

# DVH Analytics

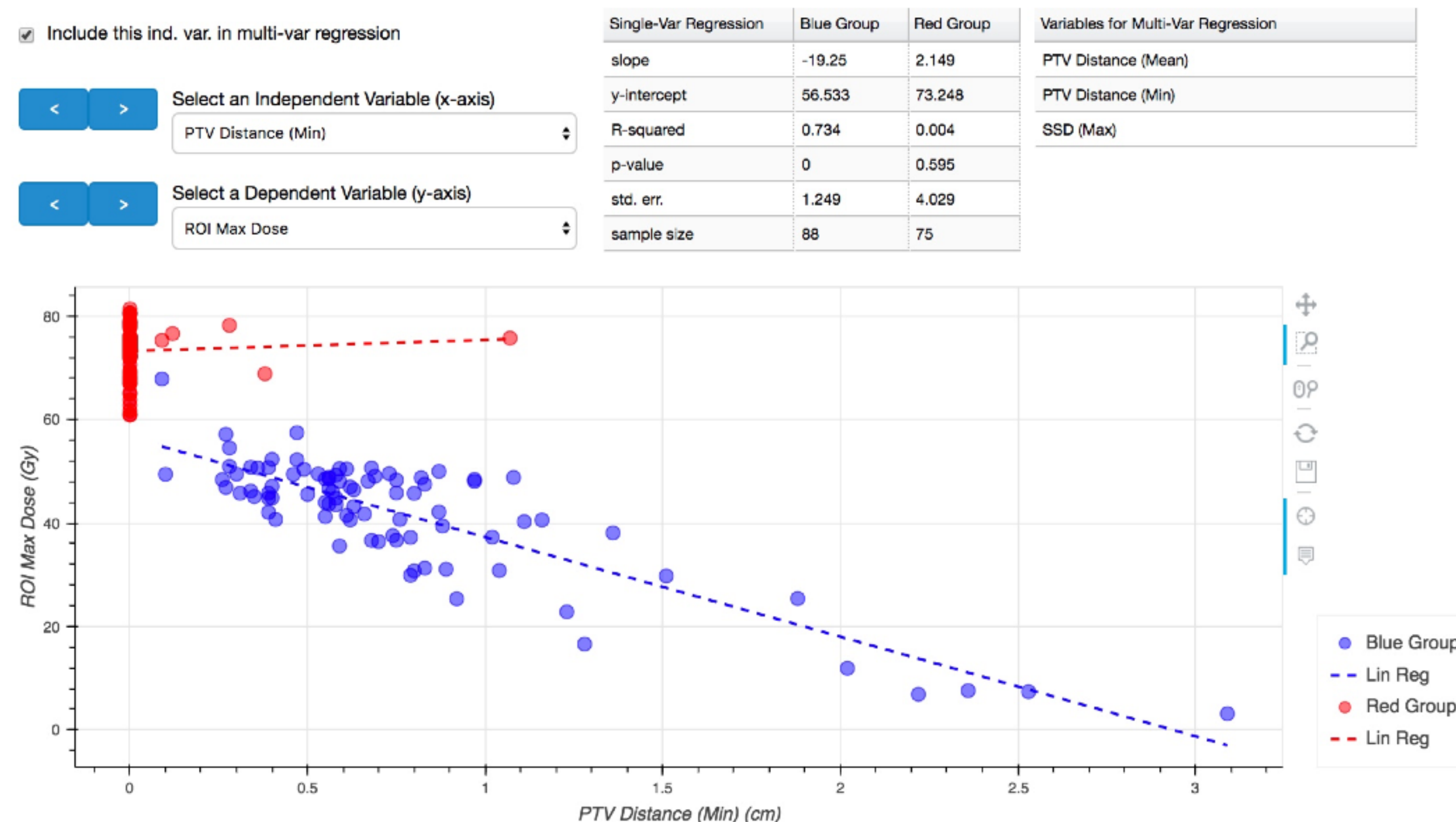
## Statistical Modules

### Multi-Variable Regression

- Plot any variable available in correlation matrix against another
- Displays linear regression results using Statsmodels
- Select variables of interest to run in a multi-variable regression

Results from multi-variable regressions for the maximum brainstem doses contained within the previous slide.

Regression Model	Independent Variable	Coefficient	p-value
Model 1 ( $R^2 = 0.819$ , $p = 0.000$ )	Constant	-80.62	0.005
	PTV Distance (Mean)	-6.932	0.000
	PTV Distance (Min)	-8.028	0.005
	SSD (Max)	1.547	0.000



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### Multi-Variable Regression

- Plot any variable available in correlation matrix against another
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- Select variables of interest to run in a multi-variable regression
- Precursor to future plans with respect to predictive modeling based on anatomy

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