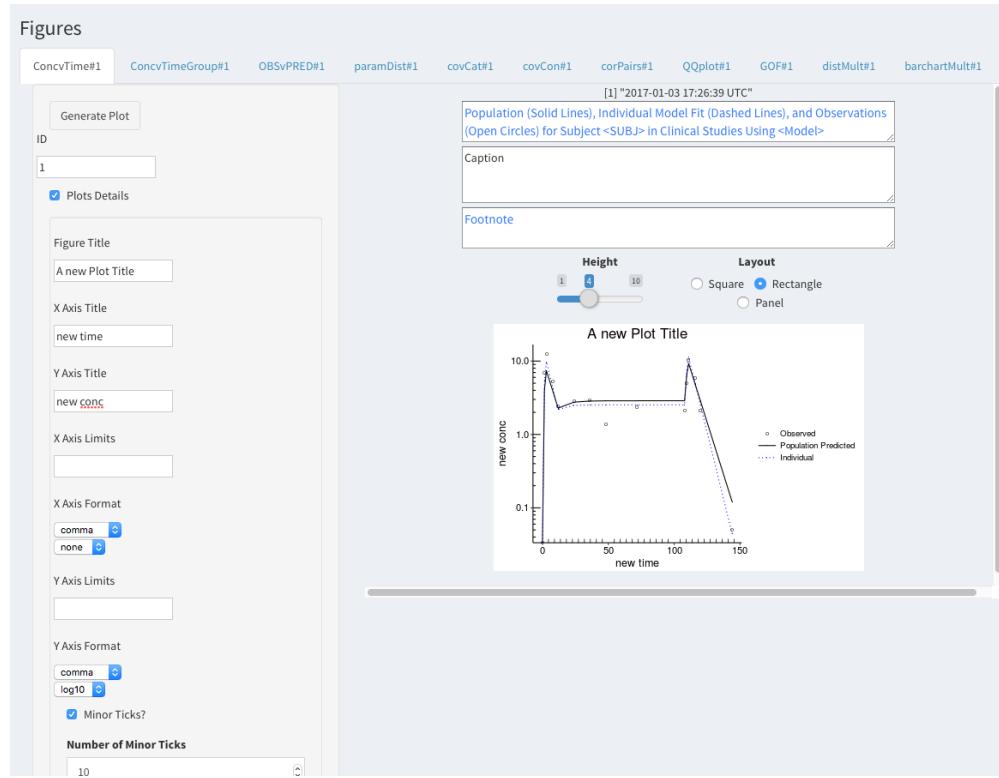


Figure 2: RID: 01 Test ID: 02

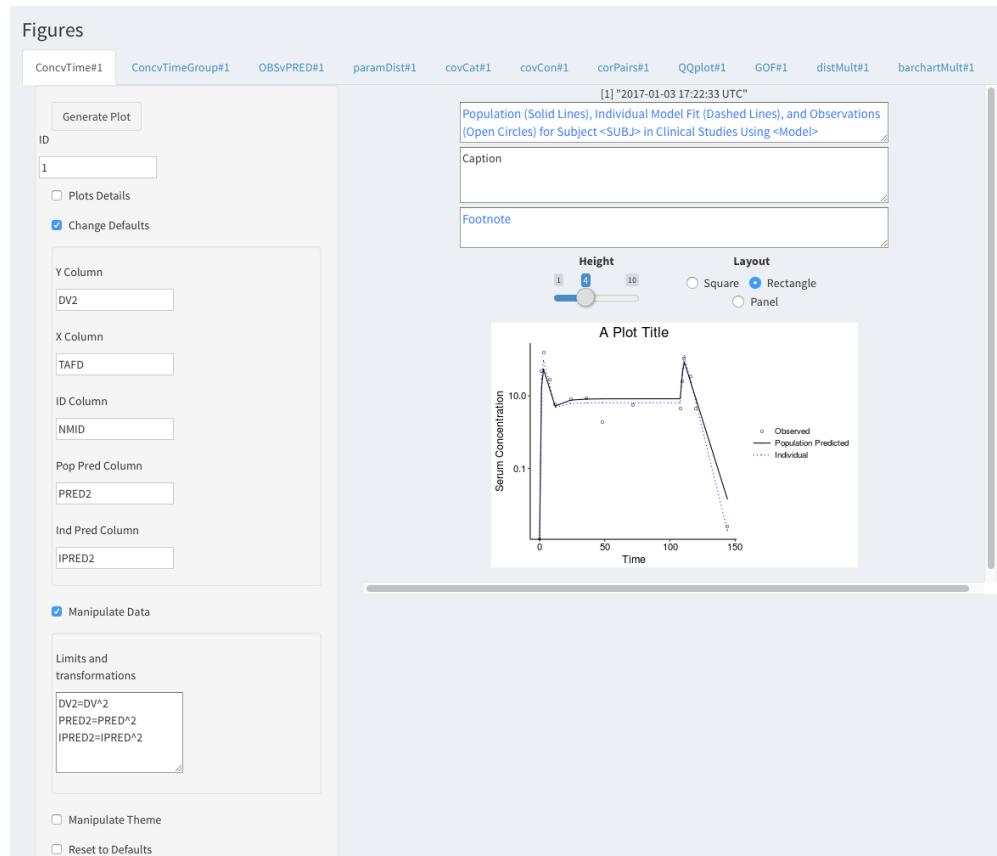


Figure 3: RID: 01 Test ID: 03

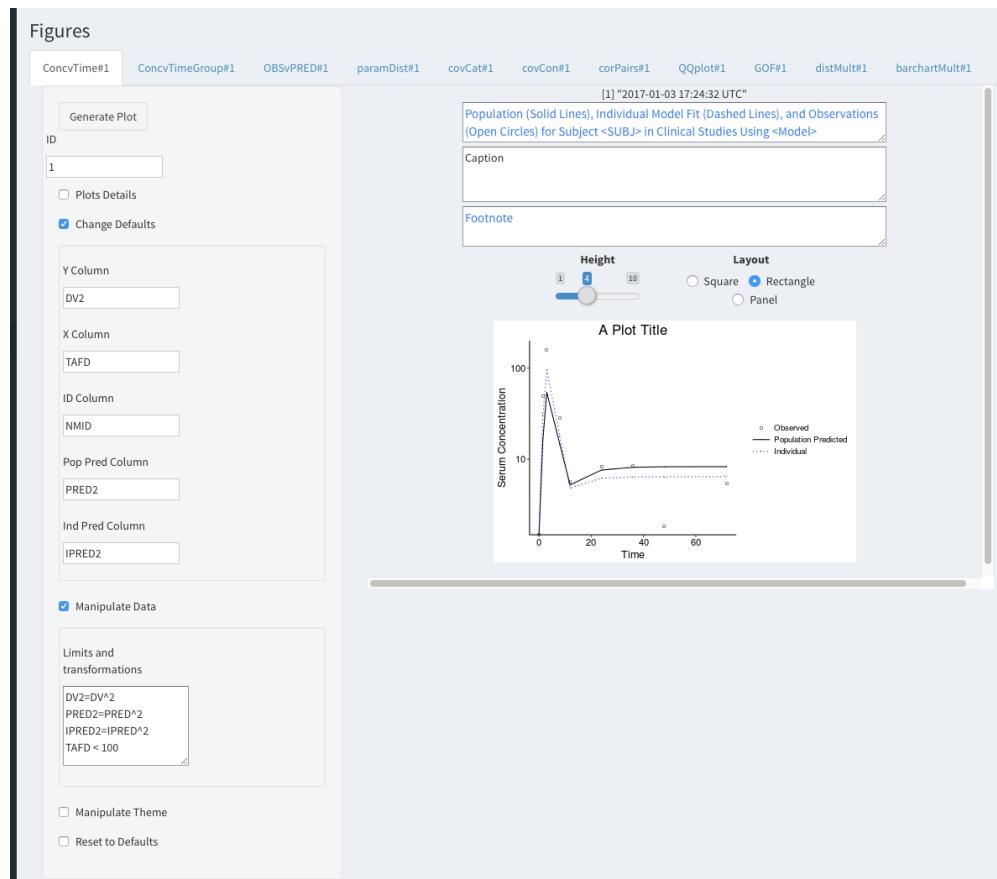


Figure 4: RID: 01 Test ID: 04

Figures

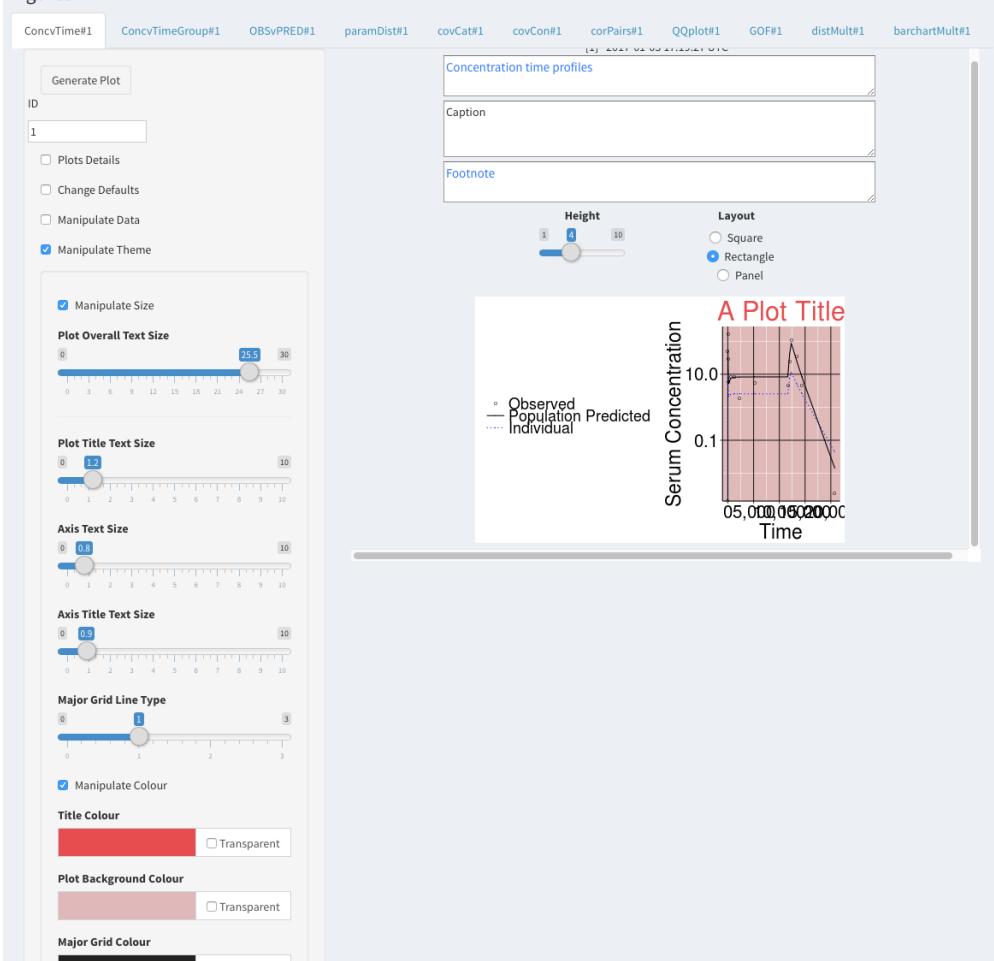


Figure 5: RID: 01 Test ID: 05

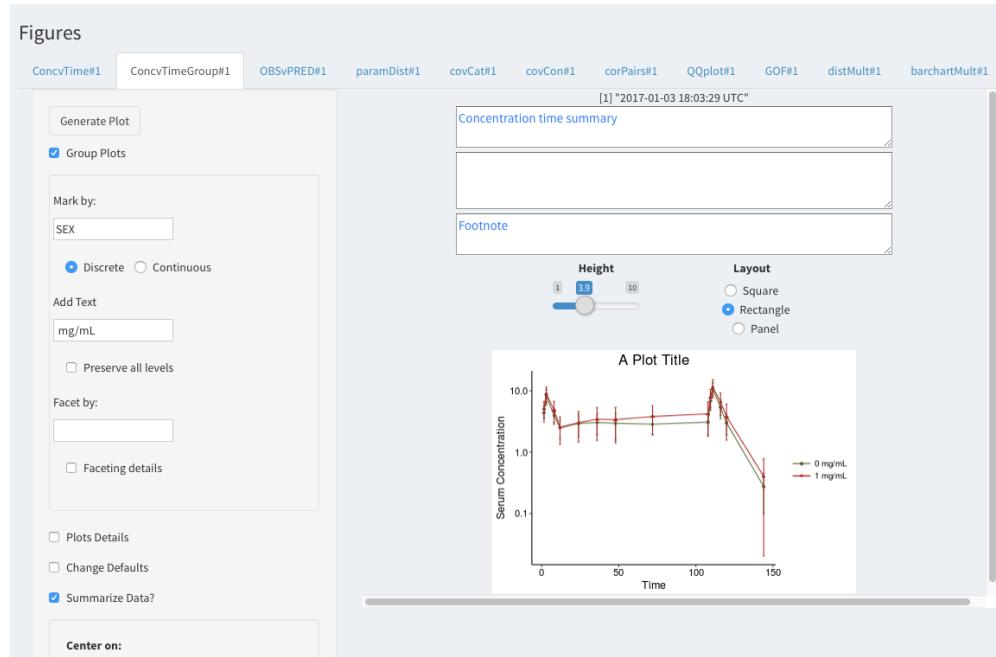


Figure 6: RID: 02 Test ID: 02

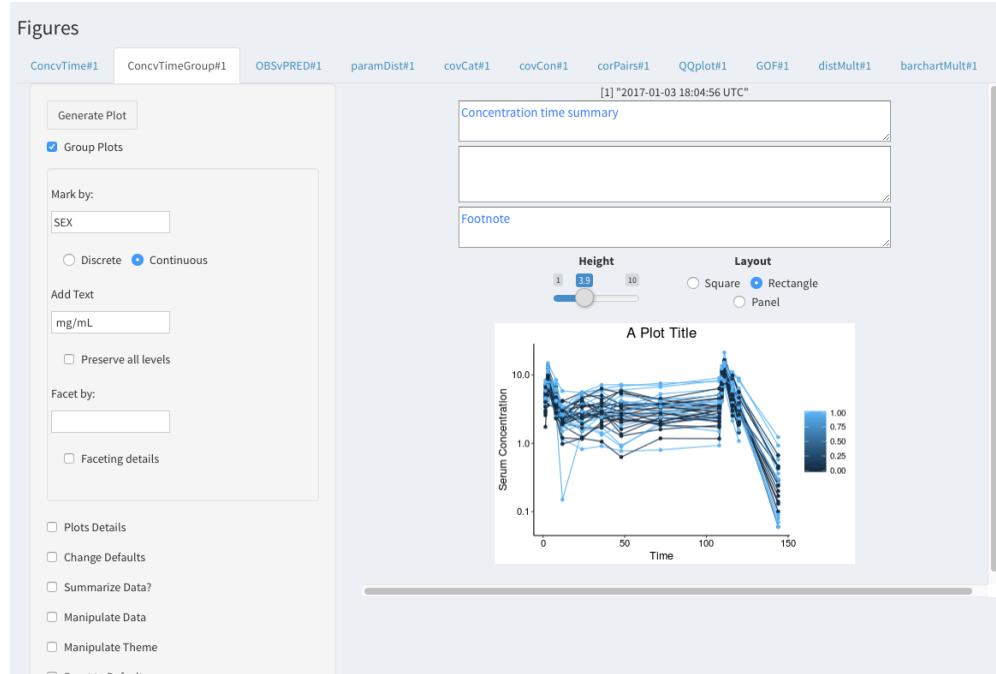


Figure 7: RID: 02 Test ID: 03

Figures

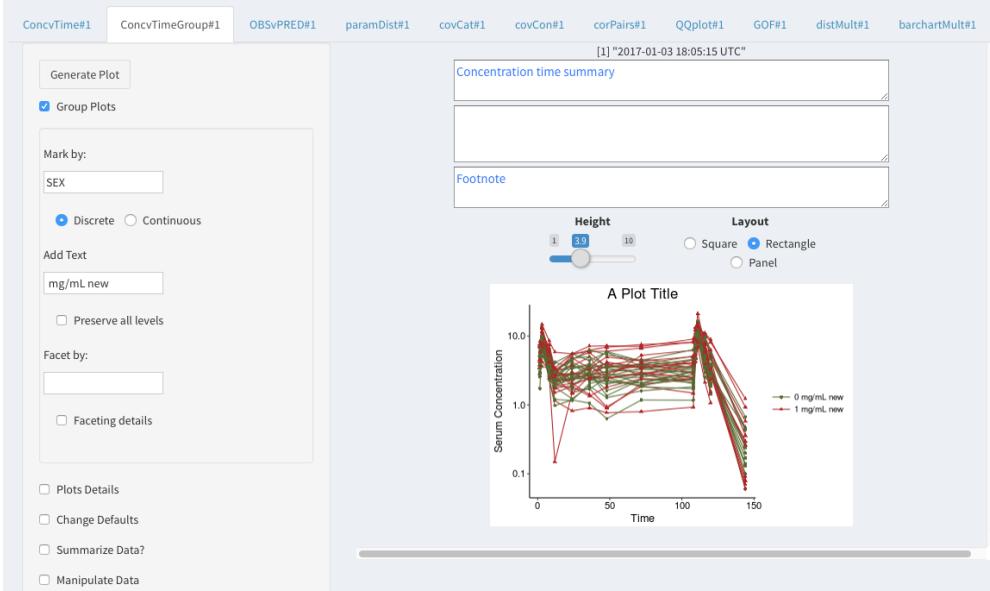


Figure 8: RID: 02 Test ID: 04

Figures

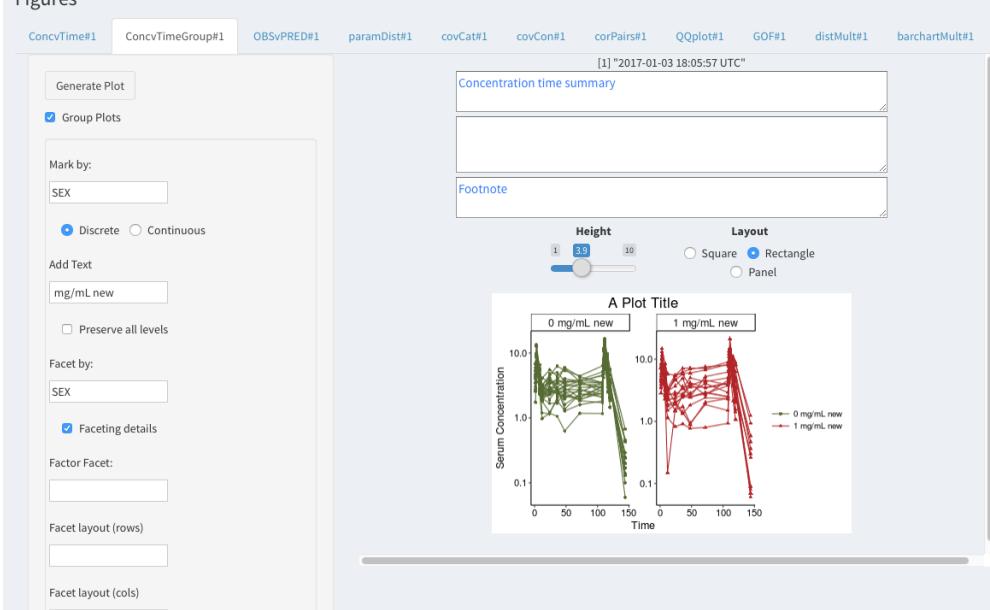


Figure 9: RID: 02 Test ID: 05

Figures

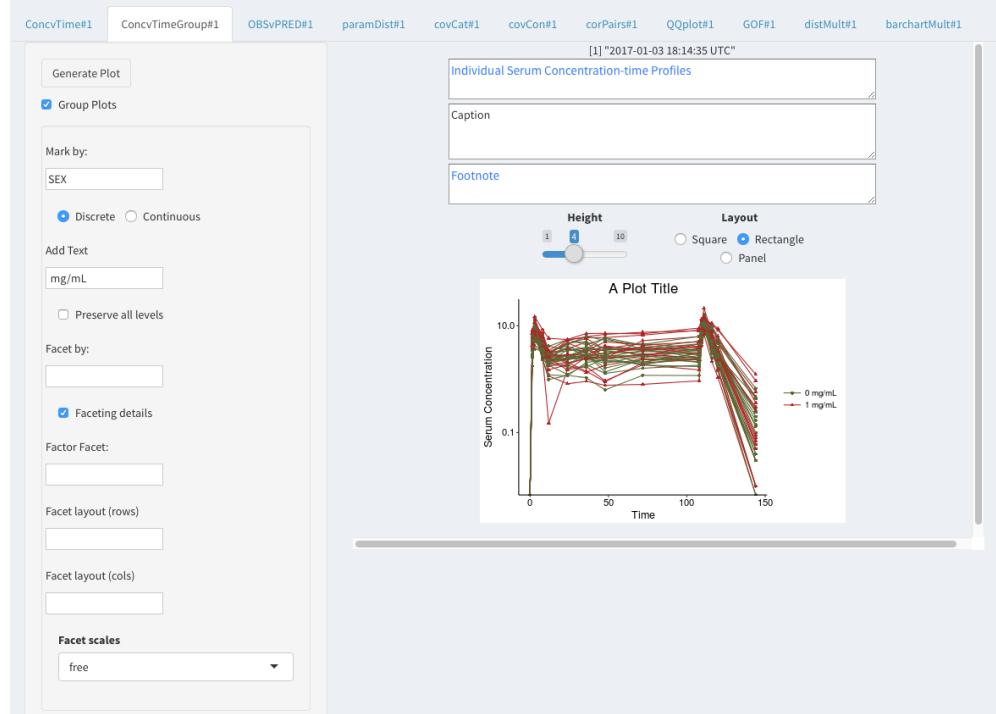


Figure 10: RID: 02 Test ID: 06

Figures

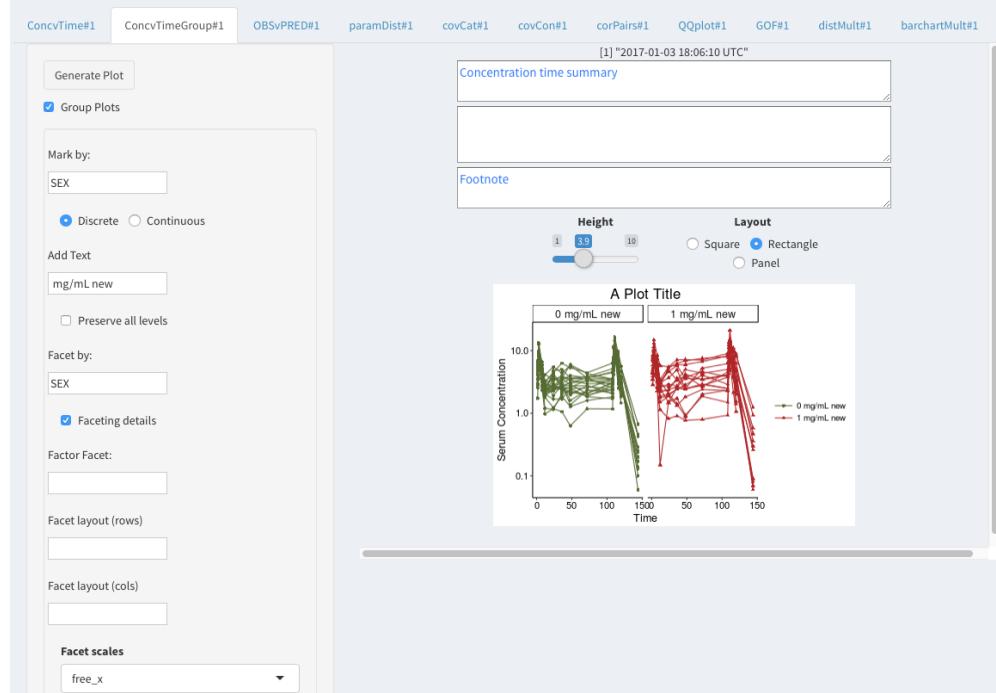


Figure 11: RID: 02 Test ID: 07

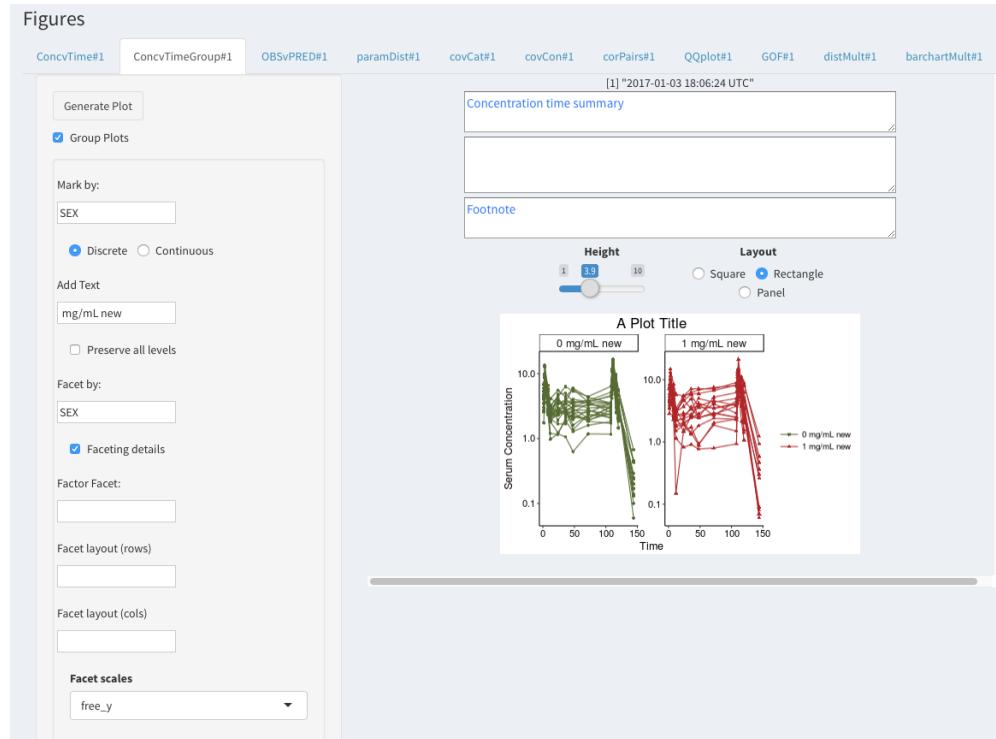


Figure 12: RID: 02 Test ID: 08

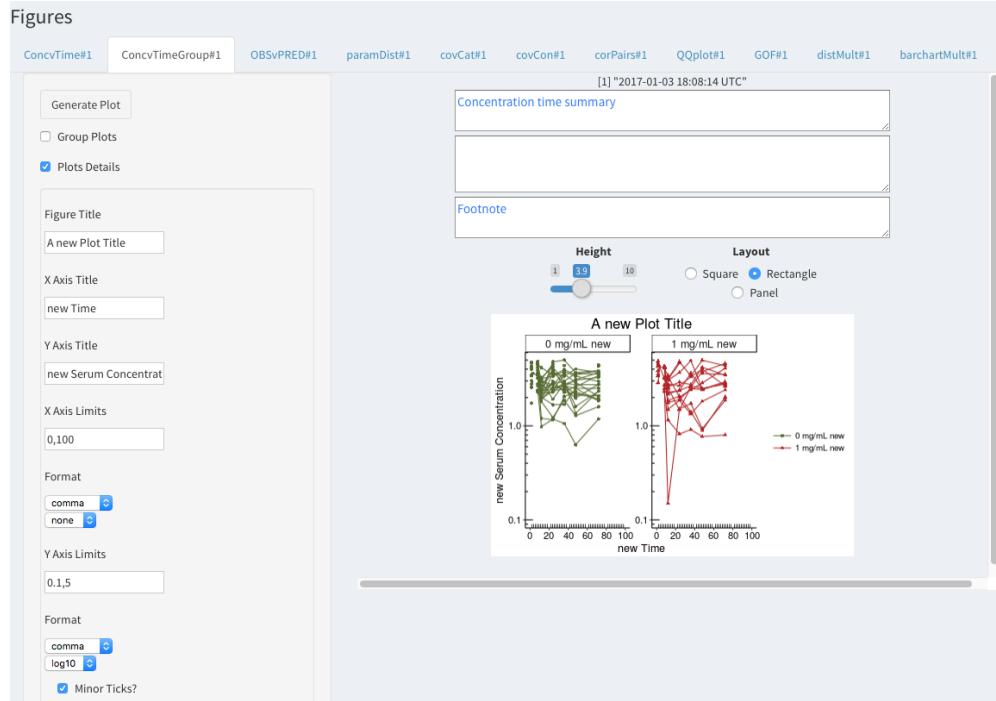


Figure 13: RID: 02 Test ID: 09

Figures

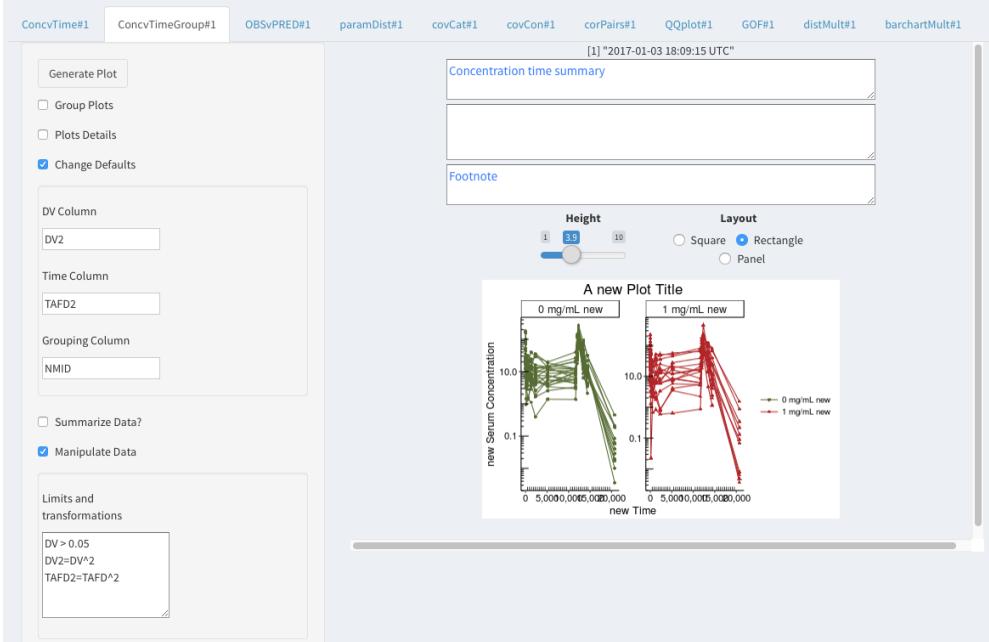


Figure 14: RID: 02 Test ID: 10

Figures

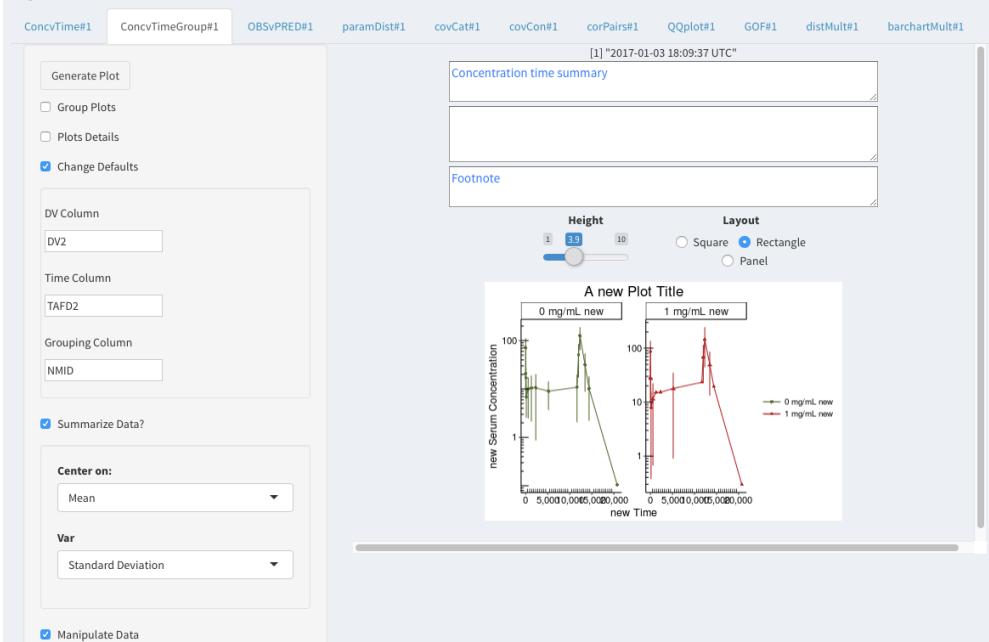


Figure 15: RID: 02 Test ID: 11

Figures

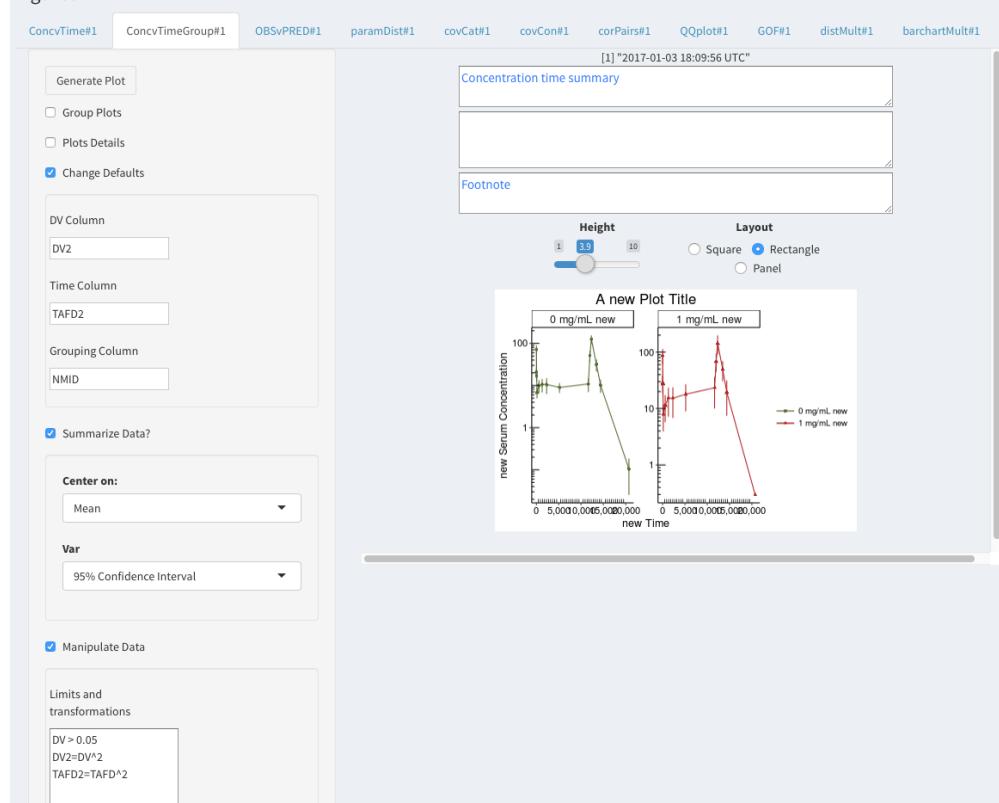


Figure 16: RID: 02 Test ID: 12

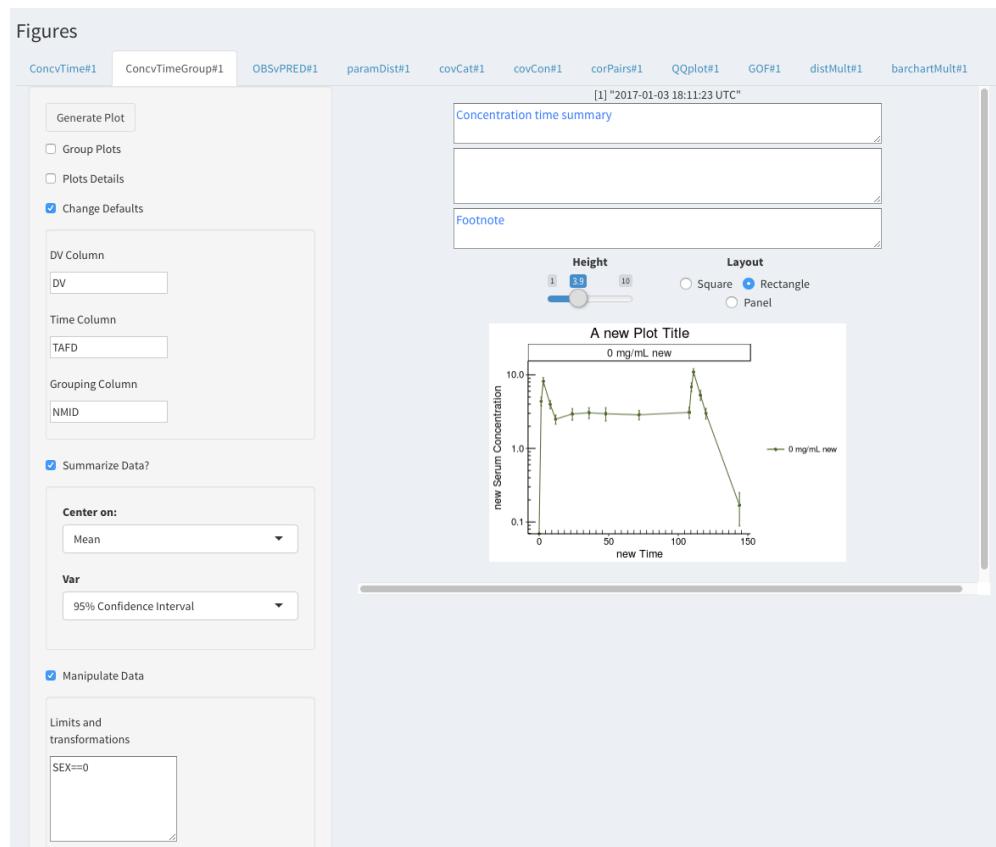


Figure 17: RID: 02 Test ID: 13

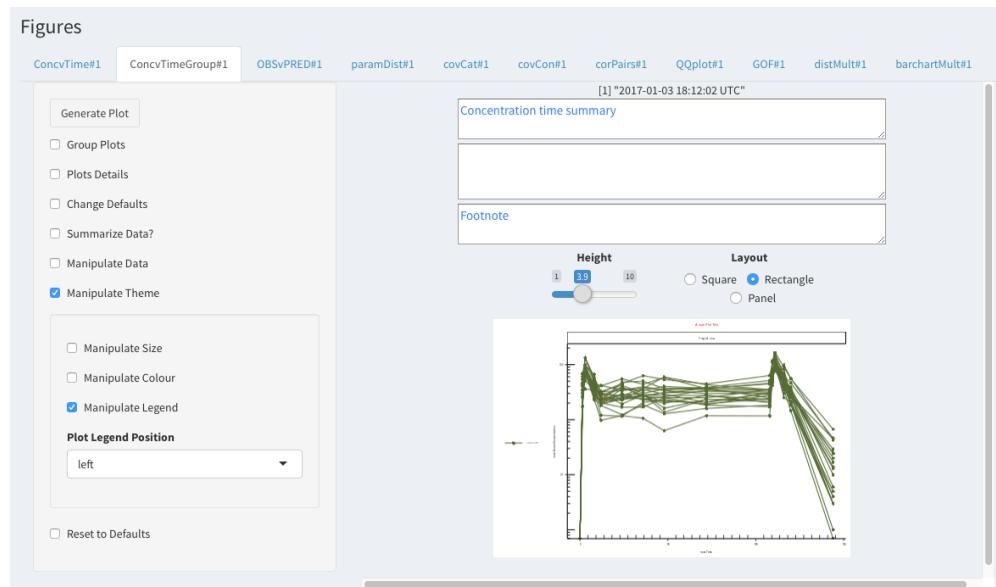


Figure 18: RID: 02 Test ID: 14

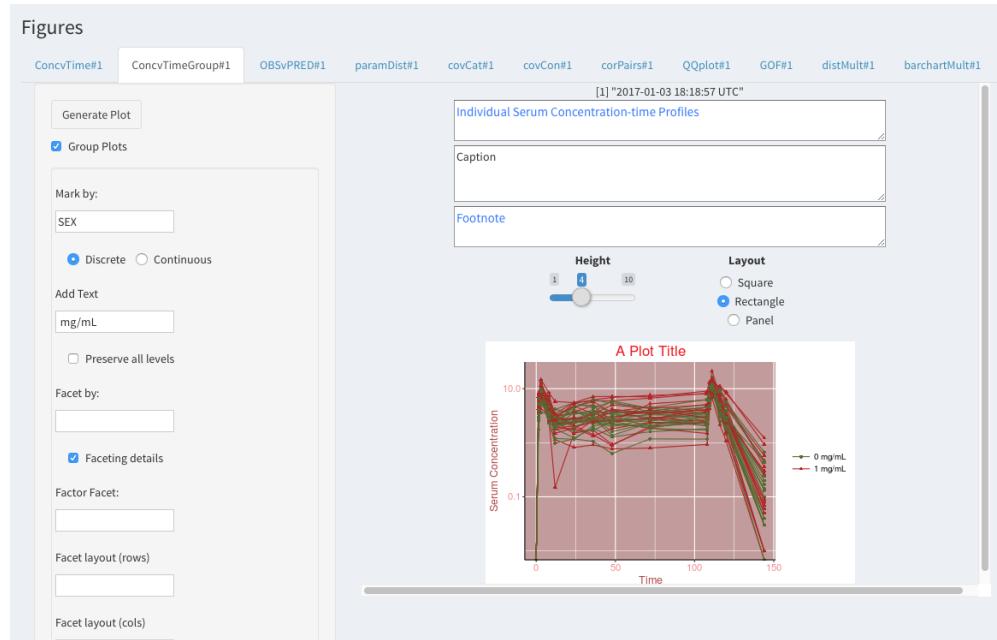


Figure 19: RID: 02 Test ID: 15

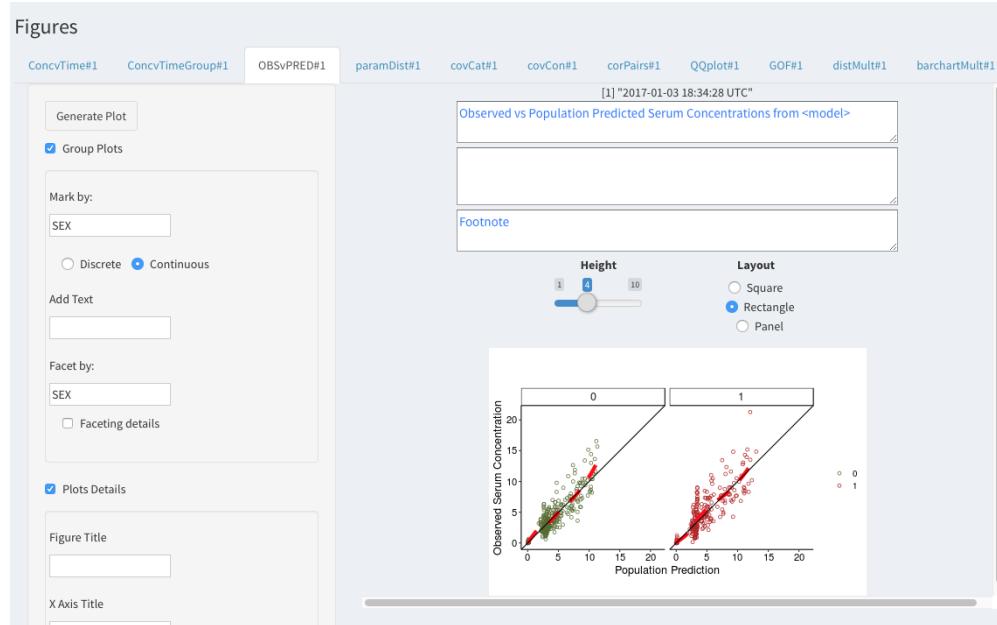


Figure 20: RID: 03 Test ID: 02

Figures

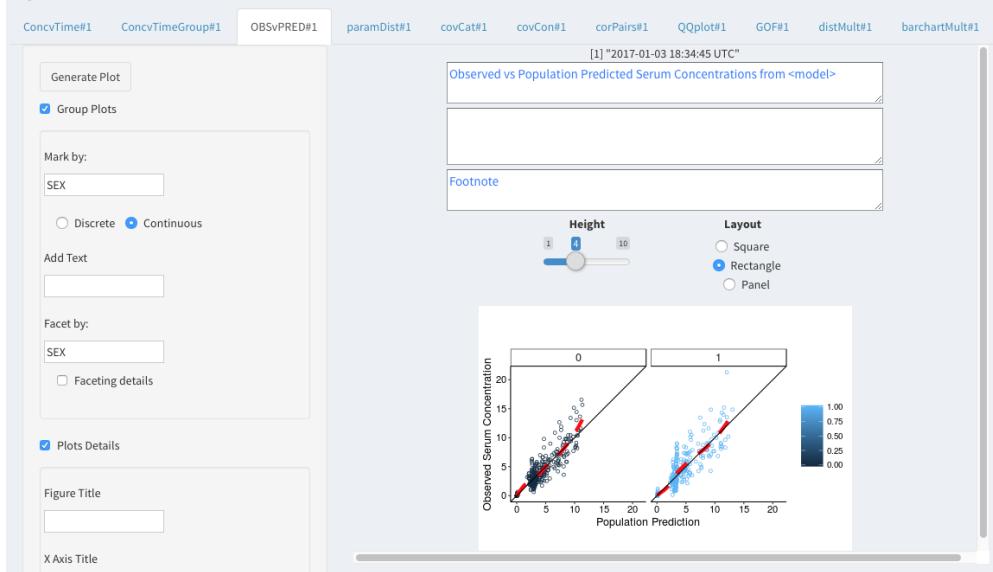


Figure 21: RID: 03 Test ID: 03

Figures

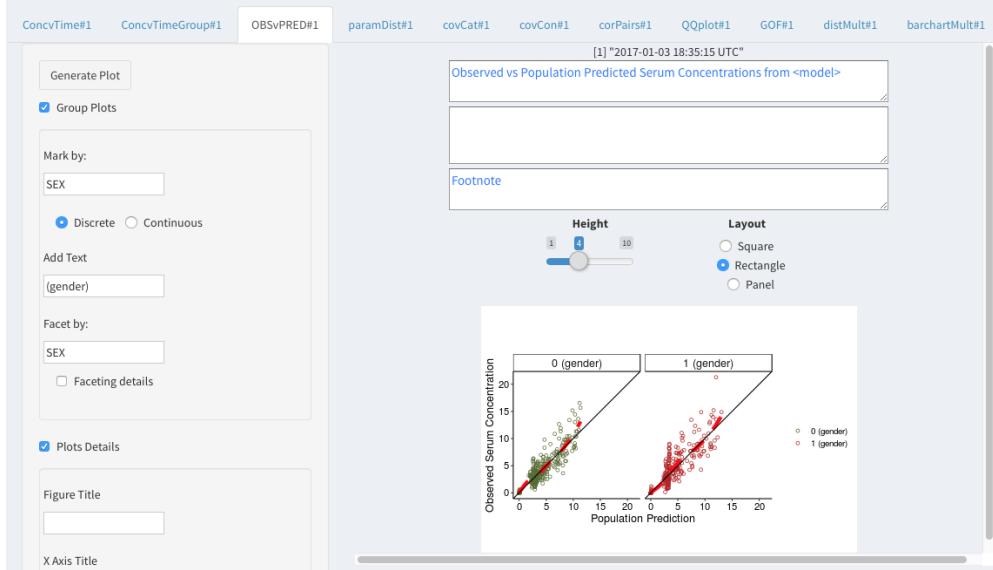


Figure 22: RID: 03 Test ID: 04

Figures

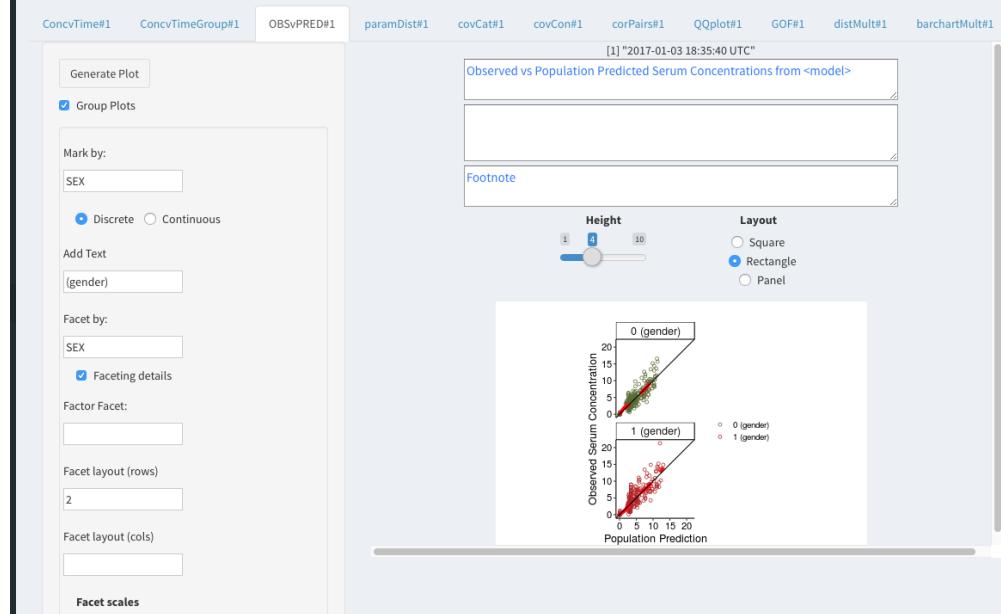


Figure 23: RID: 03 Test ID: 05

Figures

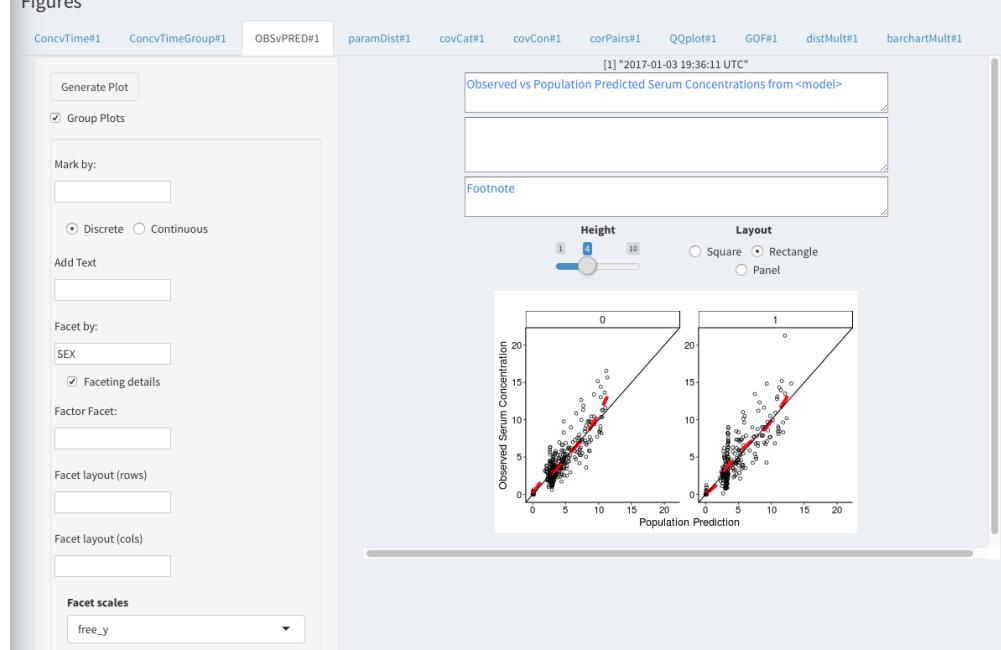


Figure 24: RID: 03 Test ID: 06

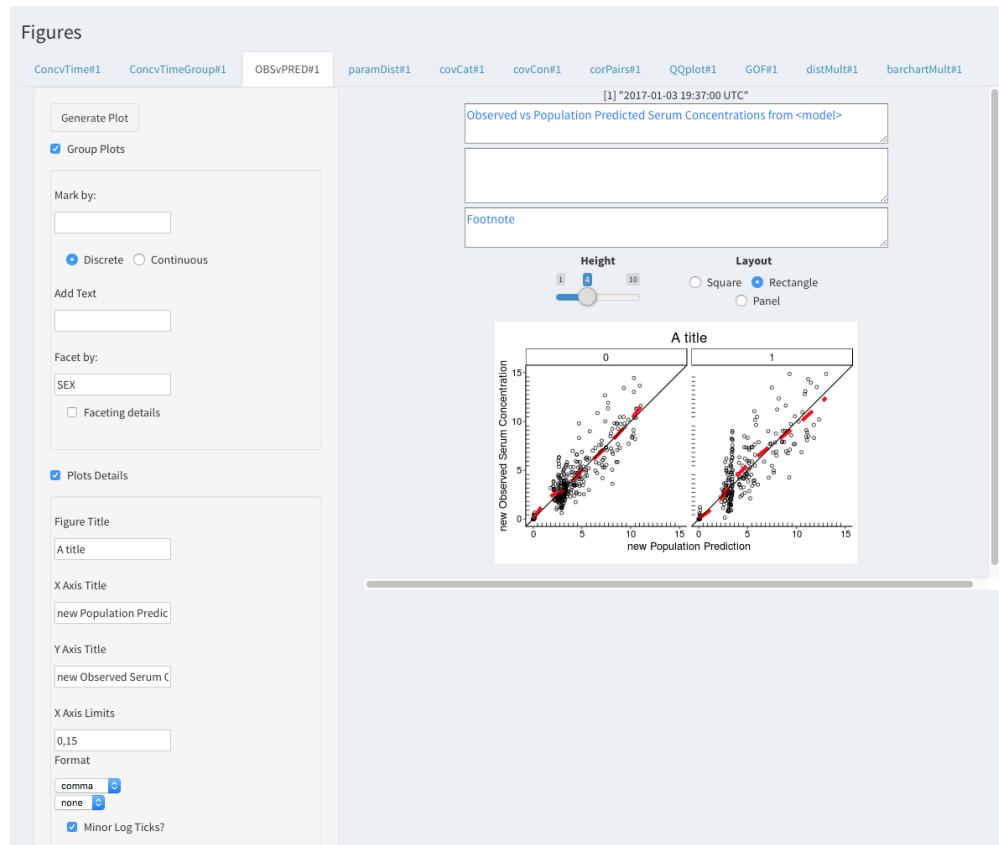


Figure 25: RID: 03 Test ID: 07

Figures

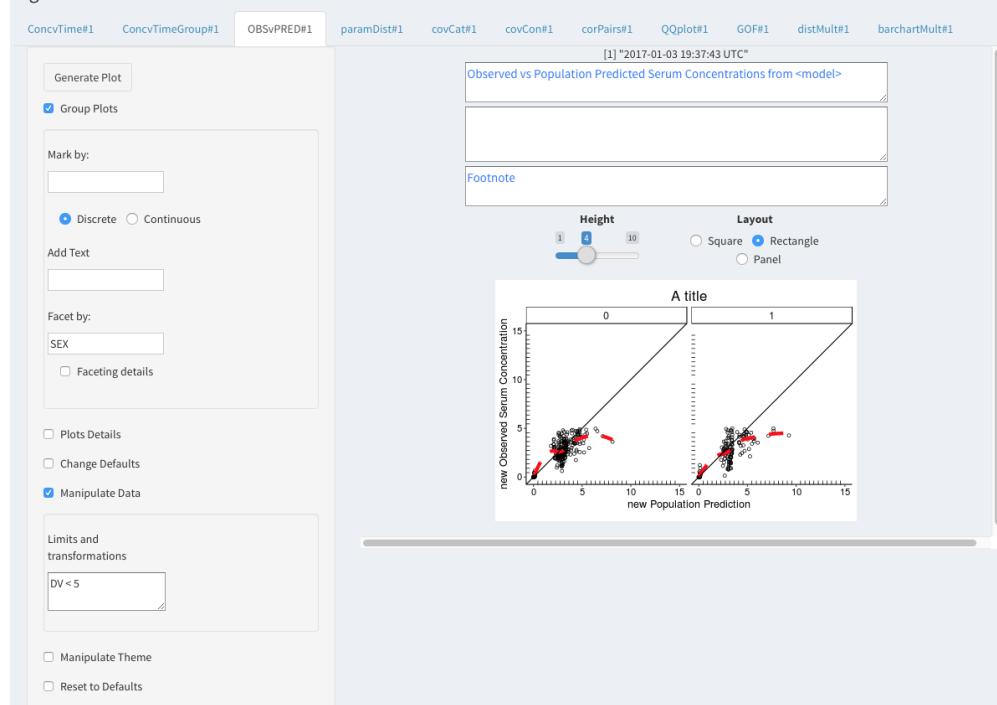


Figure 26: RID: 03 Test ID: 08

Figures

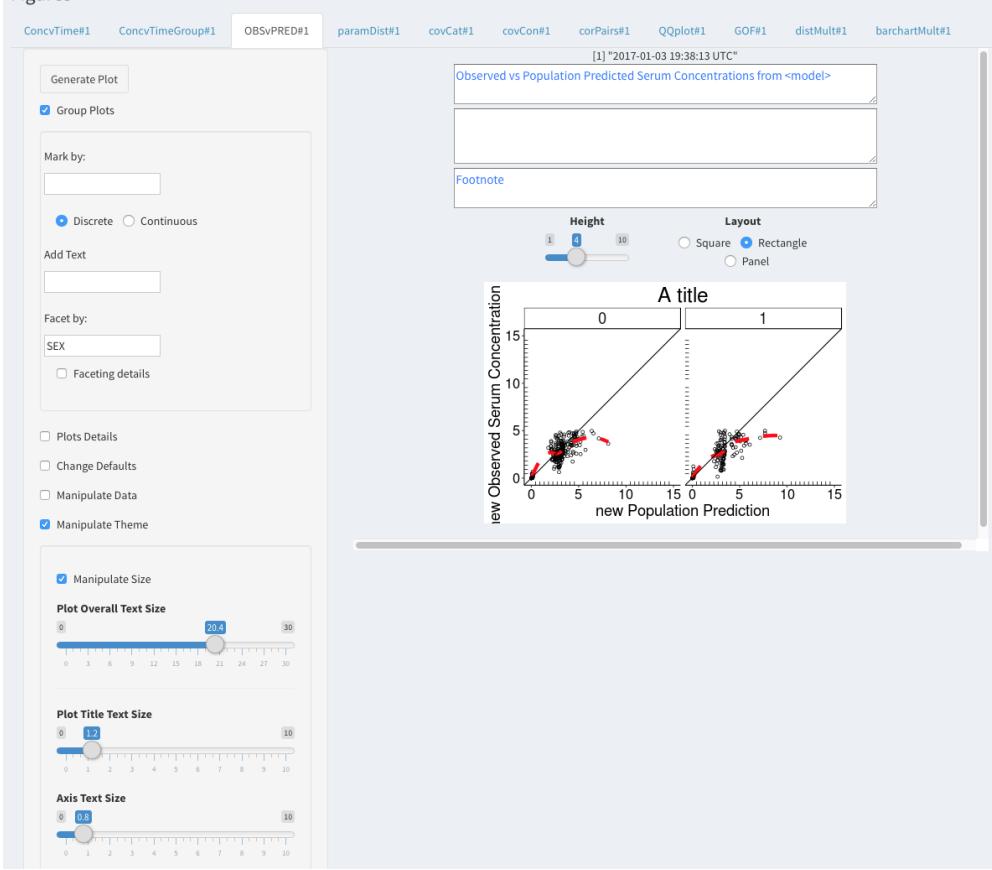


Figure 27: RID: 03 Test ID: 09

Figures

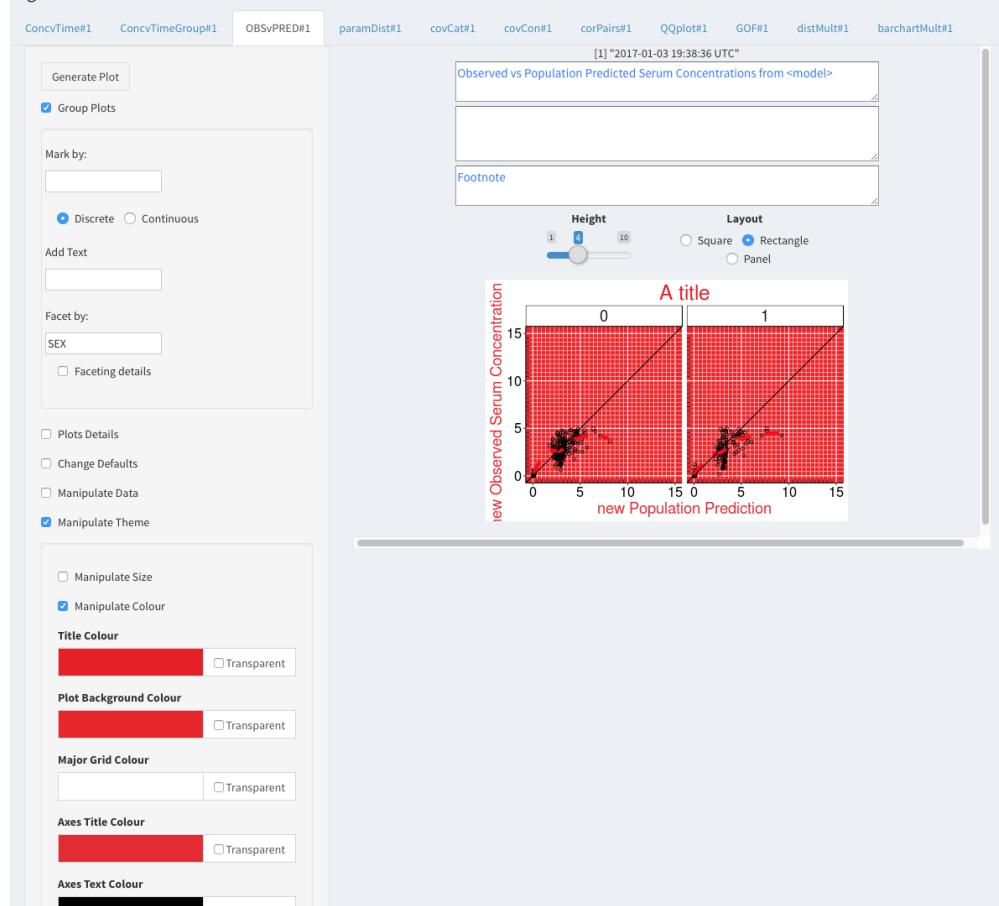


Figure 28: RID: 03 Test ID: 10

Figures

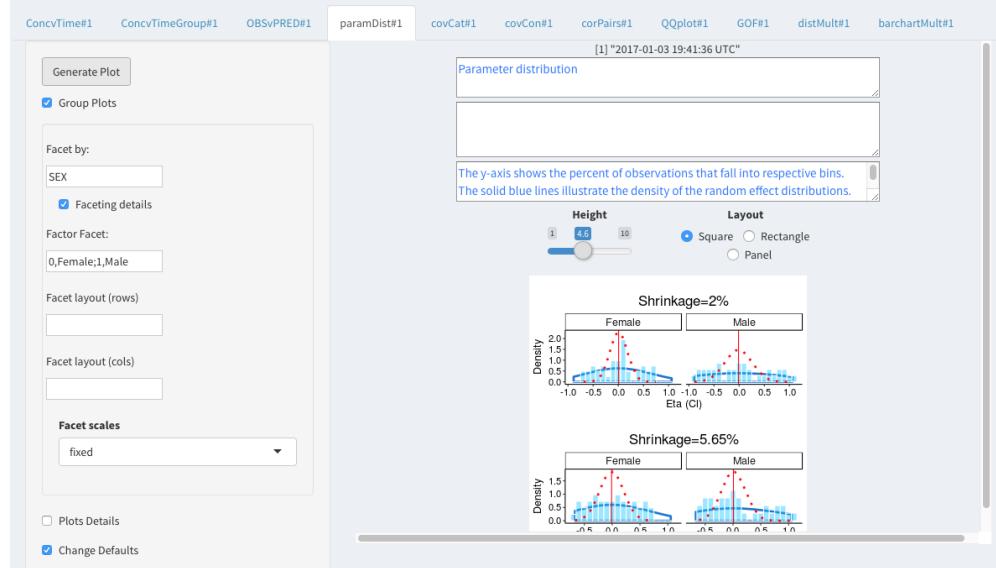


Figure 29: RID: 04 Test ID: 02

Figures

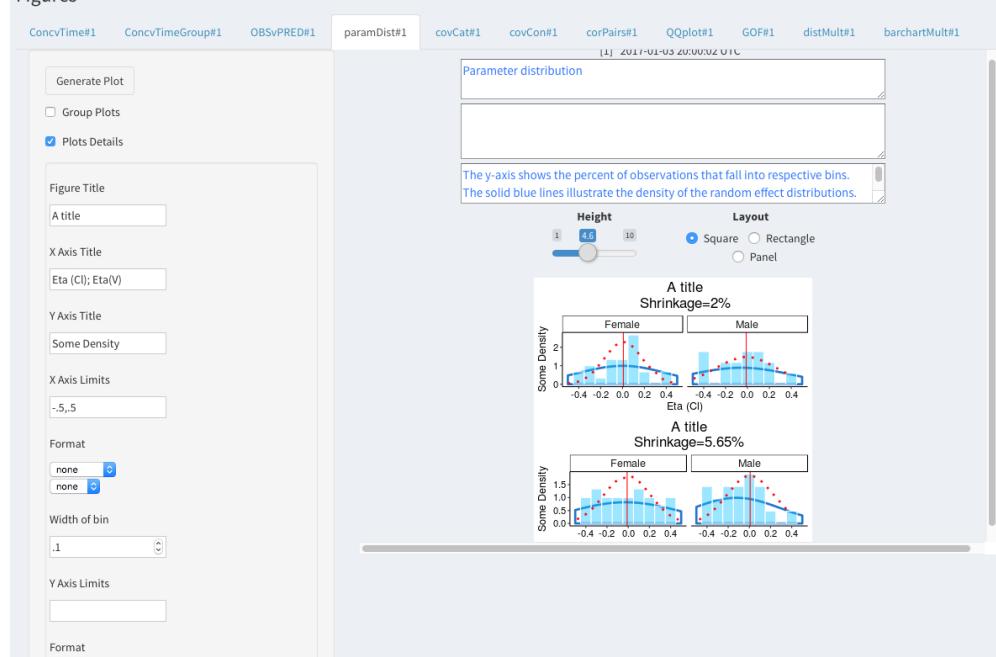


Figure 30: RID: 04 Test ID: 03

Figures

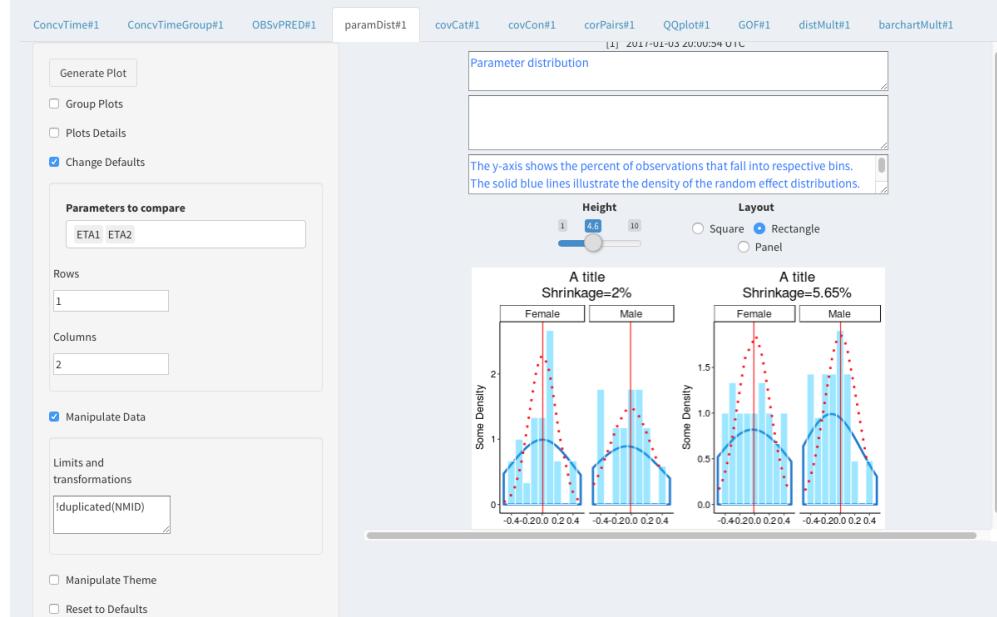


Figure 31: RID: 04 Test ID: 04

Figures



Figure 32: RID: 04 Test ID: 05

Figures

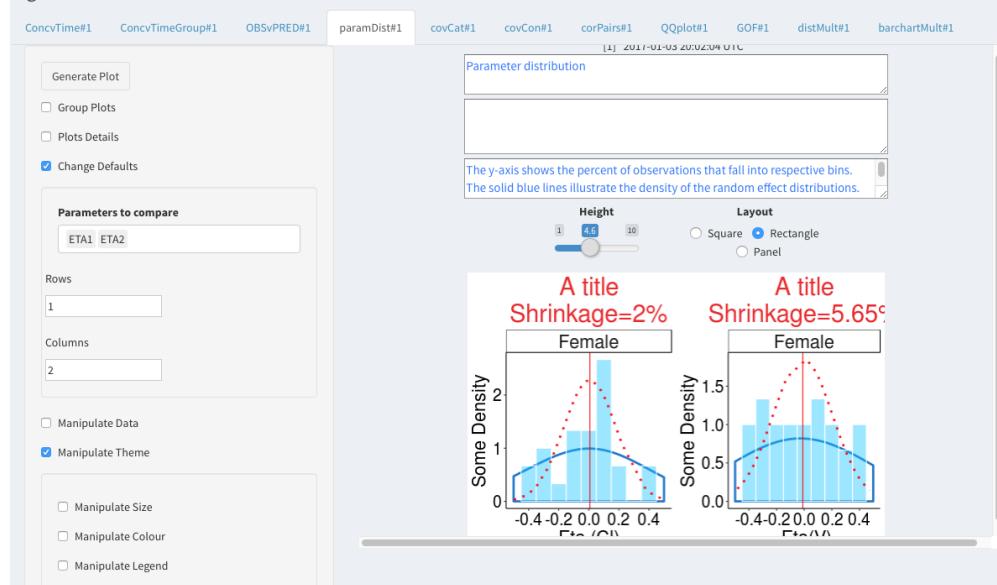


Figure 33: RID: 04 Test ID: 06

Figures

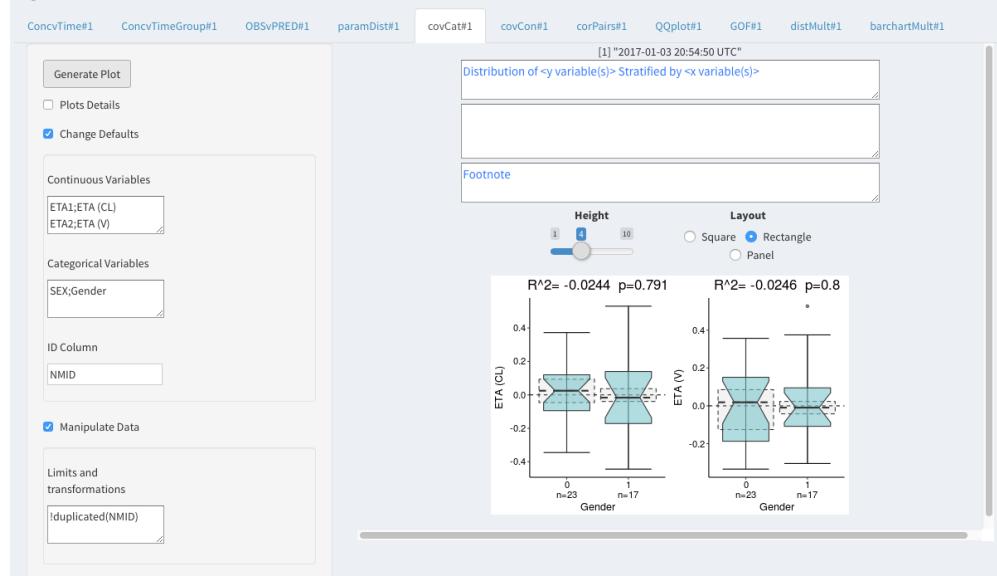


Figure 34: RID: 05 Test ID: 01

Figures



Figure 35: RID: 05 Test ID: 02

Figures

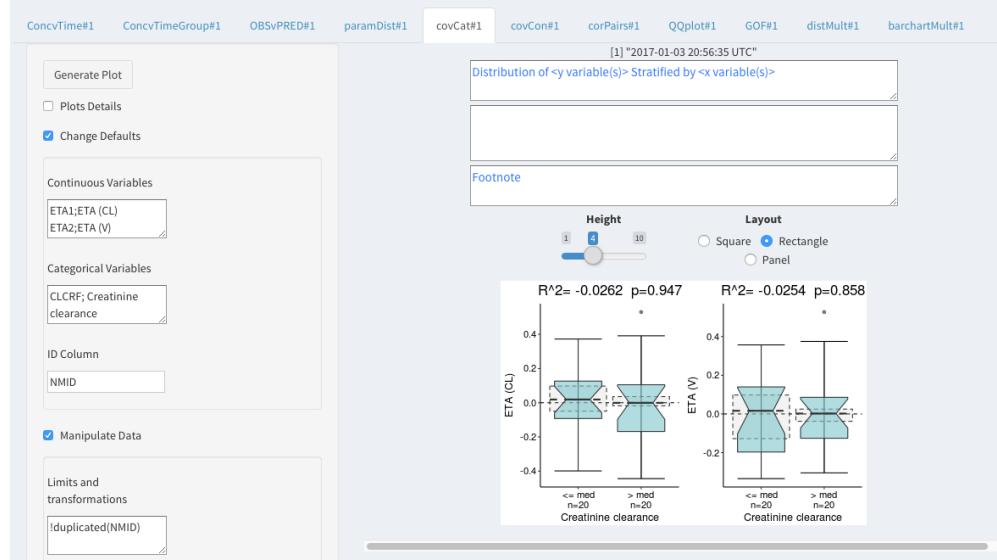


Figure 36: RID: 05 Test ID: 03

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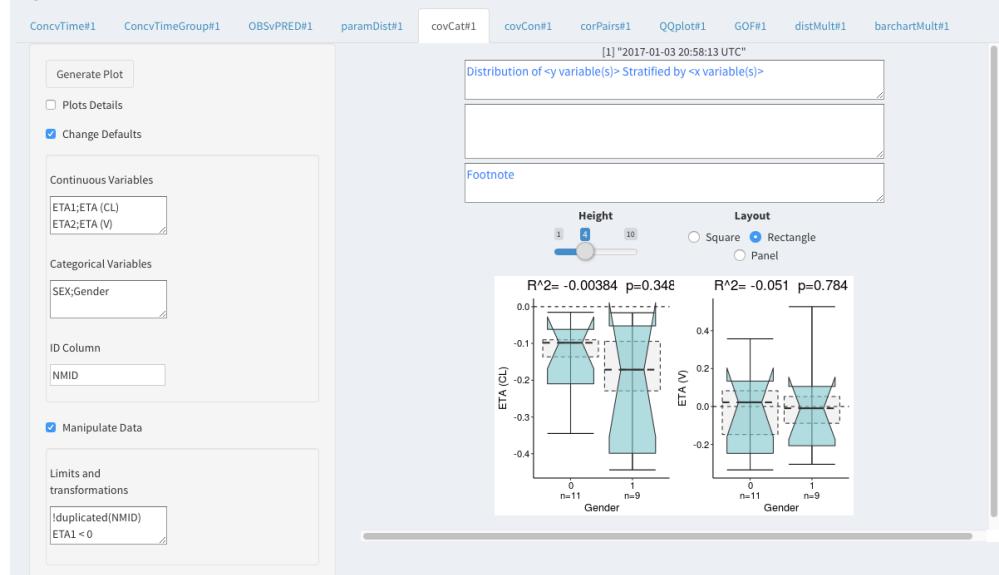


Figure 37: RID: 05 Test ID: 04

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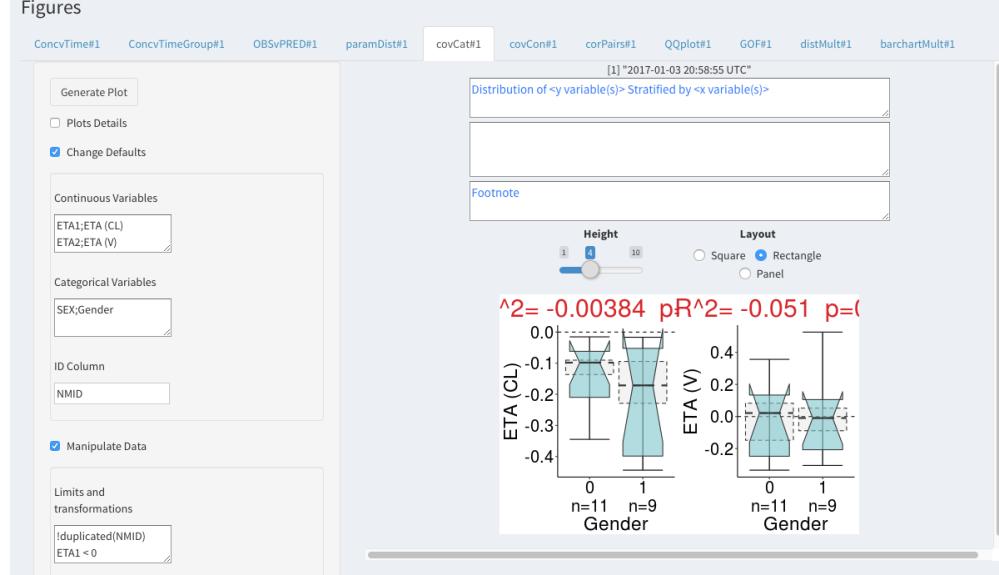


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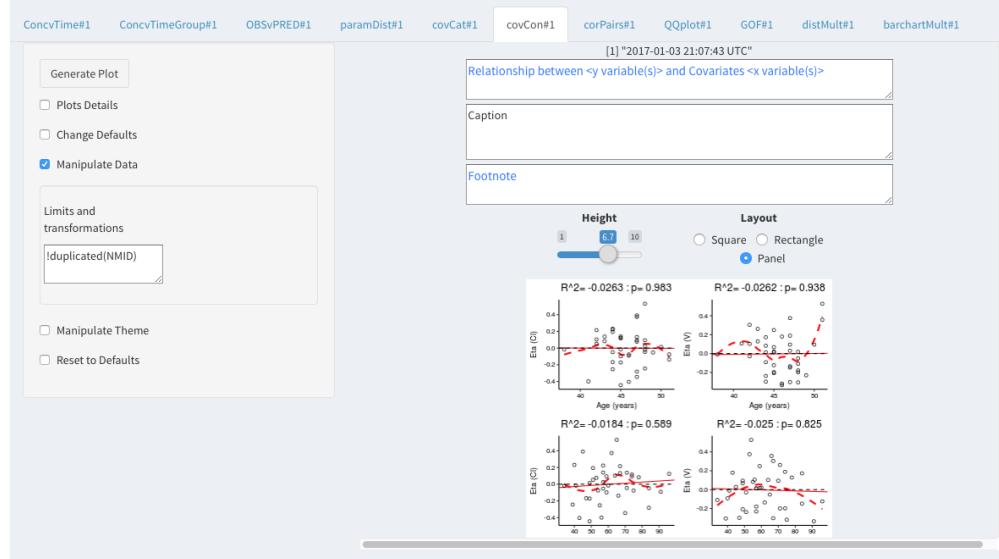


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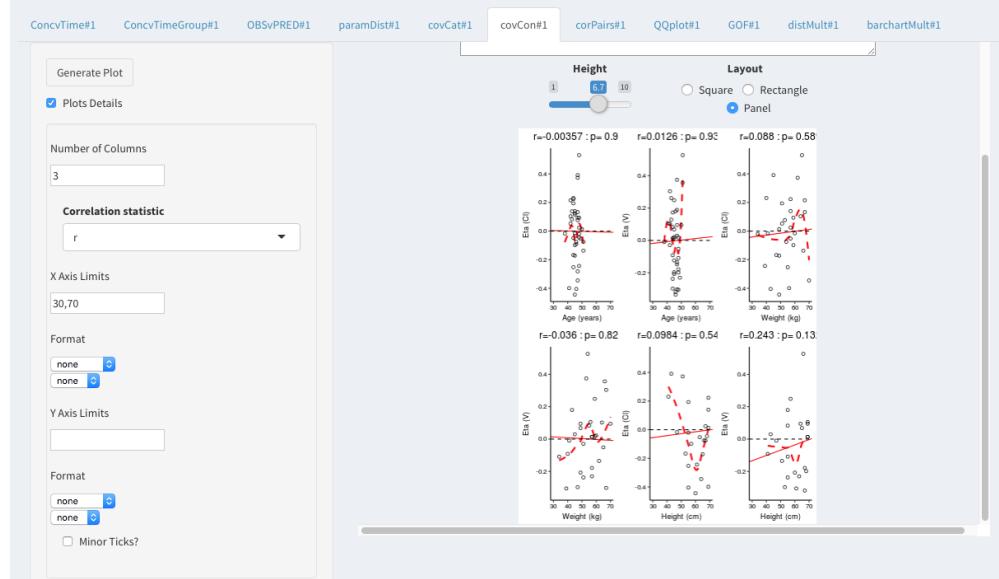


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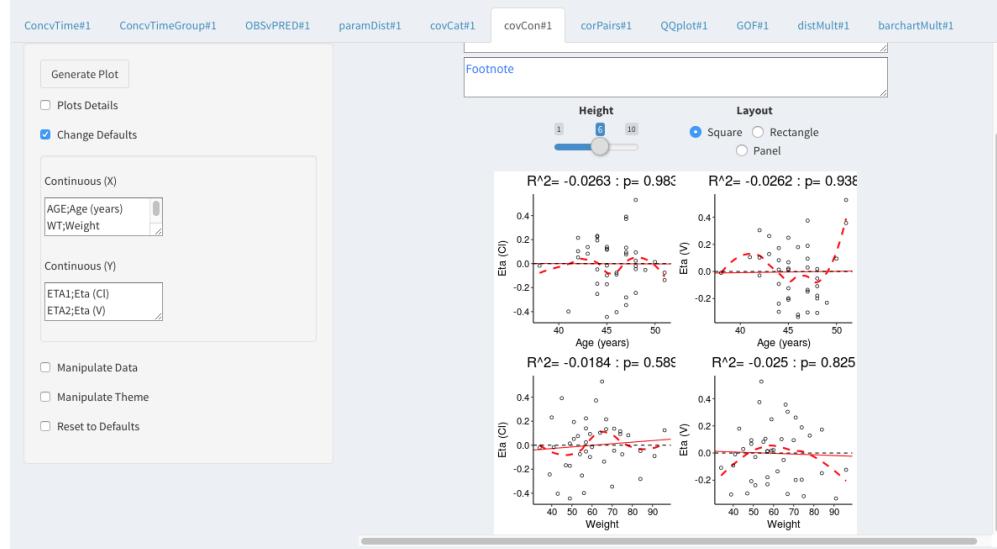


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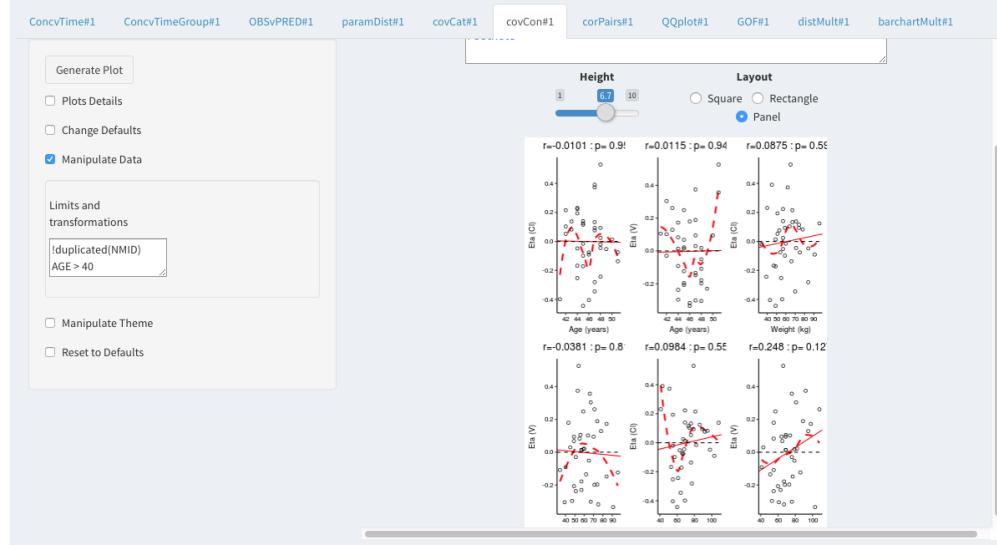


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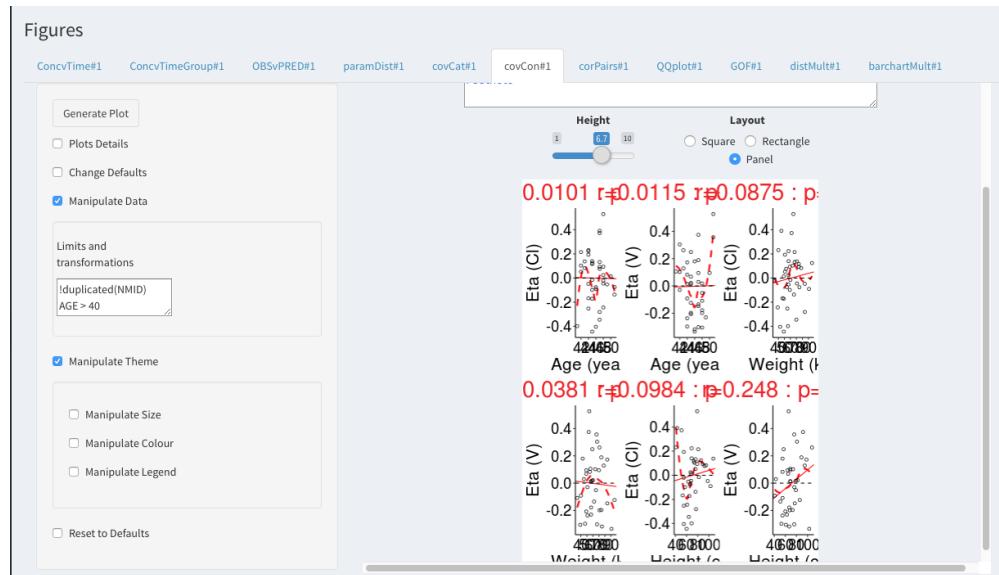


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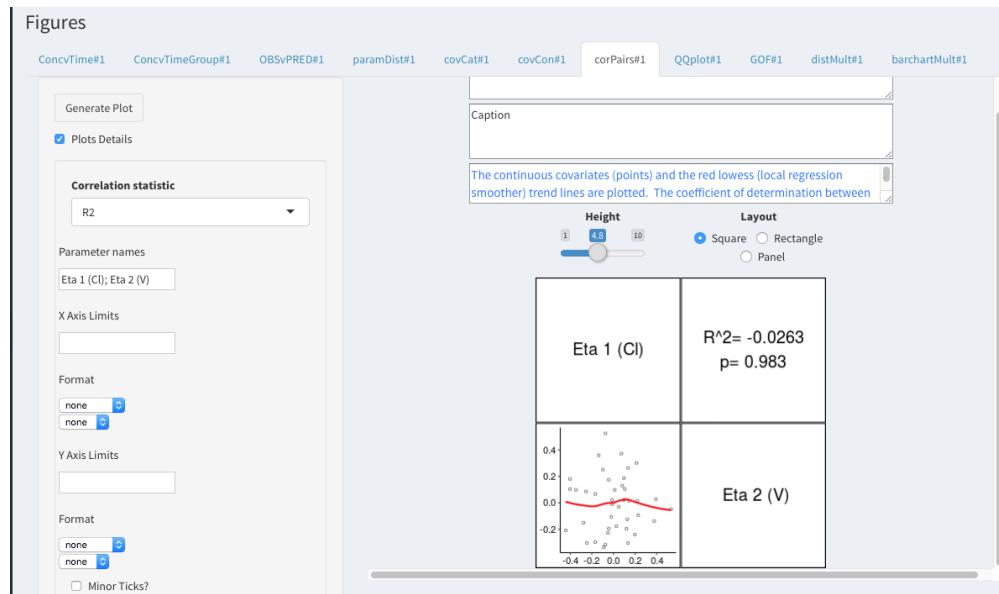


Figure 44: RID: 07 Test ID: 01

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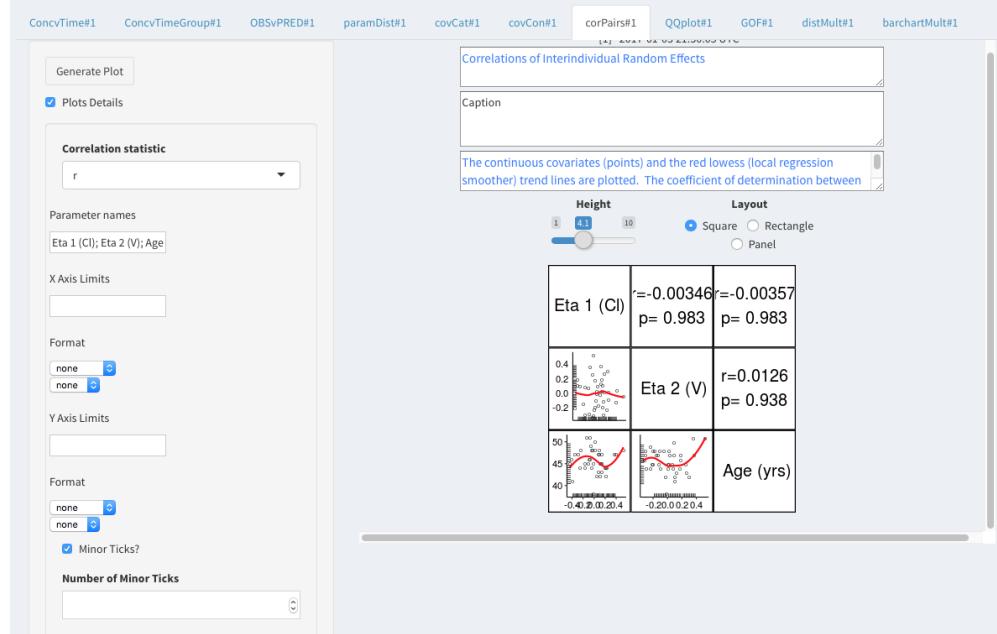


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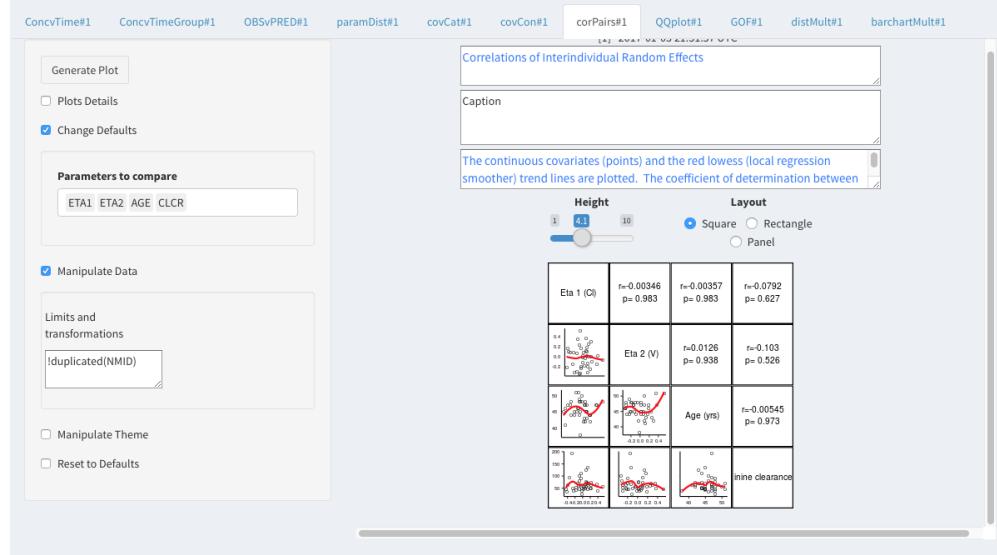


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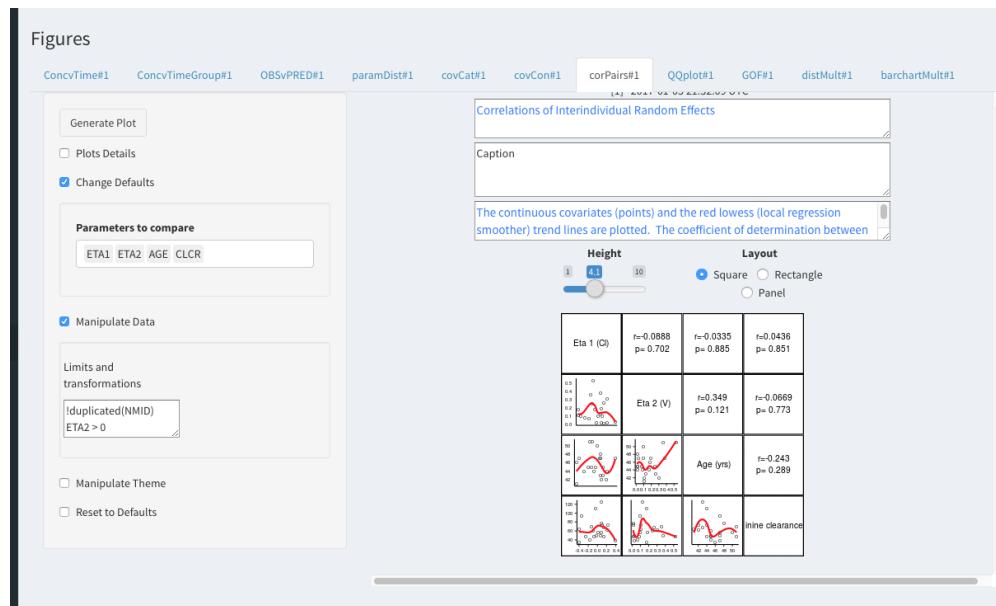


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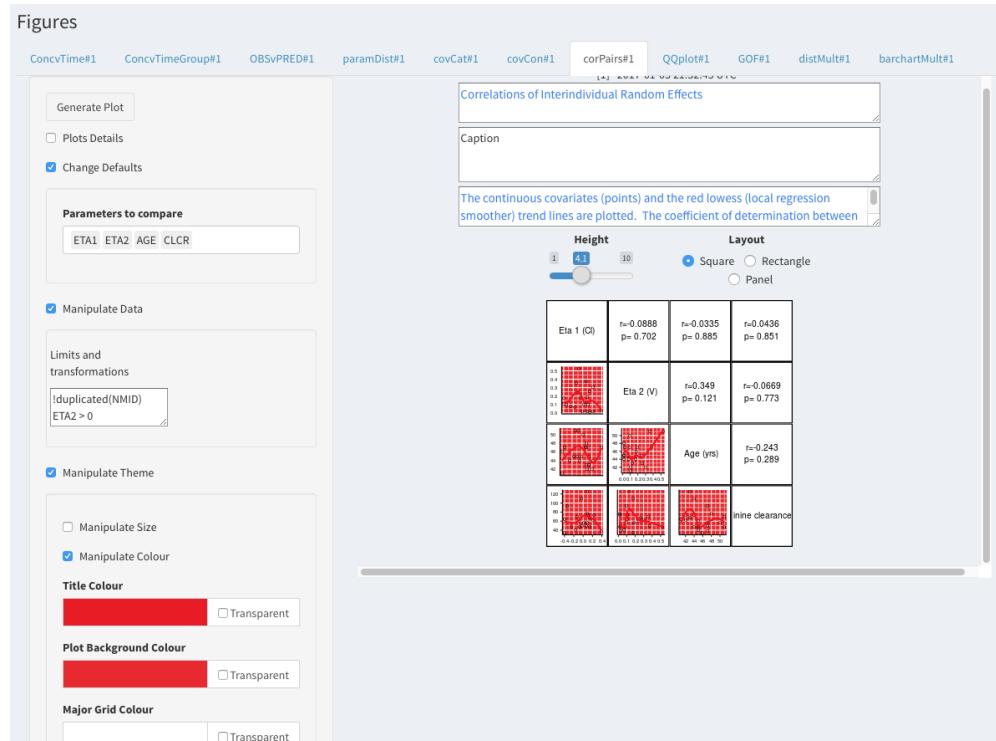


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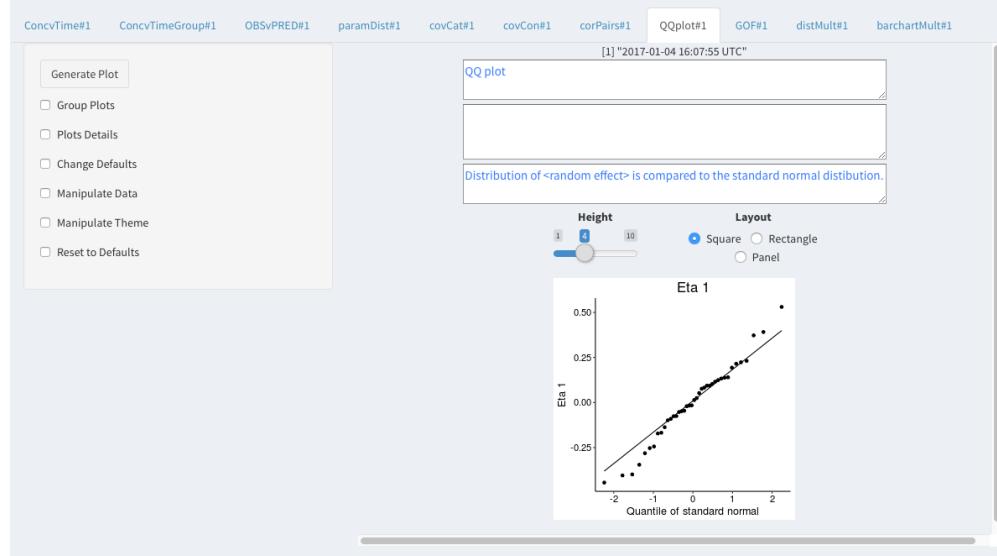


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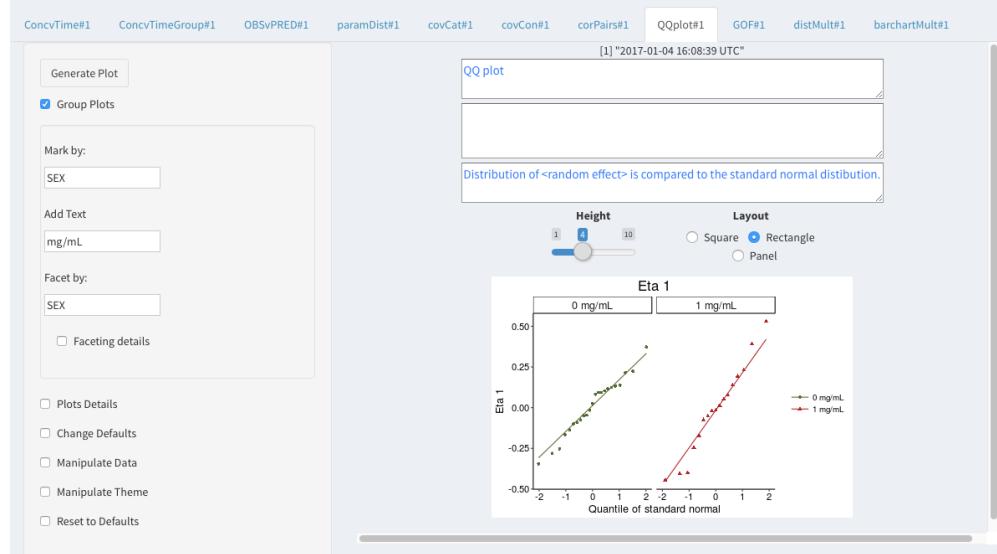


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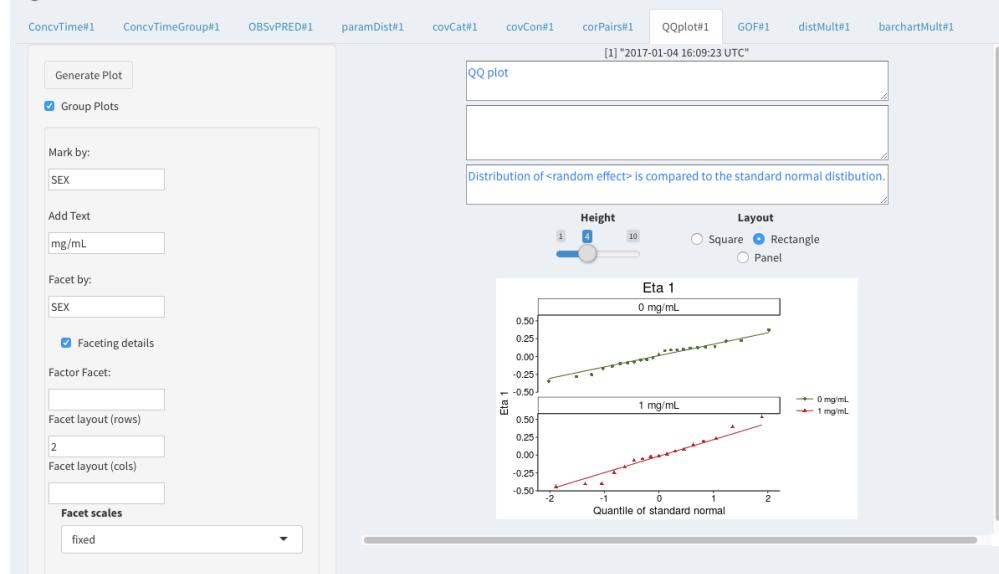


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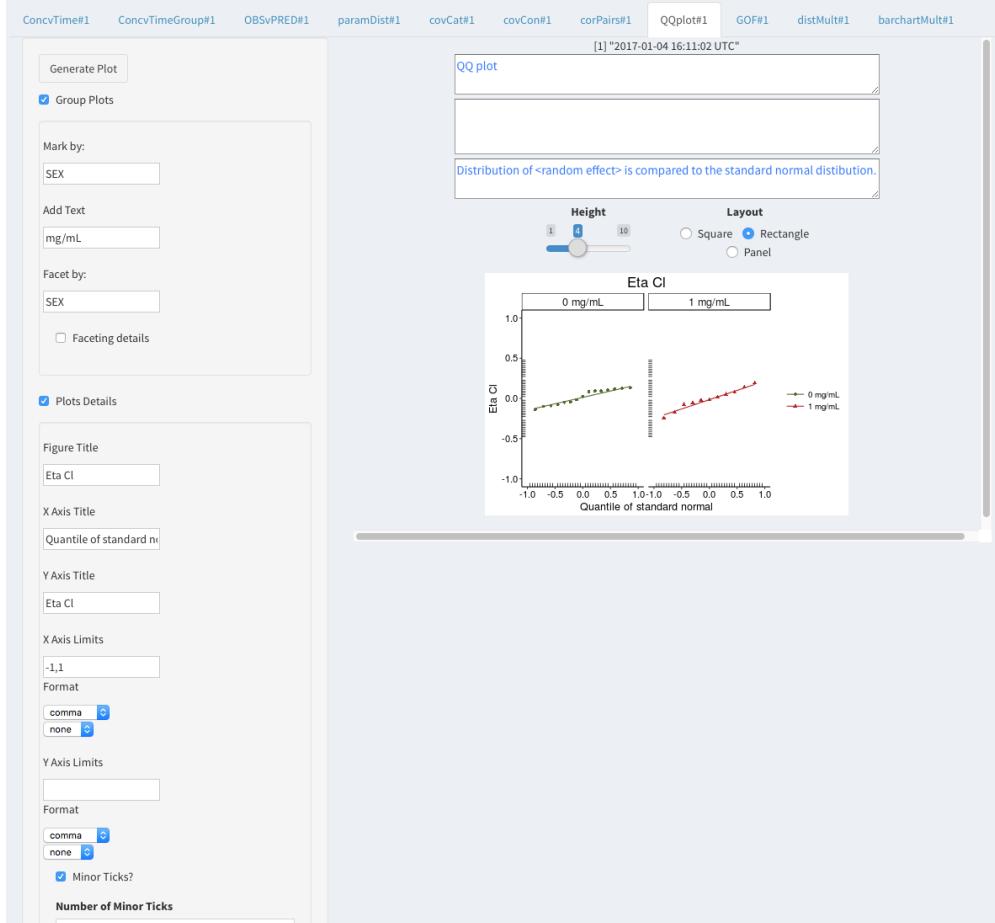


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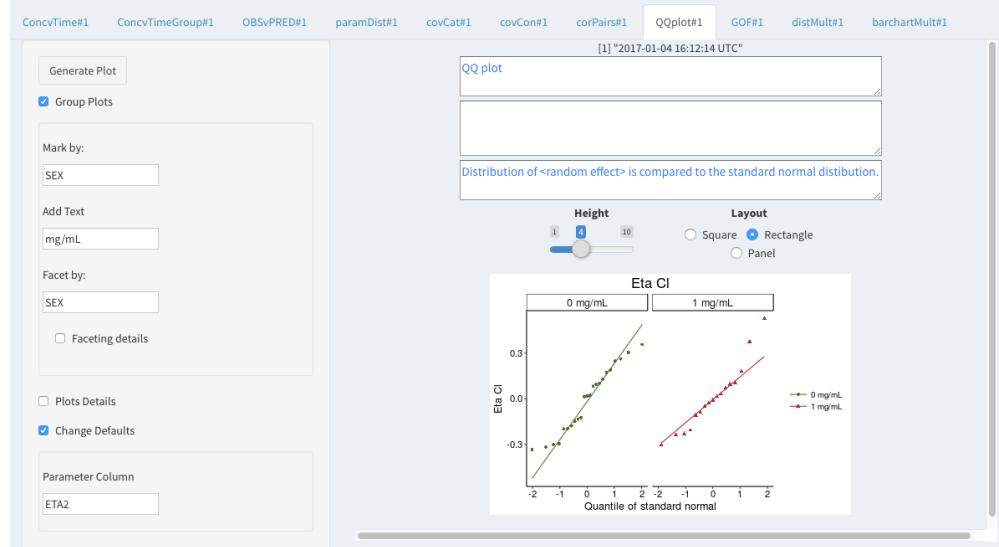


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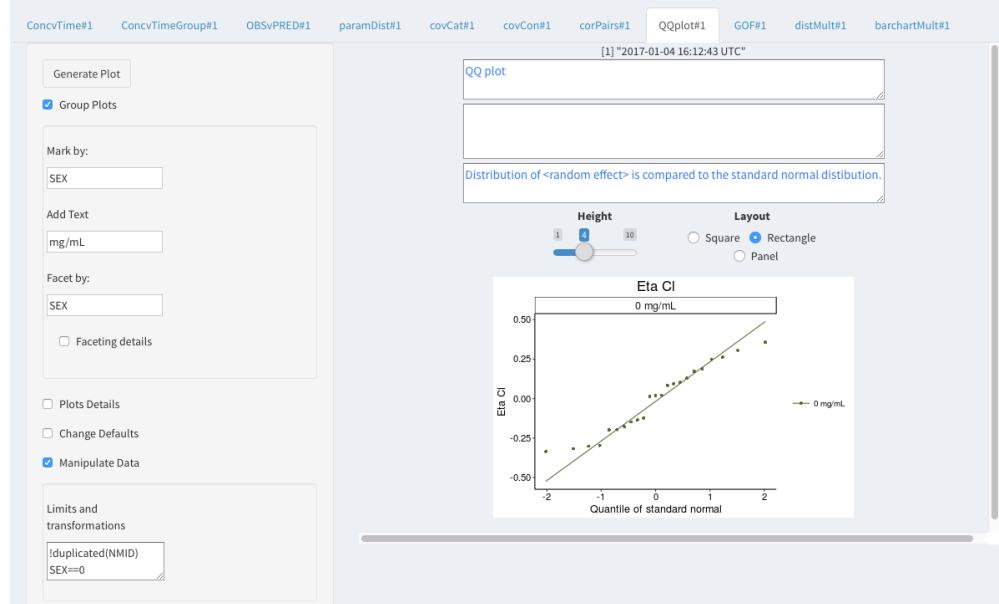


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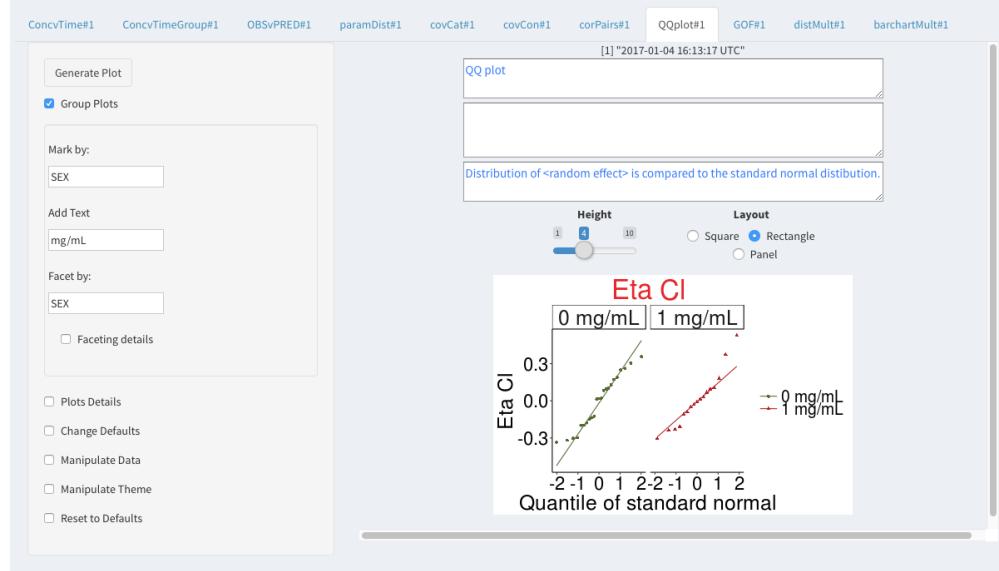


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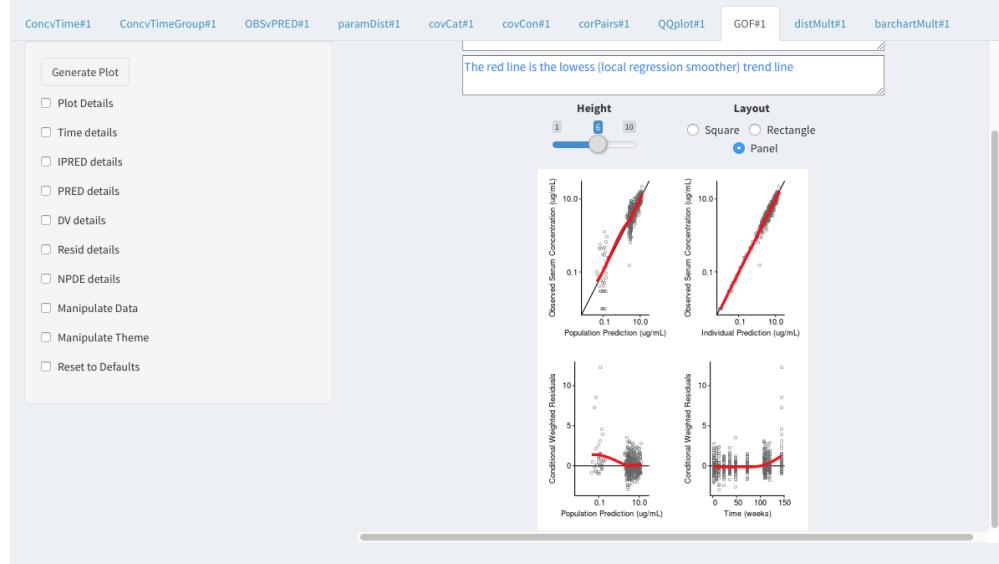


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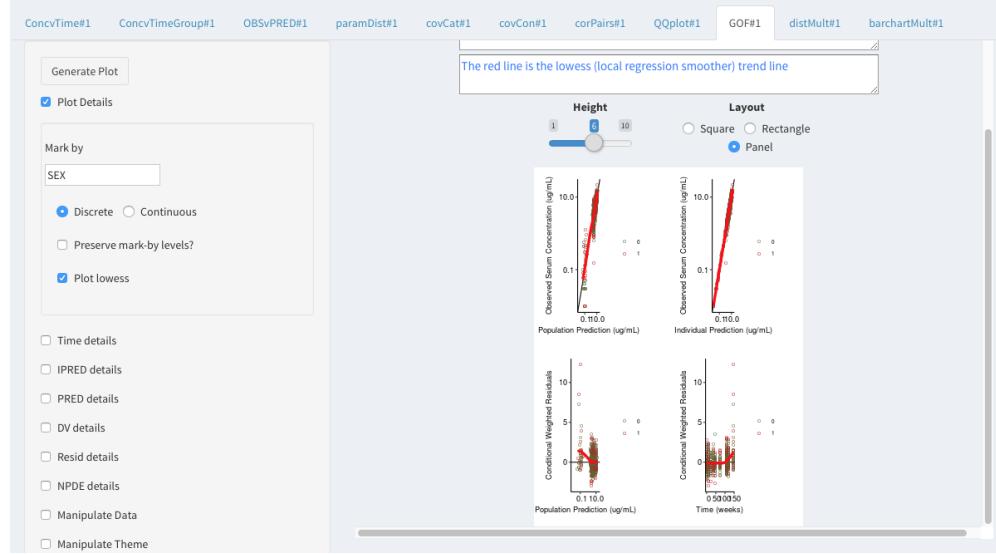


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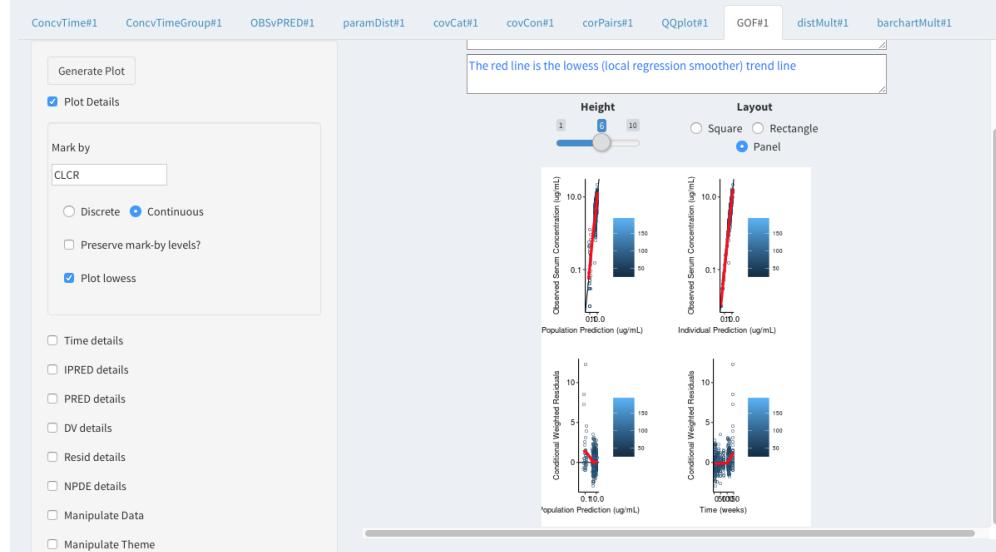


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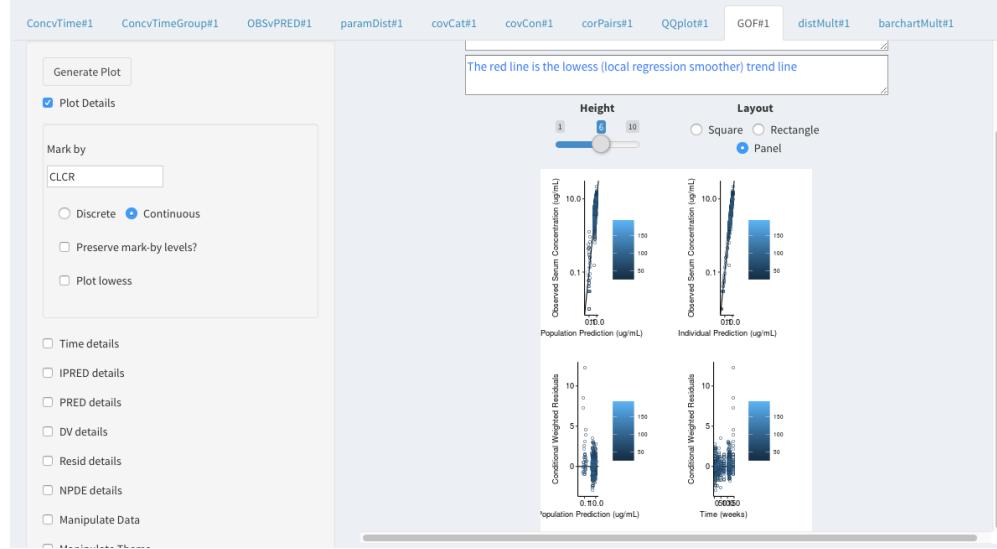


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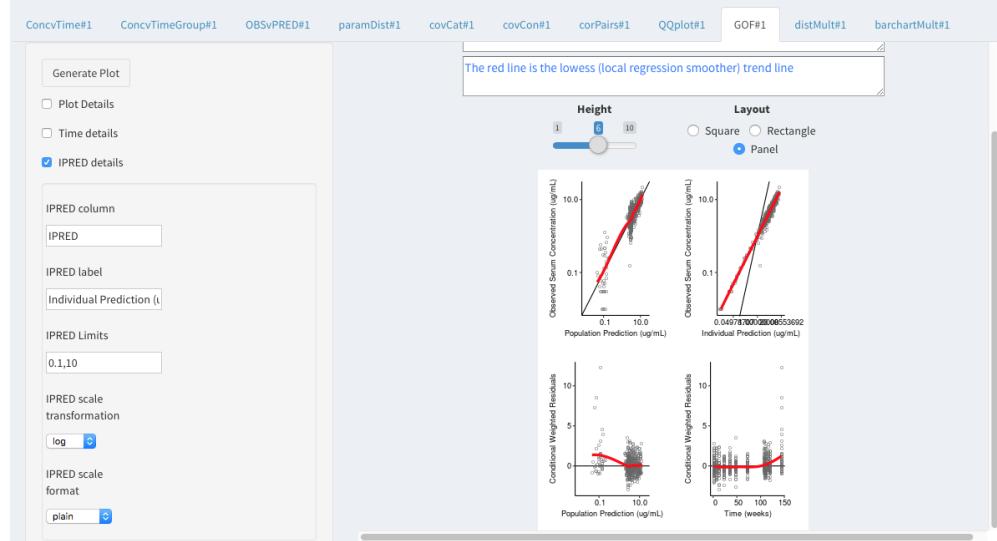


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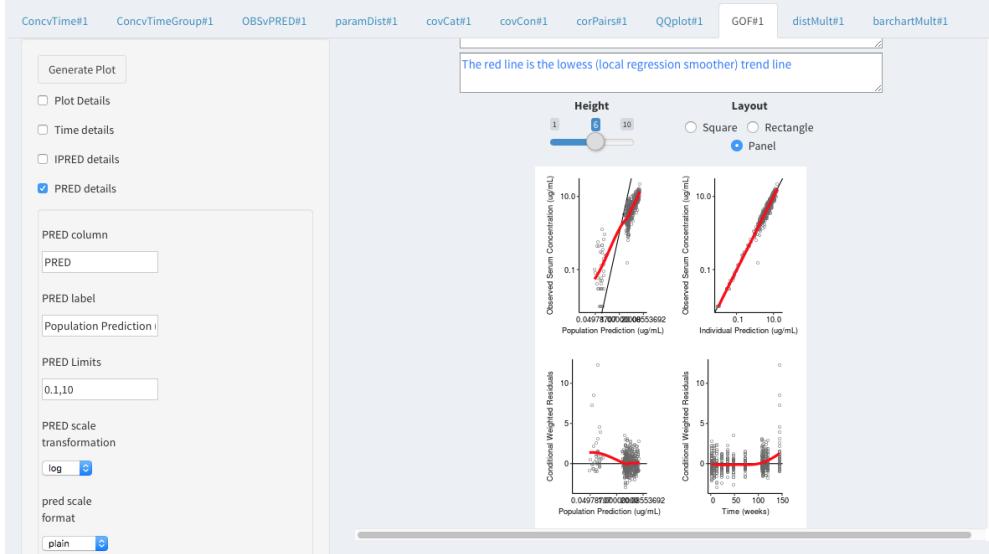


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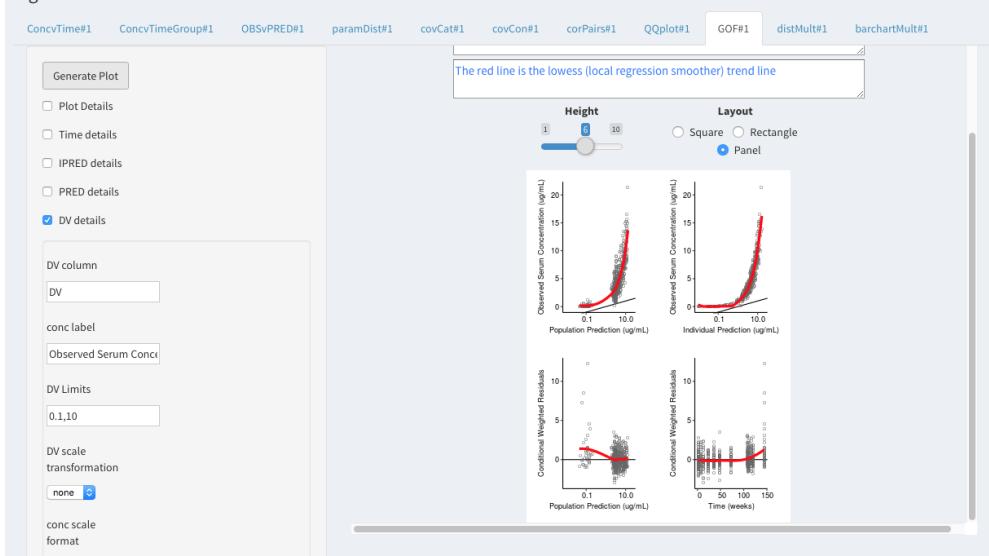


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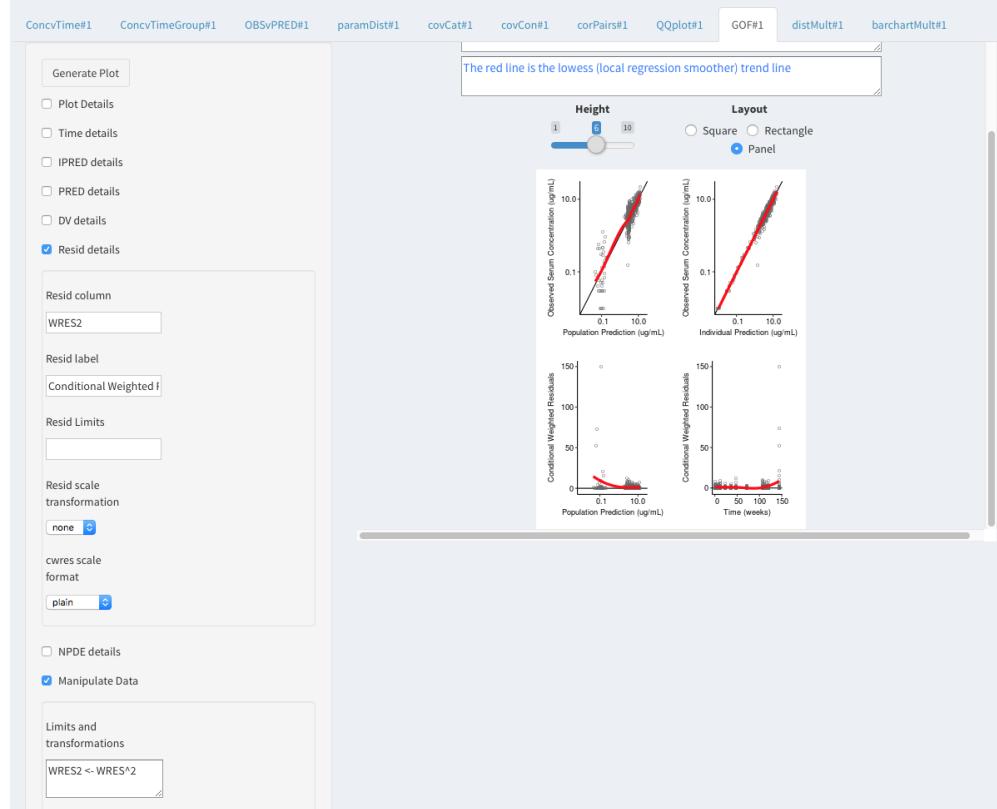


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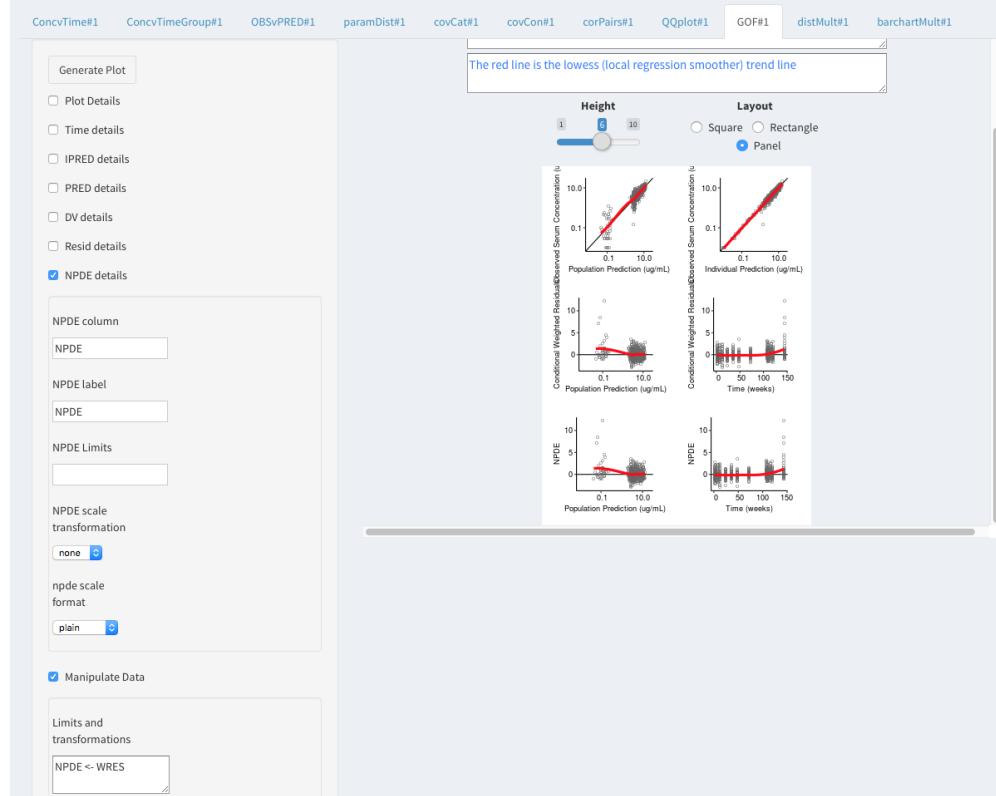


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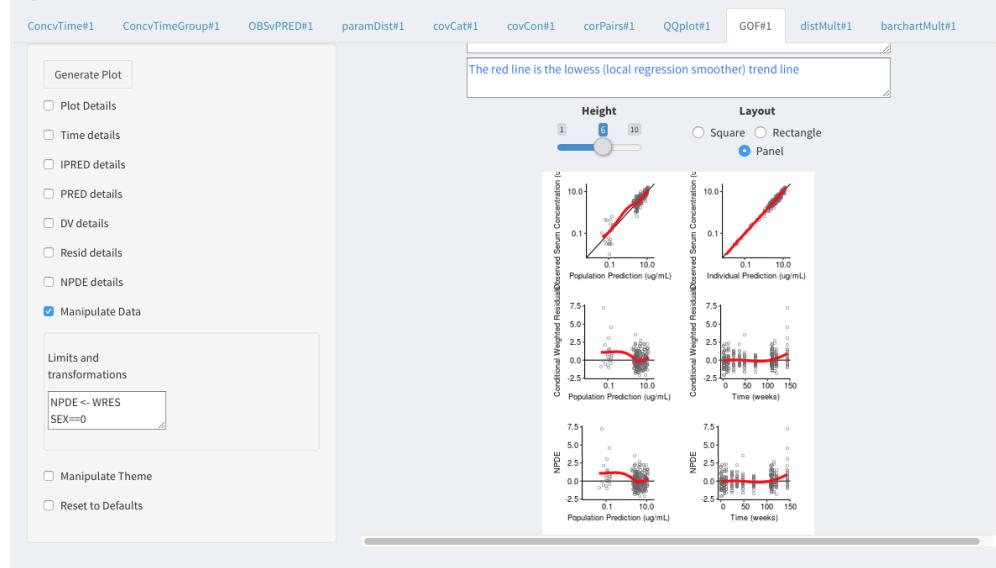


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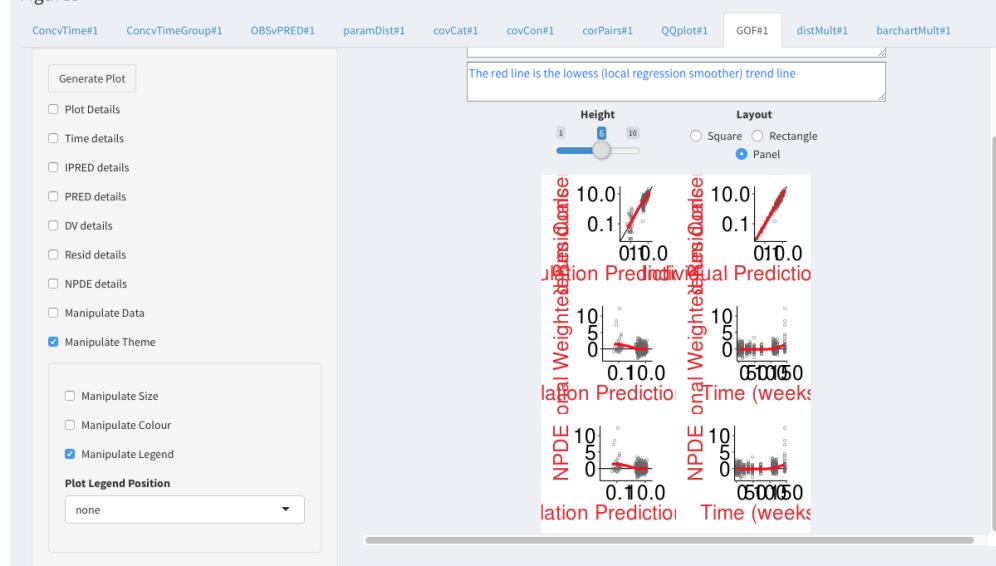


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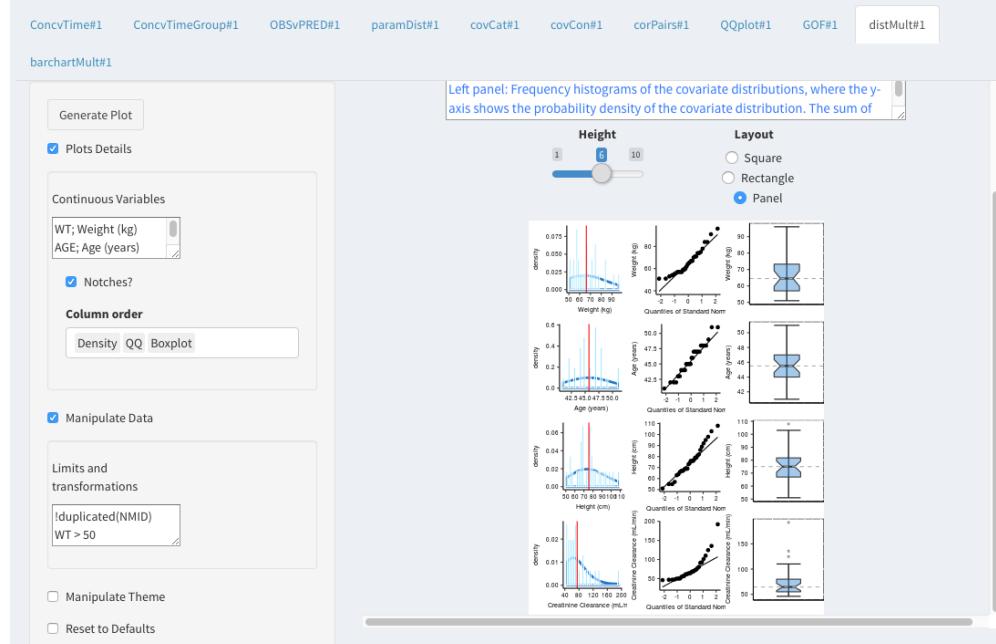


Figure 67: RID: 10 Test ID: 01

## Figures

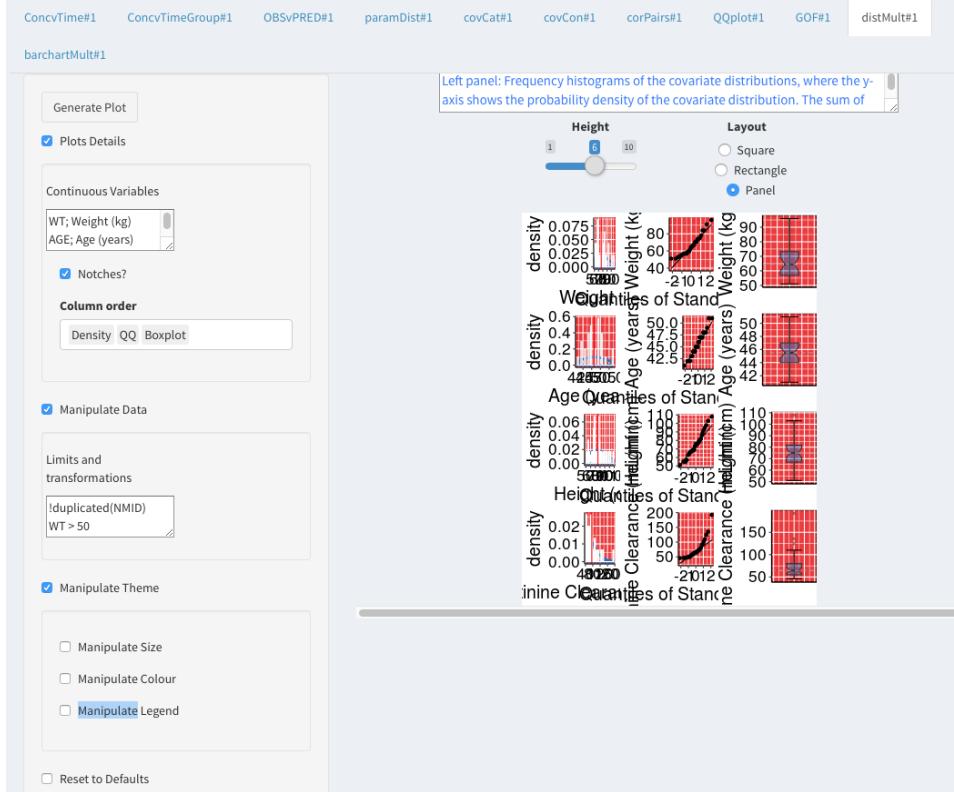


Figure 68: RID: 10 Test ID: 02

## Figures

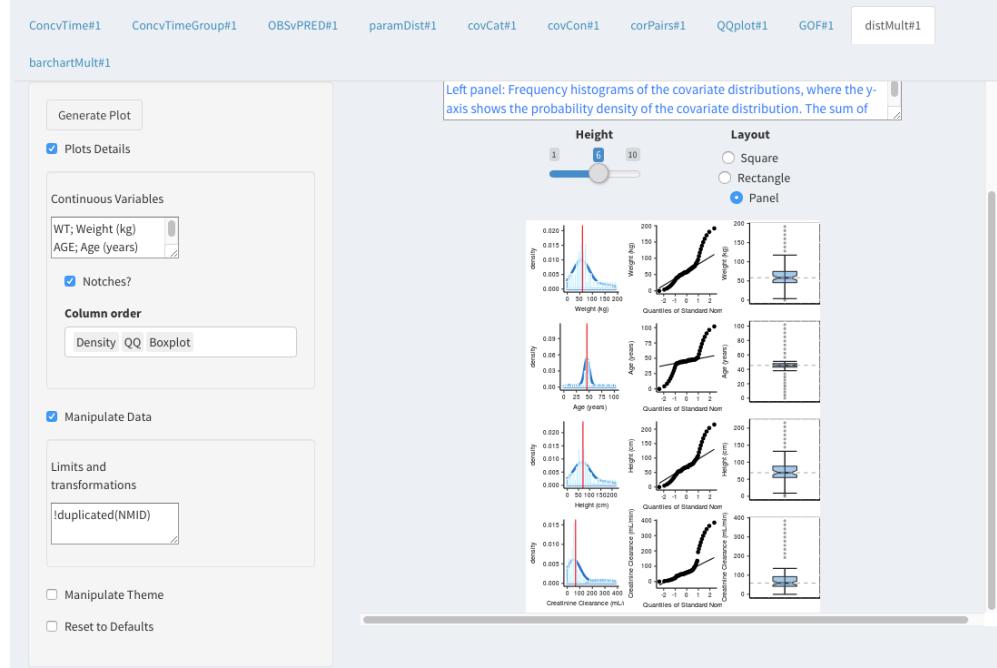


Figure 69: RID: 10 Test ID: 03

## Figures

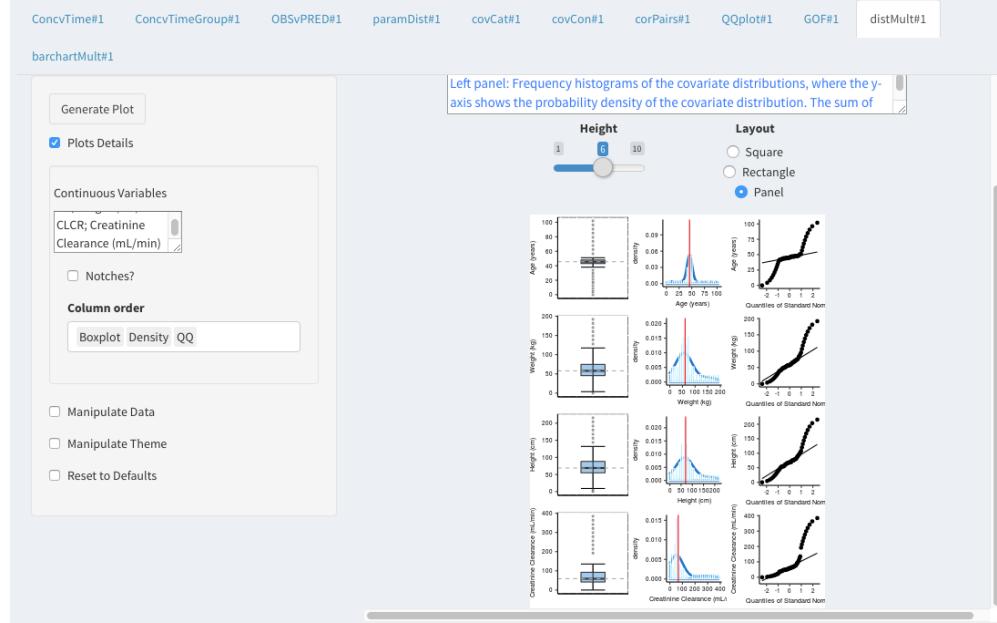


Figure 70: RID: 10 Test ID: 04

## Figures

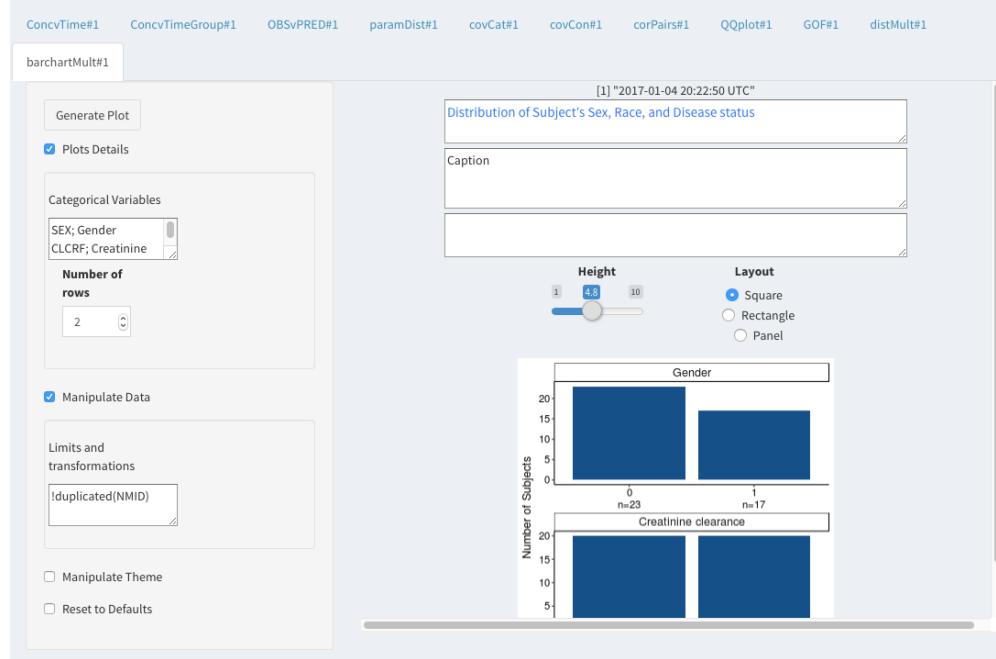


Figure 71: RID: 11 Test ID: 01

## Figures

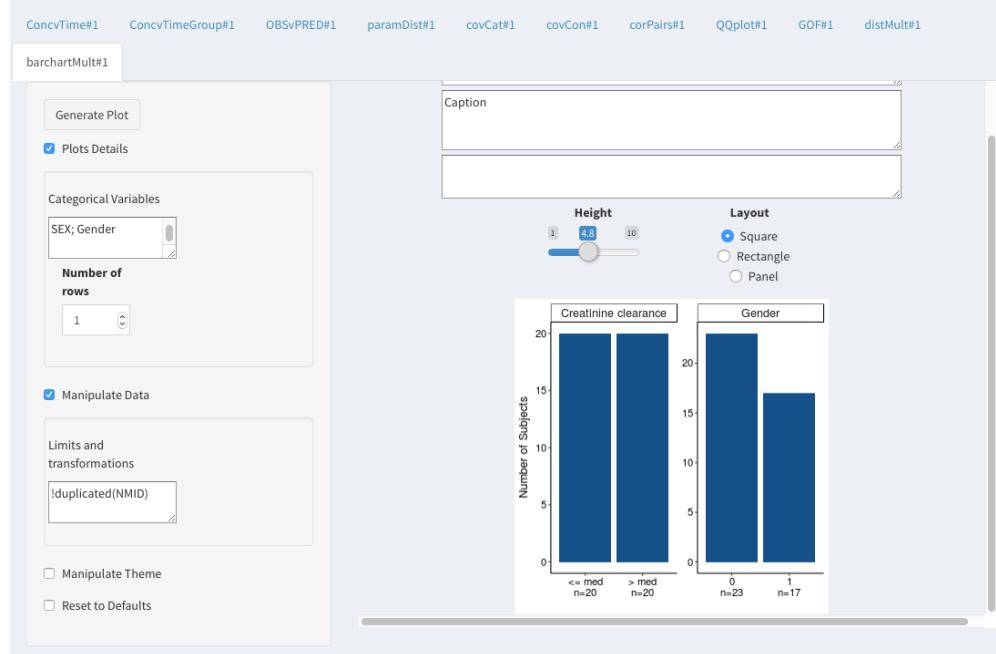


Figure 72: RID: 11 Test ID: 02

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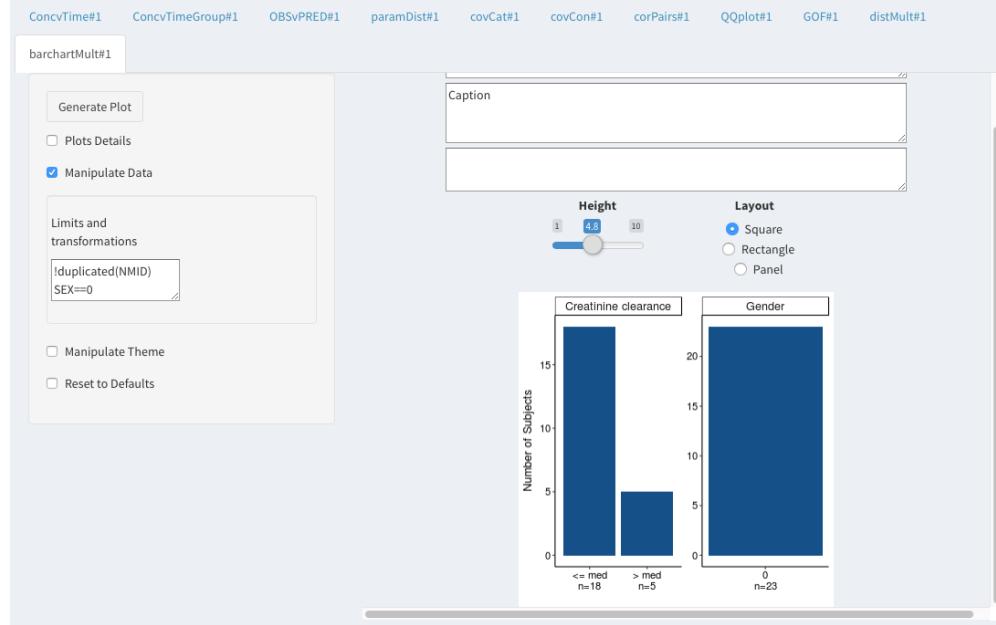


Figure 73: RID: 11 Test ID: 03

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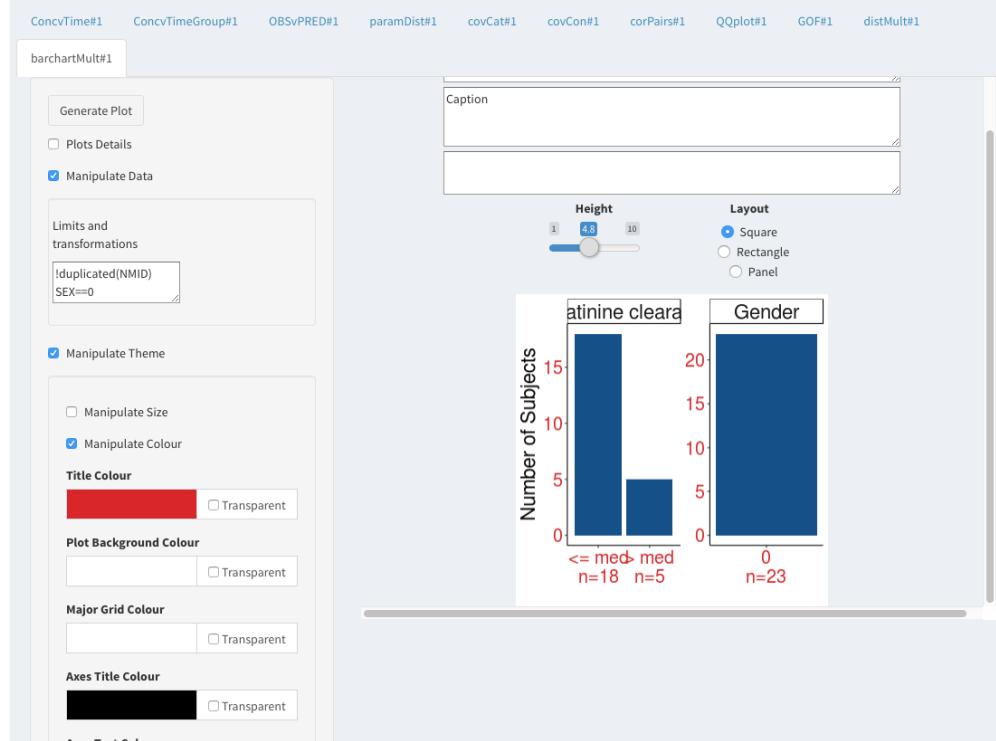


Figure 74: RID: 11 Test ID: 04

Figures

ConcvTime#1	ConcvTimeGroup#1	OBSvPRED#1	paramDist#1	covCat#1	covCon#1	corPairs#1	QQplot#1	GOF#1	distMult#1																																																																																																				
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<p><b>VPC Data    Additional data specification    Figure</b></p> <table border="1"> <tr> <td><b>Manipulation code</b></td> <td><b>Generate VPC data</b></td> </tr> <tr> <td>1 newcol &lt;- 1</td> <td></td> </tr> <tr> <td colspan="2"><b>Run # for simulations</b></td> </tr> <tr> <td colspan="2">511</td> </tr> <tr> <td colspan="2"><b>Column names for simulation table</b></td> </tr> <tr> <td colspan="2">ID, TIME, IPRED, DV, PRED, RES, WRES</td> </tr> <tr> <td colspan="2"><b>Number of subproblems</b></td> </tr> <tr> <td colspan="2">1000</td> </tr> <tr> <td colspan="2"><b>Source file location for VPC run</b></td> </tr> <tr> <td colspan="2">poppk_wcovs.csv</td> </tr> <tr> <td colspan="2"><b>DV in source file (observed)</b></td> </tr> <tr> <td colspan="2">DV</td> </tr> <tr> <td colspan="2"><b>Source file columns to to keep</b></td> </tr> <tr> <td colspan="2"></td> </tr> <tr> <td colspan="2"><b>Choose merge key (comma separated)</b></td> </tr> <tr> <td colspan="2">ID, TIME</td> </tr> <tr> <td colspan="2"> <input checked="" type="checkbox"/> Sort by study, patient, and time?  <input type="checkbox"/> Rename to defaults?         </td> </tr> </table>										<b>Manipulation code</b>	<b>Generate VPC data</b>	1 newcol <- 1		<b>Run # for simulations</b>		511		<b>Column names for simulation table</b>		ID, TIME, IPRED, DV, PRED, RES, WRES		<b>Number of subproblems</b>		1000		<b>Source file location for VPC run</b>		poppk_wcovs.csv		<b>DV in source file (observed)</b>		DV		<b>Source file columns to to keep</b>				<b>Choose merge key (comma separated)</b>		ID, TIME		<input checked="" type="checkbox"/> Sort by study, patient, and time? <input type="checkbox"/> Rename to defaults?																																																																			
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<p><b>Number of rows of merged dataset to preview</b></p> <table border="1"> <tr> <td>10</td> <td>(<input type="button" value="▼"/></td> </tr> <tr> <td colspan="2"> <table border="1"> <thead> <tr> <th>ID</th> <th>TIME</th> <th>IPRED</th> <th>DV</th> <th>PRED</th> <th>RES</th> <th>WRES</th> <th>IREP</th> <th>C</th> <th>AMT</th> <th>II</th> <th>ADDL</th> <th>RATE</th> <th>HT</th> <th>WT</th> <th>CLCR</th> <th>SEX</th> <th>AGE</th> <th>DVobs</th> <th>newcol</th> </tr> </thead> <tbody> <tr> <td>1 1.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>1 0</td> <td>900</td> <td>12</td> <td>9</td> <td>300</td> <td>103</td> <td>91</td> <td>101.48</td> <td>0</td> <td>46</td> <td>0.00</td> <td>1.00</td> </tr> <tr> <td>2 1.00</td> <td>1.50</td> <td>4.53</td> <td>5.79</td> <td>4.05</td> <td>1.74</td> <td>0.00</td> <td>1 0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>103</td> <td>91</td> <td>101.48</td> <td>0</td> <td>46</td> <td>6.99</td> <td>1.00</td> </tr> <tr> <td>3 1.00</td> <td>3.00</td> <td>7.37</td> <td>9.29</td> <td>7.37</td> <td>1.92</td> <td>0.00</td> <td>1 0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>103</td> <td>91</td> <td>101.48</td> <td>0</td> <td>46</td> <td>12.66</td> <td>1.00</td> </tr> <tr> <td>4 1.00</td> <td>8.00</td> <td>1.57</td> <td>1.72</td> <td>3.82</td> <td>-2.10</td> <td>0.00</td> <td>1 0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>103</td> <td>91</td> <td>101.48</td> <td>0</td> <td>46</td> <td>5.31</td> <td>1.00</td> </tr> </tbody> </table> </td> </tr> </table>										10	( <input type="button" value="▼"/>	<table border="1"> <thead> <tr> <th>ID</th> <th>TIME</th> <th>IPRED</th> <th>DV</th> <th>PRED</th> <th>RES</th> <th>WRES</th> <th>IREP</th> <th>C</th> <th>AMT</th> <th>II</th> <th>ADDL</th> <th>RATE</th> <th>HT</th> <th>WT</th> <th>CLCR</th> <th>SEX</th> <th>AGE</th> <th>DVobs</th> <th>newcol</th> </tr> </thead> <tbody> <tr> <td>1 1.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>1 0</td> <td>900</td> <td>12</td> <td>9</td> <td>300</td> <td>103</td> <td>91</td> <td>101.48</td> <td>0</td> <td>46</td> <td>0.00</td> <td>1.00</td> </tr> <tr> <td>2 1.00</td> <td>1.50</td> <td>4.53</td> <td>5.79</td> <td>4.05</td> <td>1.74</td> <td>0.00</td> <td>1 0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>103</td> <td>91</td> <td>101.48</td> <td>0</td> <td>46</td> <td>6.99</td> <td>1.00</td> </tr> <tr> <td>3 1.00</td> <td>3.00</td> <td>7.37</td> <td>9.29</td> <td>7.37</td> <td>1.92</td> <td>0.00</td> <td>1 0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>103</td> <td>91</td> <td>101.48</td> <td>0</td> <td>46</td> <td>12.66</td> <td>1.00</td> </tr> <tr> <td>4 1.00</td> <td>8.00</td> <td>1.57</td> <td>1.72</td> <td>3.82</td> <td>-2.10</td> <td>0.00</td> <td>1 0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>103</td> <td>91</td> <td>101.48</td> <td>0</td> <td>46</td> <td>5.31</td> <td>1.00</td> </tr> </tbody> </table>		ID	TIME	IPRED	DV	PRED	RES	WRES	IREP	C	AMT	II	ADDL	RATE	HT	WT	CLCR	SEX	AGE	DVobs	newcol	1 1.00	0.00	0.00	0.00	0.00	0.00	0.00	1 0	900	12	9	300	103	91	101.48	0	46	0.00	1.00	2 1.00	1.50	4.53	5.79	4.05	1.74	0.00	1 0	0	0	0	0	103	91	101.48	0	46	6.99	1.00	3 1.00	3.00	7.37	9.29	7.37	1.92	0.00	1 0	0	0	0	0	103	91	101.48	0	46	12.66	1.00	4 1.00	8.00	1.57	1.72	3.82	-2.10	0.00	1 0	0	0	0	0	103	91	101.48	0	46	5.31	1.00
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Figure 75: RID: 12 Test ID: 01

Figures

ConcVTime#1 ConcVTimeGroup#1 OBSvPRED#1 paramDist#1 covCat#1 covCon#1 corPairs#1 QQplot#1 GOF#1 distMult#1  
 barchartMult#1 VPC#1

VPC Data Additional data specification Figure

Manipulation code

Column names for y-axis, x-axis, dose (if dose correction), and population predictions (if prediction corrected) are assumed to be the same as the main VPC data source. If not, update here.

```
1 DV <- DV^2
```

Load data layer

Source file location  
 poppk\_wcovs.csv

Rename to defaults?

Code parser (additional data)

Number of rows of dataset to preview  
 10

C	NMID	AMT	II	ADDL	TAFD	RATE	HT	WT	CLCR	SEX	AGE	DVobs	
1	0	1	900	12	9	0.00	300	103	91	101.48	0	46	0.00
2	0	1	0	0	0	1.50	0	103	91	101.48	0	46	48.86
3	0	1	0	0	0	3.00	0	103	91	101.48	0	46	160.28
4	0	1	0	0	0	8.00	0	103	91	101.48	0	46	28.20
5	0	1	0	0	0	11.90	0	103	91	101.48	0	46	5.71

Figure 76: RID: 12 Test ID: 02

## Figures

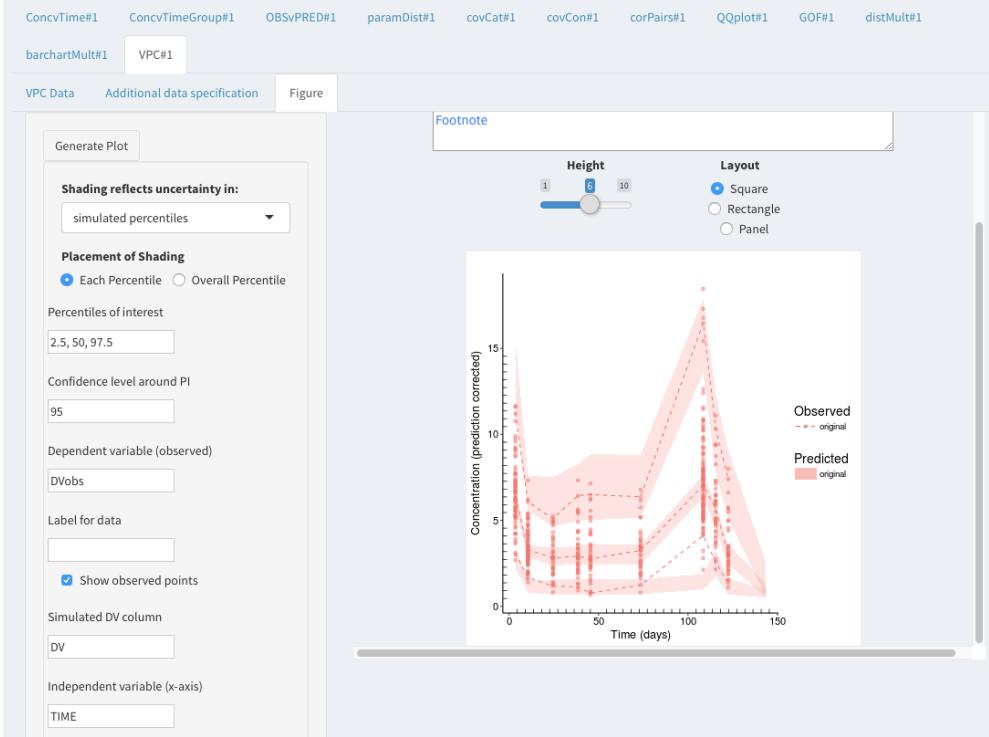


Figure 77: RID: 12 Test ID: 03

## Figures

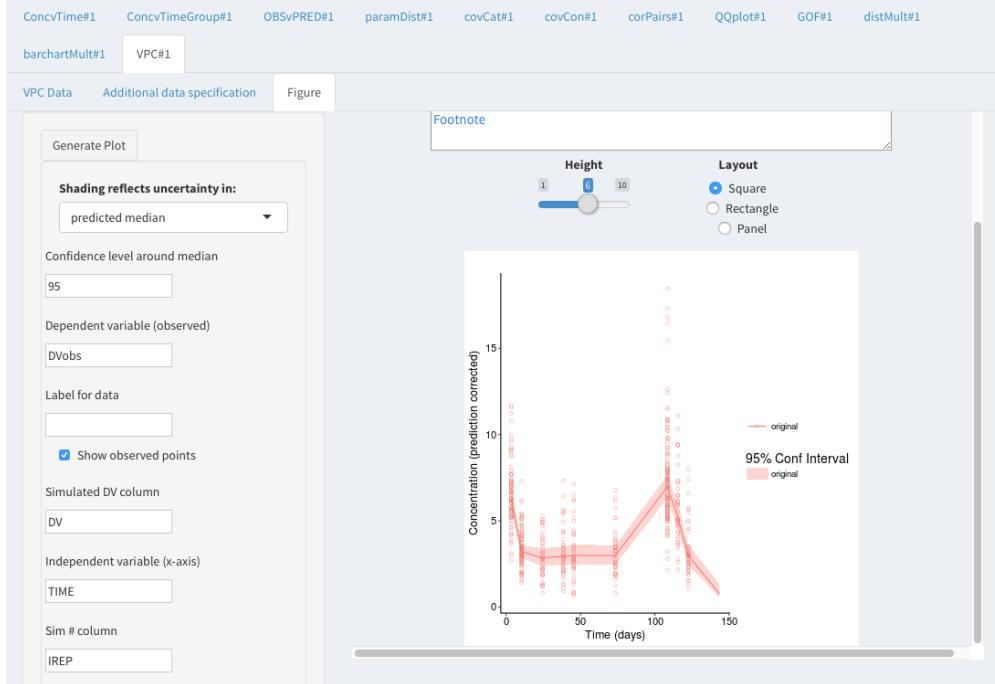


Figure 78: RID: 12 Test ID: 04

## Figures

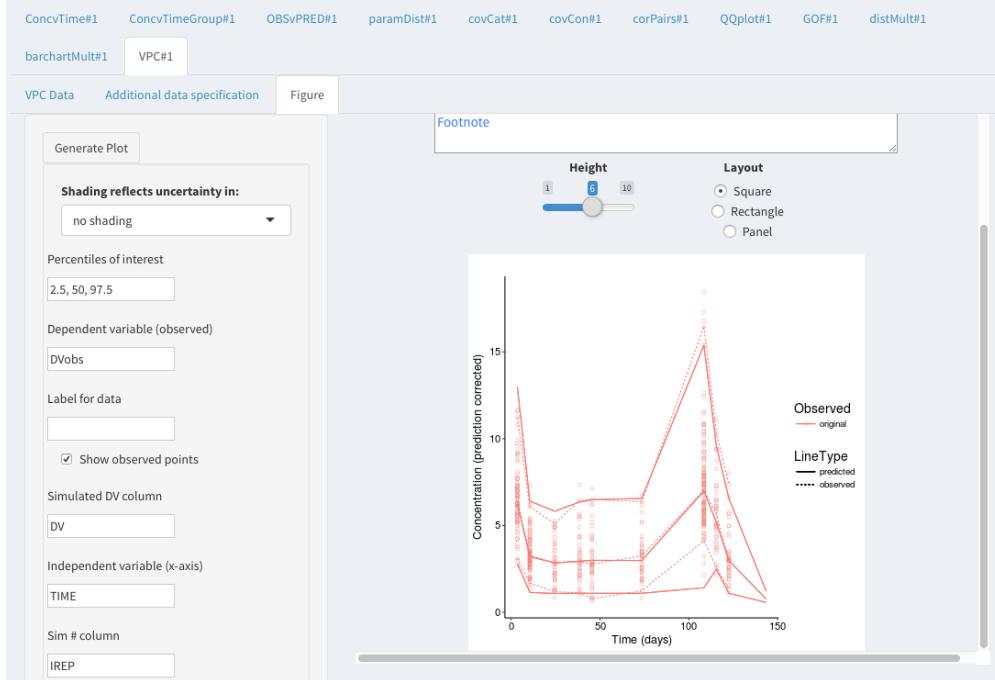


Figure 79: RID: 12 Test ID: 05

## Figures

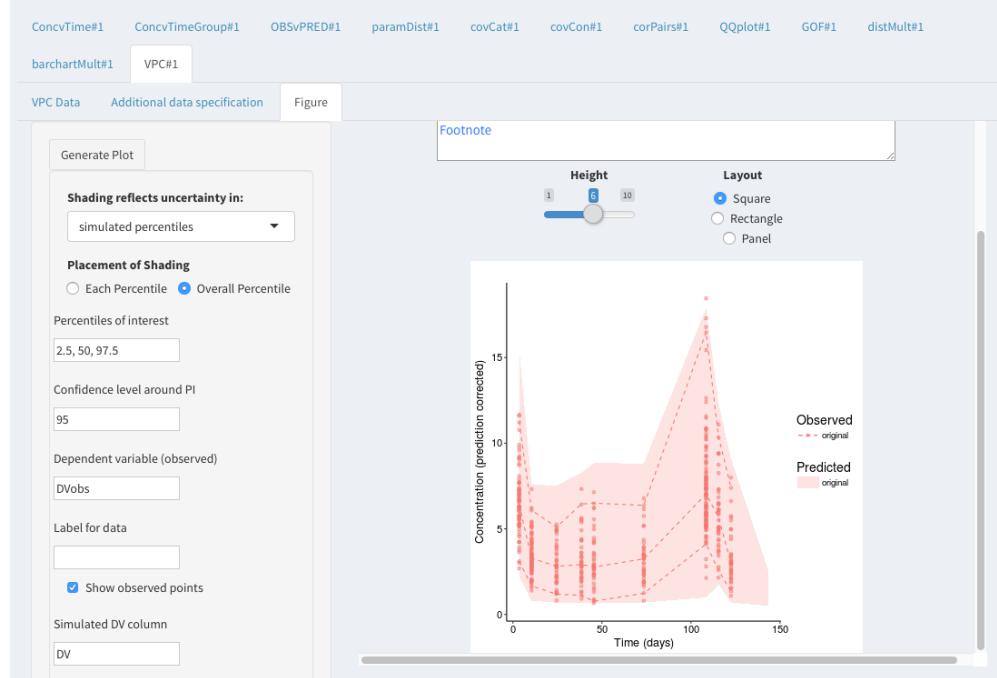


Figure 80: RID: 12 Test ID: 06

## Figures

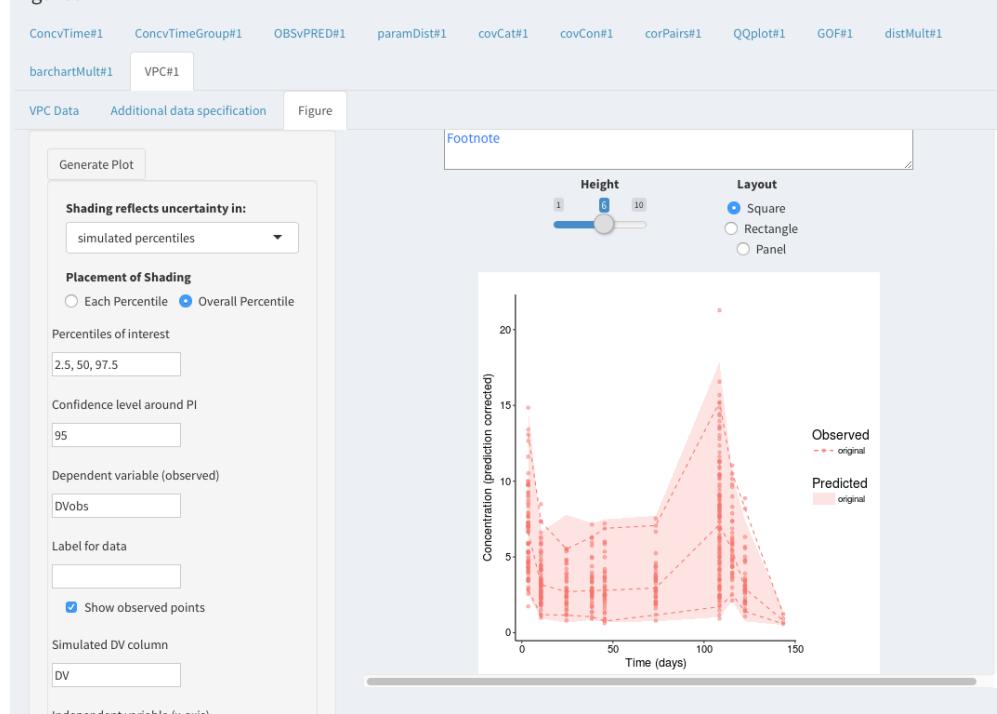


Figure 81: RID: 12 Test ID: 07

## Figures

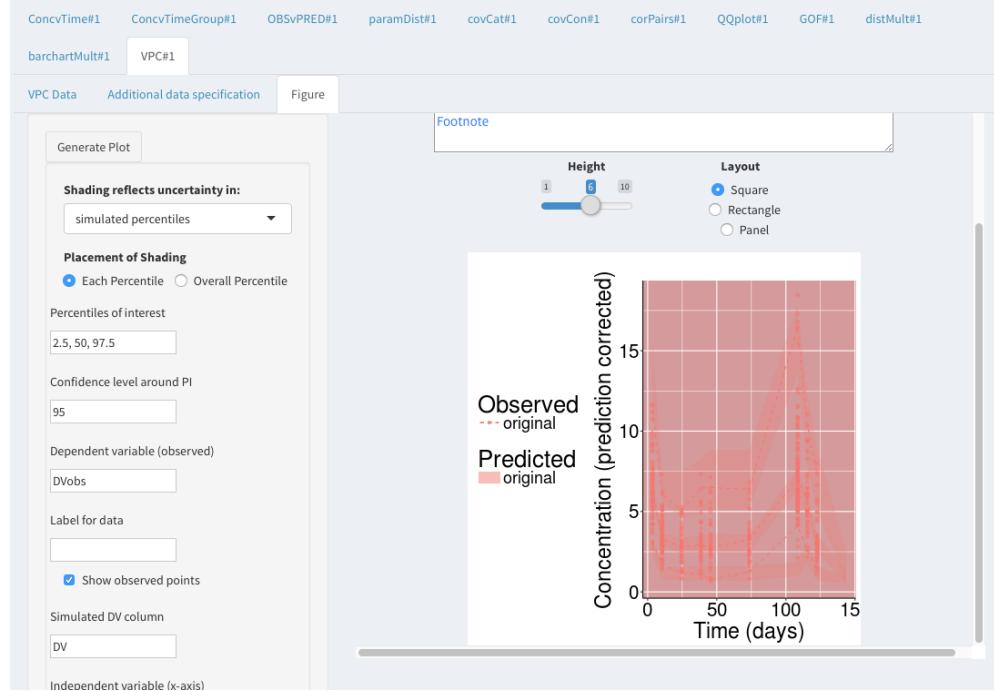


Figure 82: RID: 12 Test ID: 08

## Current TFL



Figure 83: RID: 14 Test ID: 02