

H.2. Genotoxicity Test Statistical Analysis Output

Frequencies

Statistics				
		Experiment	Cells	Toxic Agent
N	Valid	40000	40000	40000
	Missing	0	0	0

Frequency Table

Experiment					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2000	5,0	5,0	5,0
	2	2000	5,0	5,0	10,0
	3	2000	5,0	5,0	15,0
	4	2000	5,0	5,0	20,0
	5	2000	5,0	5,0	25,0
	6	2000	5,0	5,0	30,0
	7	2000	5,0	5,0	35,0
	8	2000	5,0	5,0	40,0
	9	2000	5,0	5,0	45,0
	10	2000	5,0	5,0	50,0
	11	2000	5,0	5,0	55,0
	12	2000	5,0	5,0	60,0
	13	2000	5,0	5,0	65,0
	14	2000	5,0	5,0	70,0
	15	2000	5,0	5,0	75,0
	16	2000	5,0	5,0	80,0
	17	2000	5,0	5,0	85,0
	18	2000	5,0	5,0	90,0
	19	2000	5,0	5,0	95,0
	20	2000	5,0	5,0	100,0
Total		40000	100,0	100,0	

Cells

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	HGF	20000	50,0	50,0	50,0
	V79-4	20000	50,0	50,0	100,0
	Total	40000	100,0	100,0	

Toxic Agent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Control (-)	8000	20,0	20,0	20,0
	EMS 100 microg/ml	8000	20,0	20,0	40,0
	MMA 0.0037 mM	8000	20,0	20,0	60,0
	MMA 40 mM	8000	20,0	20,0	80,0
	Formaldehyde 100 microM	8000	20,0	20,0	100,0
	Total	40000	100,0	100,0	

Explore

Cells

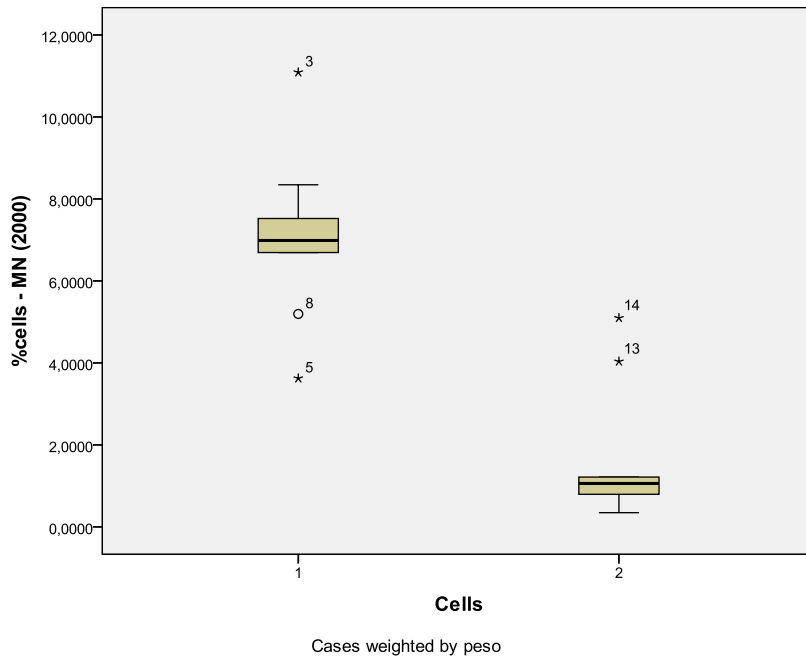
Labels – 1 – HGF; 2 – V79

Case Processing Summary

Cells		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
%cells - MN (2000)	1	20000	100,0%	0	,0%	20000	100,0%
	2	20000	100,0%	0	,0%	20000	100,0%

Descriptives

Cells			Statistic	Std. Error
%cells - MN (2000)	1	Mean	7,064522	,0129891
		95% Confidence Interval for Mean		
		Lower Bound	7,039062	
		Upper Bound	7,089982	
		5% Trimmed Mean	7,032050	
		Median	6,991329	
		Variance	3,374	
		Std. Deviation	1,8369312	
		Minimum	3,6246	
		Maximum	11,0889	
		Range	7,4643	
		Interquartile Range	,8306	
		Skewness	,324	,017
		Kurtosis	,666	,035
	2	Mean	1,616710	,0107315
		95% Confidence Interval for Mean		
		Lower Bound	1,595676	
		Upper Bound	1,637745	
		5% Trimmed Mean	1,493878	
		Median	1,064496	
		Variance	2,303	
		Std. Deviation	1,5176603	
		Minimum	,3479	
		Maximum	5,0965	
		Range	4,7486	
		Interquartile Range	,4201	
		Skewness	1,470	,017
		Kurtosis	,506	,035



Toxic Agent

Labels – 0 –Control (0); 1 – EMS 600 µg/ml; 2 – MMA 0.0037 mM; 3 – MMA 40 mM; 4 – Formaldehyde 100 µM

Case Processing Summary

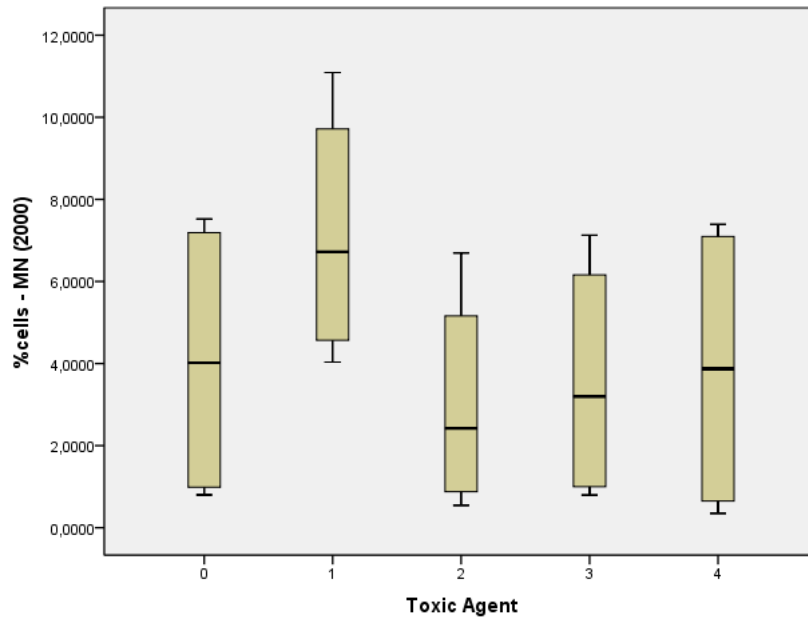
Toxic Agent		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
%cells - MN (2000)	0	8000	100,0%	0	,0%	8000	100,0%
	1	8000	100,0%	0	,0%	8000	100,0%
	2	8000	100,0%	0	,0%	8000	100,0%
	3	8000	100,0%	0	,0%	8000	100,0%
	4	8000	100,0%	0	,0%	8000	100,0%

Descriptives

Toxic Agent			Statistic	Std. Error	
%cells - MN (2000)	0	Mean	4,089014	,0347931	
		95% Confidence Interval for			
		Mean	Lower Bound	4,020810	
			Upper Bound	4,157217	
		5% Trimmed Mean		4,081011	
		Median		4,016992	
		Variance		9,684	
		Std. Deviation		3,1119888	
		Minimum		,7984	
		Maximum		7,5237	
		Range		6,7253	
		Interquartile Range		6,4625	
		Skewness		,012	,027
		Kurtosis		-1,970	,055
	1	Mean	7,141665	,0310574	
		95% Confidence Interval for			
		Mean	Lower Bound	7,080784	
			Upper Bound	7,202545	
		5% Trimmed Mean		7,094941	
		Median		6,721157	
		Variance		7,717	
		Std. Deviation		2,7778610	
		Minimum		4,0354	
		Maximum		11,0889	
		Range		7,0535	
		Interquartile Range		6,1024	
		Skewness		,288	,027
		Kurtosis		-1,507	,055
	2	Mean	3,019239	,0269547	
		95% Confidence Interval for			
		Mean	Lower Bound	2,966401	
			Upper Bound	3,072077	
		5% Trimmed Mean		2,952722	
		Median		2,420586	
		Variance		5,812	
		Std. Deviation		2,4109023	
		Minimum		,5427	
		Maximum		6,6931	
Range		6,1504			

	Interquartile Range		5,2148	
	Skewness		,513	,027
	Kurtosis		-1,294	,055
3	Mean		3,581019	,0298938
	95% Confidence Interval for	Lower Bound	3,522419	
	Mean	Upper Bound	3,639618	
	5% Trimmed Mean		3,538630	
	Median		3,199522	
	Variance		7,149	
	Std. Deviation		2,6737805	
	Minimum		,7964	
	Maximum		7,1286	
	Range		6,3322	
	Interquartile Range		5,7468	
	Skewness		,181	,027
	Kurtosis		-1,742	,055
4	Mean		3,872145	,0361983
	95% Confidence Interval for	Lower Bound	3,801186	
	Mean	Upper Bound	3,943103	
	5% Trimmed Mean		3,872354	
	Median		3,874029	
	Variance		10,483	
	Std. Deviation		3,2376733	
	Minimum		,3479	
	Maximum		7,3926	
	Range		7,0447	
	Interquartile Range		6,7460	
	Skewness		,000	,027
	Kurtosis		-1,967	,055

Cases weighted by peso



Cases weighted by peso

T-Test

Group Statistics

	Cells	N	Mean	Std. Deviation	Std. Error Mean
%cells - MN (2000)	1	20000	7,064522	1,8369312	,0129891
	2	20000	1,616710	1,5176603	,0107315

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
%cells - MN (2000)	Equal variances assumed	19,306	,000	323,336	39998	,000	5,4478118	,0168488	5,4147878	5,4808357
	Equal variances not assumed			323,336	38623,580	,000	5,4478118	,0168488	5,4147878	5,4808357

Oneway

Descriptives

%cells MN/2000 cells

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
					Lower Bound	Upper Bound			
Control (-)	8000	4,089014	3,1119888	,0347931	4,020810	4,157217	,7984	7,5237	
EMS 100 microg/ml	8000	7,141665	2,7778610	,0310574	7,080784	7,202545	4,0354	11,0889	
MMA 0.0037 mM	8000	3,019239	2,4109023	,0269547	2,966401	3,072077	,5427	6,6931	
MMA 40 mM	8000	3,581019	2,6737805	,0298938	3,522419	3,639618	,7964	7,1286	
Formaldehyde 100 microM	8000	3,872145	3,2376733	,0361983	3,801186	3,943103	,3479	7,3926	
Total	40000	4,340616	3,2029022	,0160145	4,309227	4,372005	,3479	11,0889	
Model									
Fixed Effects			2,8581486	,0142907	4,312606	4,368626			
Random Effects				,7228993	2,333526	6,347706			2,6118959

Test of Homogeneity of Variances

%cells MN/2000 cells

Levene Statistic	df1	df2	Sig.
2611,788	4	39995	,000

ANOVA

%cells MN/2000 cells

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	83613,345	4	20903,336	2558,857	,000
Within Groups	326719,687	39995	8,169		
Total	410333,031	39999			

Robust Tests of Equality of Means

%cells MN/2000 cells

	Statistic ^a	df1	df2	Sig.
Welch	2845,078	4	19940,349	,000
Brown-Forsythe	2558,857	4	38335,124	,000

a. Asymptotically F distributed.

Post Hoc Tests

Multiple Comparisons

%cells MN/2000 cells

Dunnett t (>control)^a

(I) Toxic Agent	(J) Toxic Agent	Mean Difference (I-J)	Std. Error	Sig.	99% Confidence Interval
					Lower Bound
EMS 100 microg/ml	Control (-)	3,0526508 [*]	,0451913	,000	2,927394
MMA 0.0037 mM	Control (-)	-1,0697749	,0451913	1,000	-1,195032
MMA 40 mM	Control (-)	-,5079951	,0451913	1,000	-,633252
Formaldehyde 100 microM	Control (-)	-,2168691	,0451913	1,000	-,342126

a. Dunnett t-tests treat one group as a control, and compare all other groups against it.

*. The mean difference is significant at the 0.01 level.

Means Plots

