



VISUALIZATION FROM SEND DATA WAREHOUSE

EXAMPLE USE WITH SPOTFIRE®

SEND DATA WAREHOUSE - WHAT

Data warehouse with SEND studies

- Not confined to those submitted

Database based upon SEND data organization

- Trial design, animal demographics, expose, observation and disposition domains
- (potential expansion for Clinical, other data)

Studies build over time

Migration of legacy studies into system

SEND DATA WAREHOUSE - WHY

Data mining

- – compound research in future

Visual analysis within and across studies

- – scientific correlations

Visual analysis within and across studies

- – throughput analysis

Historical records

- - (control) data by animal model for planning



STUDY SELECTION

Prist3 correlation bw cp mi ow co.dxp - TIBCO Spotfire

File Edit View Insert Tools Help

Study selection x Clin path x Clin path by study x Body weights by group x Body weights indiv x Histopathology x Histopathology by study x Histopathology by severity x Clinical obs trellis x Clinical c + < > v

Study

Compound Species

Type to search in list

(All) 14 values

- COMPOUND-1
- COMPOUND-1025
- COMPOUND-1628
- COMPOUND-1672
- COMPOUND-2161
- COMPOUND-2575

☒ Canine

☒ DOG

☒ Mouse

☒ Rat

☒ (Empty)

Study

Study	Study parameter	Study parameter value
Study-5641	Age	
Study-5641	Age Text	
Study-5641	Age Unit	
Study-5641	Dosing Duration	
Study-5641	Experimental End Date	
Study-5641	Experimental Start Date	2014-11-17
Study-5641	Good Laboratory Practice Type	Y
Study-5641	Housing Group	Multiply housed
Study-5641	Route of Administration	Oral Gavage
Study-5641	Study Design	
Study-5641	Sex Of Participants	BOTH
Study-5641	SEND Controlled Terminology Version	SEND Terminology 2013-12-20
Study-5641	SEND Implementation Guide Version	SEND Implementation Guide Version 3.0
Study-5641	Species	Rat
Study-5641	Planned Number of Subjects	632
Study-5641	Test Subject Supplier Site	Raleigh,NC,USA
Study-5641	Test Subject Supplier	Charles River
Study-5641	Sponsor's Reference ID	STUDY-5641
Study-5641	Sponsoring Organization	Xybion Corp
Study-5641	Study Type	Carcinogenicity
Study-5641	Study Category	Carcinogenicity
Study-5641	Study Director	Pristima User-65
Study-5641	Study Title	
Study-5641	Strain/Substrain	CD (SD)
Study-5641	Study Start Date	
Study-5641	Test Facility Country	US

Data limiting:
Filtering scheme
(Page filtering ignored)
Data table:
SEND_TS_VIE...

Filters

Filtering scheme

study

SEND_TS_VIEW (3)

Study

- ☒ S1000
- ☒ S130000
- ☒ S4031
- ☒ S440
- ☒ S5010
- ☒ S866
- ☒ Study-1357
- ☒ Study-1362
- ☒ Study-1363
- ☒ Study-1452
- ☒ Study-5641

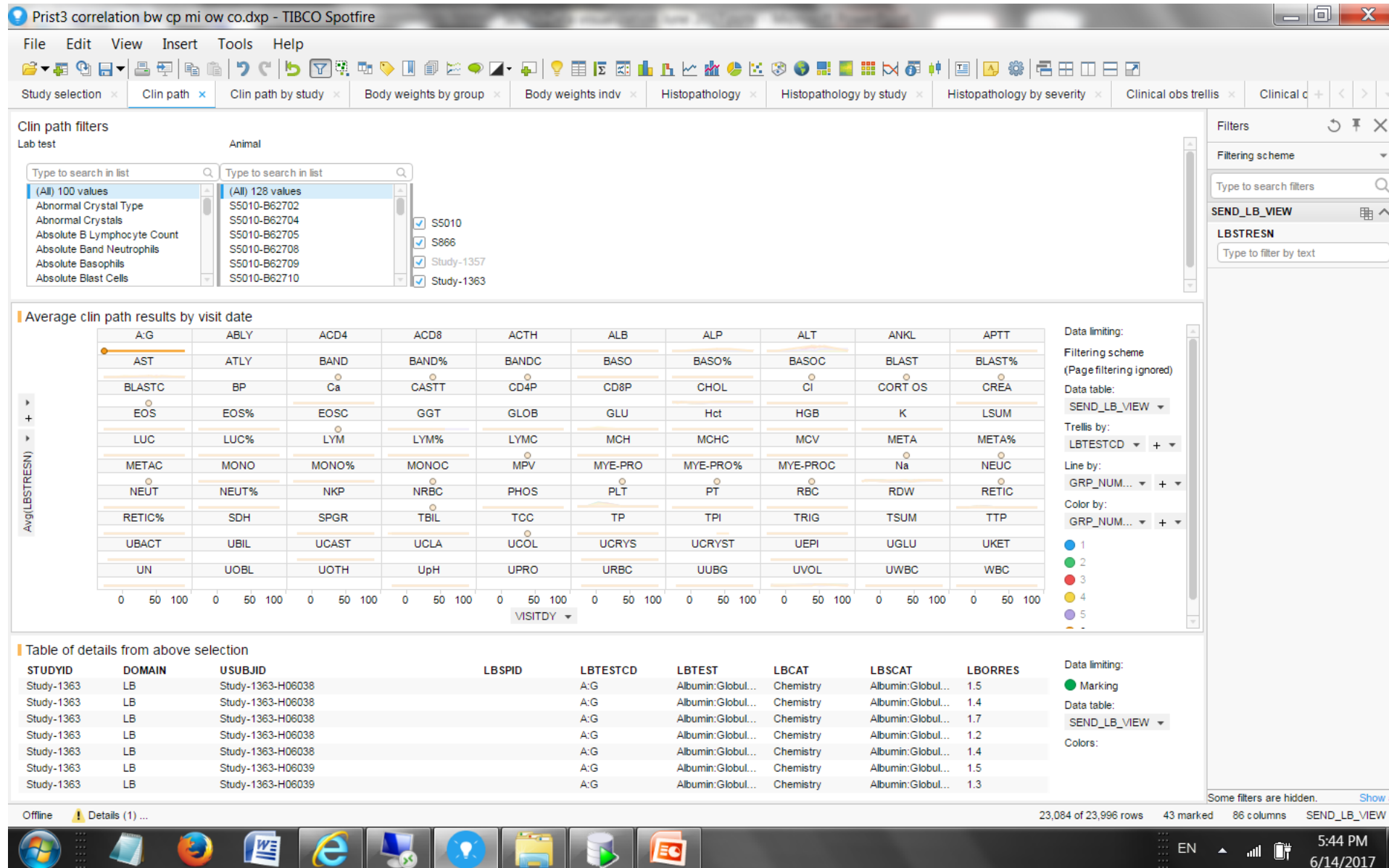
Some filters are hidden. [Show all](#)

Offline Details (1) ...

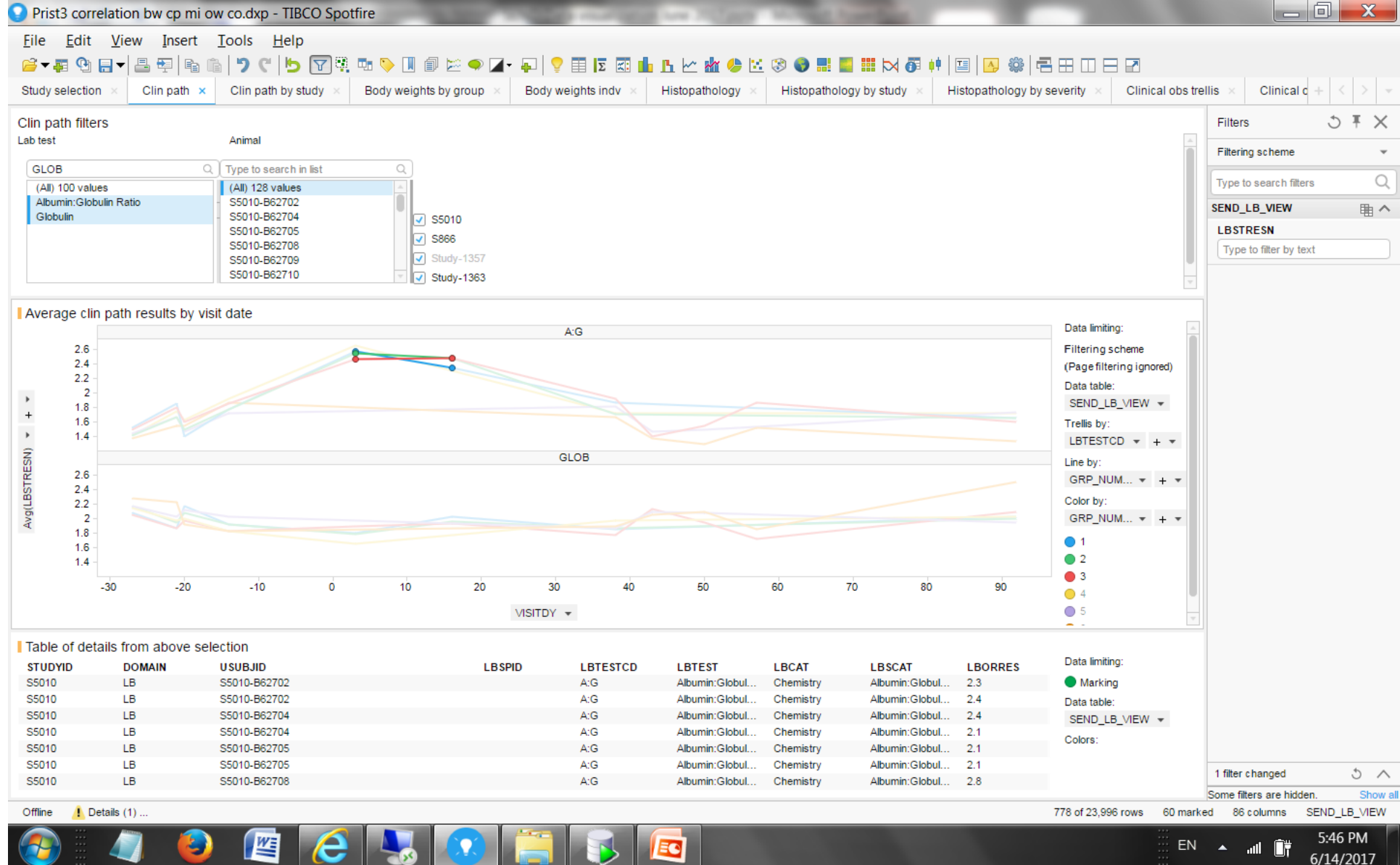
283 of 383 rows 137 marked 6 columns SEND_TS_VIEW (3)

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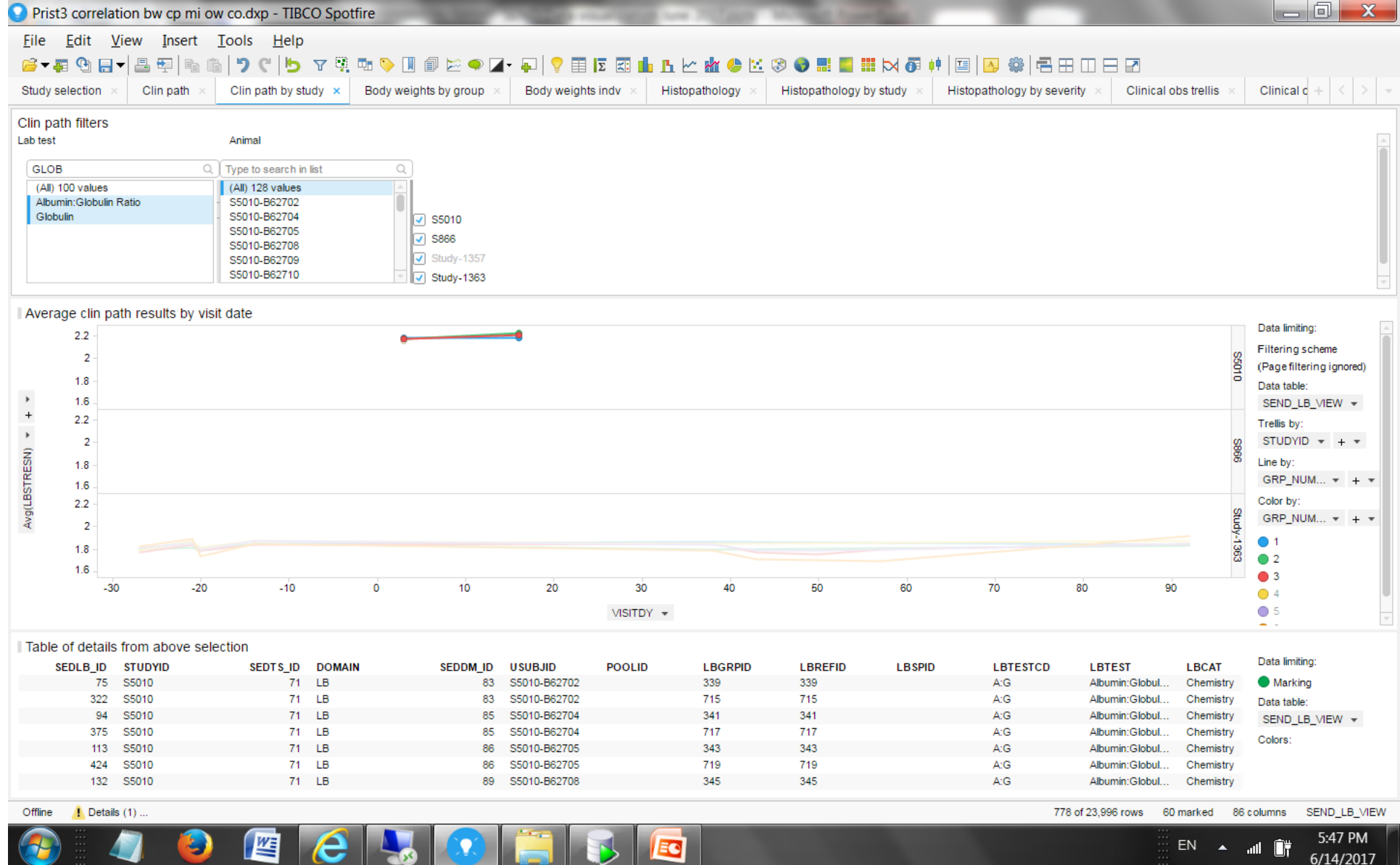
LAB DATA OVERVIEW



LAB VALUES OF INTEREST



LAB DATA GROUPED BY STUDY



BODY WEIGHTS BY GROUP

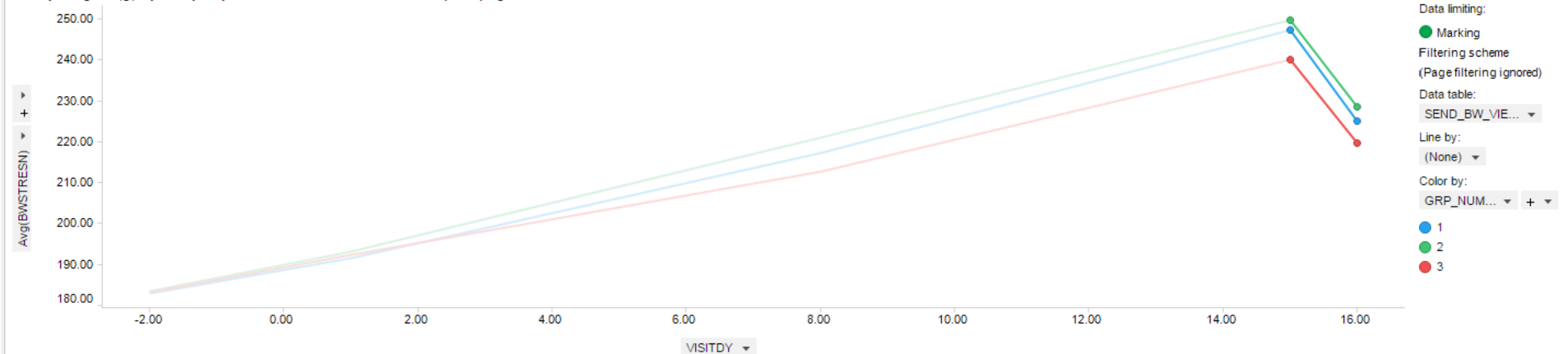
Prist3 correlation bw cp mi ow co.dxp - TIBCO Spotfire

File Edit View Insert Tools Help



Study selection x Clin path x Clin path by study x **Body weights by group x** Body weights indiv x Histopathology x Histopathology by study x Histopathology by severity x Clinical obs trellis x Clinical c + < > ▾

Body weights (g) by study day, for selected animals from clin path page



Body weight date from above selection

SEDBW_ID	STUDYID	DOMAIN	USUBJID	TYPES	BWORRES	BWORRESU	BWSTRESC	BWSTRESN	BWSTRESU	BWSTAT	BWREASND	BWEXCLFL
403	S5010	BW	S5010-B62702	2.00	263	g	263	263.00	g			
357	S5010	BW	S5010-B62702	1.00	288	g	288	288.00	g			
408	S5010	BW	S5010-B62704	2.00	268	g	268	268.00	g			
358	S5010	BW	S5010-B62704	1.00	297	g	297	297.00	g			
419	S5010	BW	S5010-B62705	2.00	274	g	274	274.00	g			
359	S5010	BW	S5010-B62705	1.00	300	g	300	300.00	g			
406	S5010	BW	S5010-B62708	2.00	270	g	270	270.00	g			
360	S5010	BW	S5010-B62708	1.00	301	g	301	301.00	g			
398	S5010	BW	S5010-B62709	2.00	244	g	244	244.00	g			
361	S5010	BW	S5010-B62709	1.00	272	g	272	272.00	g			
401	S5010	BW	S5010-B62710	2.00	272	g	272	272.00	g			
367	S5010	BW	S5010-B62710	1.00	298	g	298	298.00	g			
399	S5010	BW	S5010-B62711	2.00	284	g	284	284.00	g			
368	S5010	BW	S5010-B62711	1.00	305	g	305	305.00	g			
416	S5010	BW	S5010-B62713	2.00	285	g	285	285.00	g			
369	S5010	BW	S5010-B62713	1.00	315	g	315	315.00	g			
413	S5010	BW	S5010-B62715	2.00	251	g	251	251.00	g			
370	S5010	BW	S5010-B62715	1.00	275	g	275	275.00	g			

Offline Details (1) ...

16,602 of 16,602 rows 60 marked 79 columns SEND_BW_VIEW



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INDIVIDUAL BODY WEIGHTS OVER TIME

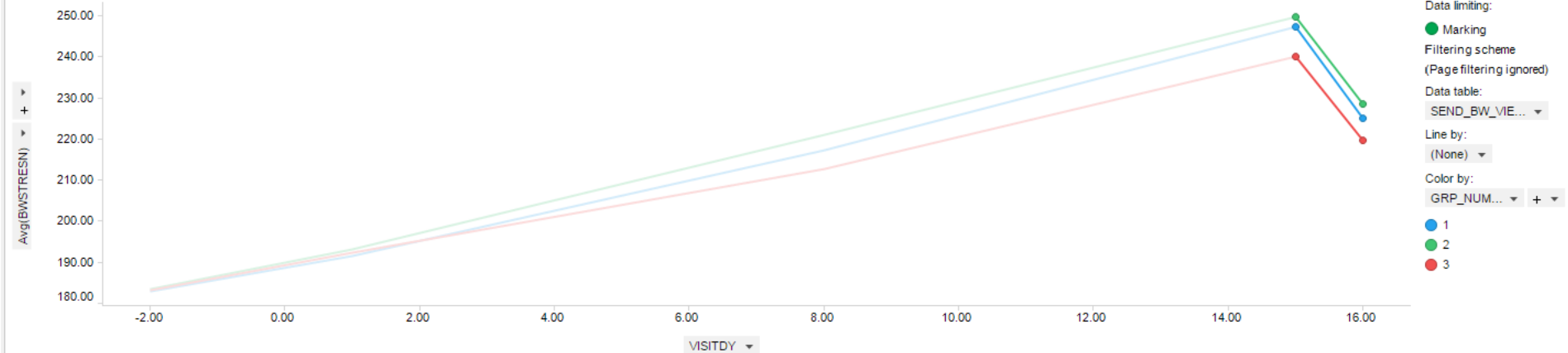
Prist3 correlation bw cp mi ow co.dxp - TIBCO Spotfire

File Edit View Insert Tools Help



Study selection x Clin path x Clin path by study x **Body weights by group x** Body weights indiv x Histopathology x Histopathology by study x Histopathology by severity x Clinical obs trellis x Clinical c + < > ▾

Body weights (g) by study day, for selected animals from clin path page



Body weight date from above selection

SEDBW_ID	STUDYID	DOMAIN	USUBJID	TYPES	BWORRES	BWORRESU	BWSTRESC	BWSTRESN	BWSTRESU	BWSTAT	BWREASND	BWEXCLFL
403	S5010	BW	S5010-B62702	2.00	263	g	263	263.00	g			
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406	S5010	BW	S5010-B62708	2.00	270	g	270	270.00	g			
360	S5010	BW	S5010-B62708	1.00	301	g	301	301.00	g			
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Data limiting:
● Marking
● Marking (2)
Filtering scheme
(Page filtering ignored)
Data table:
SEND_BW_VIE... ▾
Colors:

Offline Details (1) ...

16,602 of 16,602 rows 60 marked 79 columns SEND_BW_VIEW



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HISTOPATH BY DOSE GROUP

Prist3 correlation bw cp mi ow co.dxp - TIBCO Spotfire

File Edit View Insert Tools Help

Study selection x Clin path x Clin path by study x Body weights by group x Body weights indiv x **Histopathology x** Histopathology by study x Histopathology by severity x Clinical obs trellis x Clinical c + < > ▾

Group number

☒ 1
☒ 2
☒ 3
☒ 4
☒ 5
☒ 6
☒ 7

Type to search in list

- (All) 95 values
- Abdominal Cavity
- Adipose, Other
- Adrenal
- Adrenal, Cortex
- Adrenal, Medulla
- Aorta

Tissue:

Histopathology data for animals selected on clinpath page

Death Comment	Pituitary	Kidney	Liver	Thyroid	Thymus	Pancreas
Scheduled sacrifice	Cyst	Nephropathy, chronic progressive	Inflammation, chronic	Cyst	Cyst	Atrophy, acinar, f... Prostate Infiltrate, lymphoc...

Death Comment	Epididymis
Scheduled sacrifice	Infiltrate, lymphocytes/macrophages

Death Comment	Liver	Pituitary	Kidney	Spleen	Epididymis	Lung	Testis
Scheduled sacrifice	Inflammation, chronic	Cyst	Nephropathy, chronic progressive	Hematopoiesis, extramedullary, increased	Infiltrate, lymphocytes/macrophages	Metaplasia, osseous	Degeneration/necrosis

Histopathology data from those selected above

MAIN	USUBJID	MIREFID	SEDITS_ID	TISSUE_NAME	ABBREVIATIO..	SEDOBS_ID	OBS_NAME	LONG_FORM	MIFINDINGTY...	MORRES	MIRESCAT	MISTAT
	S5010-B62702	B62702-52	52.00	Liver	LI	43.00	Inflammation, c...	Inflammation, c...	1.00	Inflammation, c...	Non-neoplasm	
	S5010-B62702	B62702-67	67.00	Kidney	KD	44.00	Nephropathy, c...	Nephropathy, c...	1.00	Nephropathy, c...	Non-neoplasm	
	S5010-B62702	B62702-83	83.00	Death Comment	DC	45.00	Scheduled sac...	Scheduled sac...	1.00	Scheduled sac...	Non-neoplasm	
	S5010-B62704	B62704-52	52.00	Liver	LI	43.00	Inflammation, c...	Inflammation, c...	1.00	Inflammation, c...	Non-neoplasm	
	S5010-B62704	B62704-67	67.00	Kidney	KD	44.00	Nephropathy, c...	Nephropathy, c...	1.00	Nephropathy, c...	Non-neoplasm	
	S5010-B62704	B62704-83	83.00	Death Comment	DC	45.00	Scheduled sac...	Scheduled sac...	1.00	Scheduled sac...	Non-neoplasm	

49,137 of 49,137 rows 23 marked 93 columns SEND_ML_VIEW

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HISTOPATH BY STUDY

Prist3 correlation bw cp mi ow co.dxp - TIBCO Spotfire

File Edit View Insert Tools Help

Study selection x Clin path x Clin path by study x Body weights by group x Body weights indiv x Histopathology x **Histopathology by study x** Histopathology by severity x Clinical obs trellis x Clinical c + < > x

Group number

☒ 1
☒ 2
☒ 3
☐ 4

Type to search in list

- (All) 95 values
- Abdominal Cavity
- Adipose
- Other

Histopathology data for animals selected on clinpath page

Death Comment	Pituitary	Kidney	Epididymis
Scheduled sacrifice	Cyst	Nephropathy, chronic progressive	Infiltrate, lymphocytes/macrophages
	Liver		Debris, cellular, lumen
	Inflammation, chronic		

Mineralization

Spleen	Thymus	Lung	Pancr...
Hematopoiesis, extramedullary, increased	Cyst	Increase d cortical lymphocytes	Metaplasia, osseous
	Thyroid	Prostate	Atrophy, acinar, focal
	Cyst	Infiltrate, lymphocytes/macrophages	Degeneration/neurocrosis, germ cell

01005

Data limiting: Marking
Filtering scheme (Page filtering ignored)
Data table: SEND_MI_VIEW
Marking: Marking (3)
Trellis by: STUDYID +
Color by: Count(GRP_NUM...)
Size by: Count(MIFINDING...)
Hierarchy: T... O... +

Filters

Filtering scheme

studyid

SEND_BG_CSV_VIEW
SEND_BG_OUTPUT_VIEW
STUDYID
Type to filter by text
SEND_BT_VIEW
STUDYID
Type to filter by text
SEND_BW_PRETEST_VIEW
SEND_BW_VIEW
STUDYID
S1000
S440
S5010
S866
Study-1362
Study-1363
Study-1452
Study-5641
STUDYID (SEDDM_ID)
S1000
S440
S5010
S866
Study-1362
Study-1363
Study-1452
Study-5641
SEND_DD_VIEW
1 filter changed

Histopathology data from those selected above

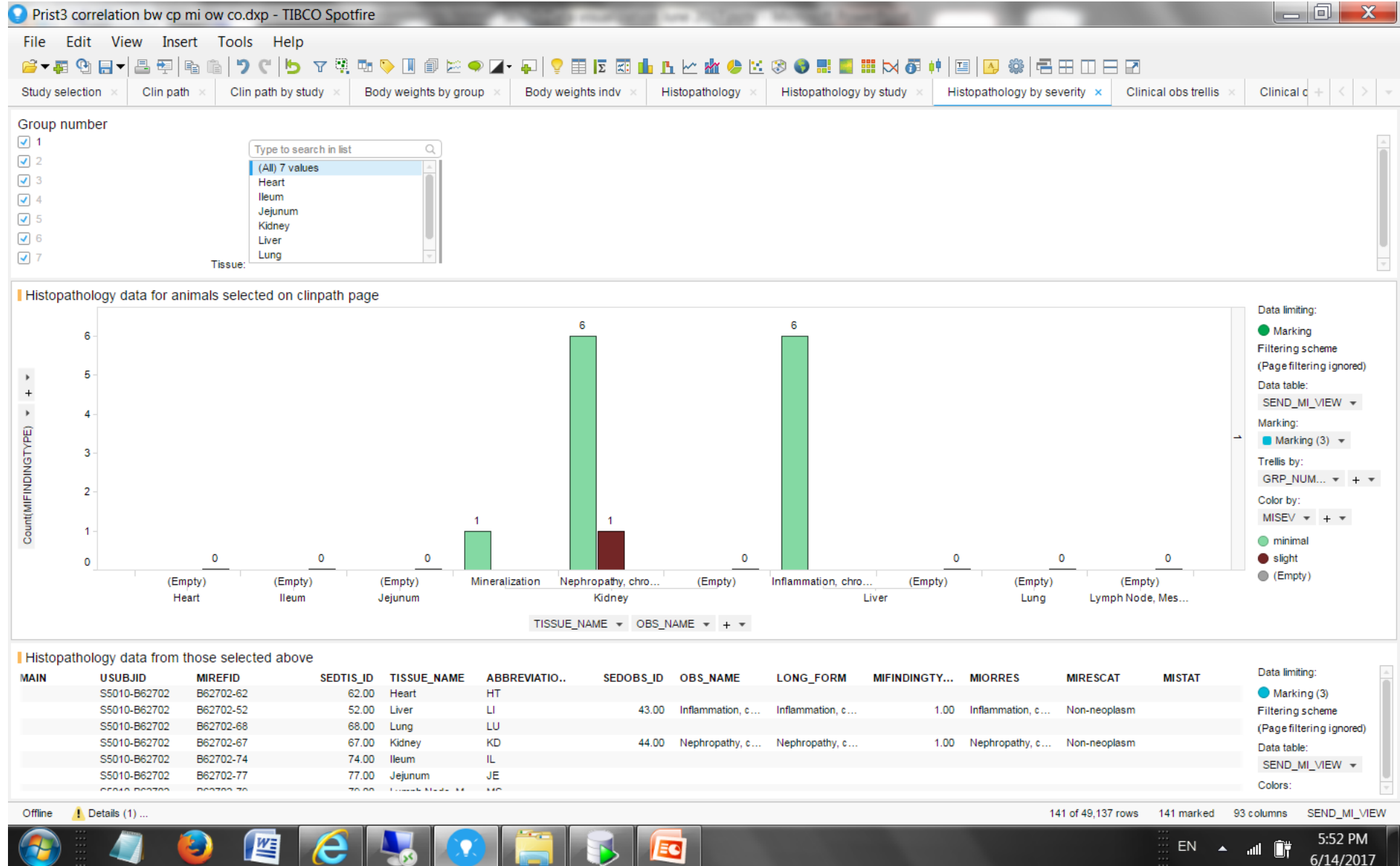
MAIN	USUBJID	MIREFID	SEDTIS_ID	TISSUE_NAME	ABBREVIATIO..	SEDOBS_ID	OBS_NAME	LONG_FORM	MIFINDINGTY...	MIORRES
	S5010-B62702	B62702-52	52.00	Liver	LI	43.00	Inflammation, c...	Inflammation, c...	1.00	Inflammation, c...
	S5010-B62702	B62702-67	67.00	Kidney	KD	44.00	Nephropathy, c...	Nephropathy, c...	1.00	Nephropathy, c...
	S5010-B62702	B62702-83	83.00	Death Comment	DC	45.00	Scheduled sac...	Scheduled sac...	1.00	Scheduled sac...

Offline Details (1) ...

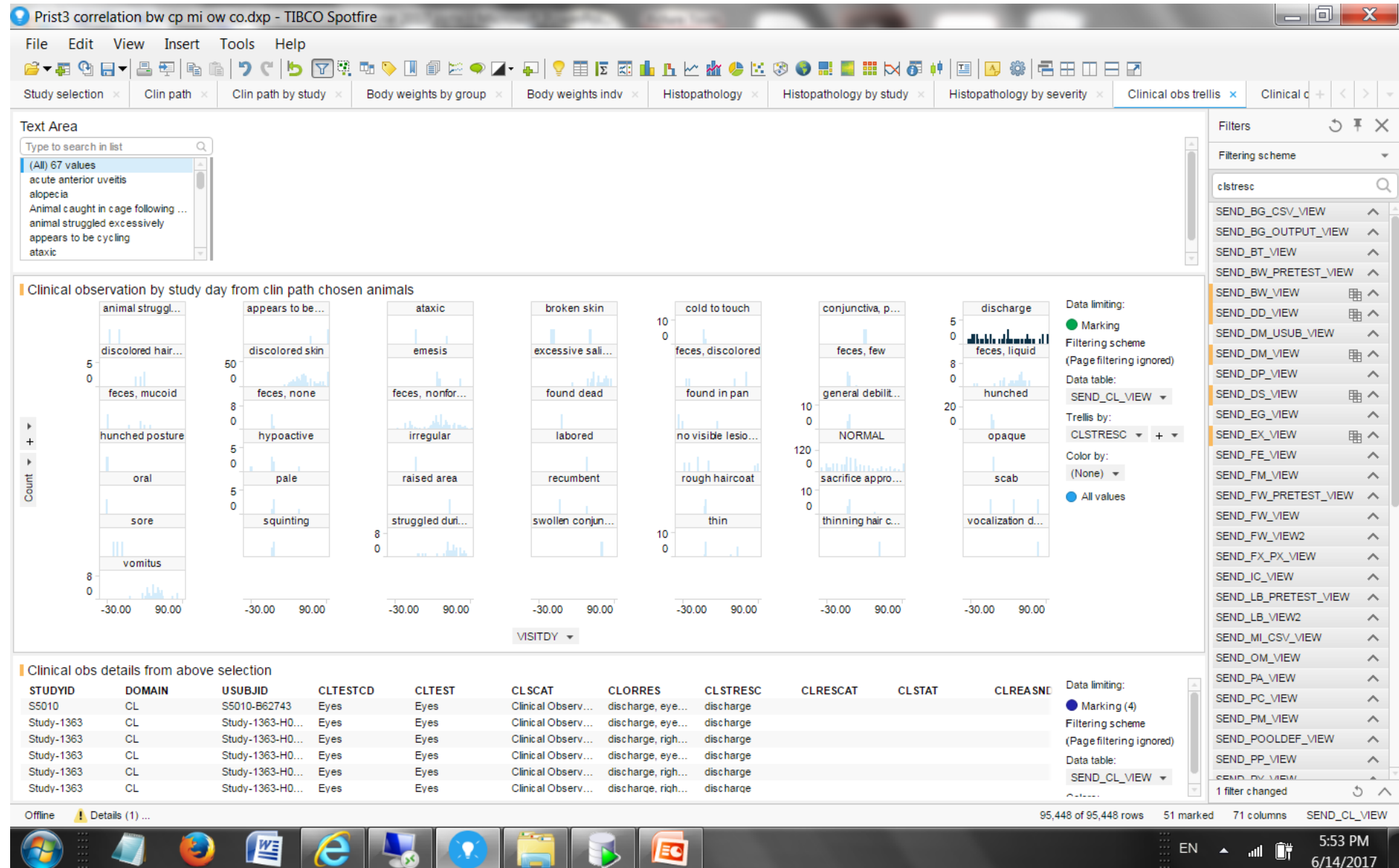
49,137 of 49,137 rows 23 marked 93 columns SEND_MI_VIEW

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HISTOPATH BY SEVERITY



Xybion Corporation
Powering Innovation & Efficiency



Xybion Corporation
Powering Innovation & Efficiency

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File Edit View Insert Tools Help

Study selection Clin path Clin path by study Body weights by group Body weights indiv Histopathology Histopathology by study Histopathology by severity Clinical obs trellis Clinical c

Text Area

Type to search in list

(All) 67 values

acute anterior uveitis

alopecia

Animal caught in cage following ...

animal struggled excessively

appears to be cycling

ataxic

Clinical observation by study day from clin path chosen animals

animal strugg... appears to be... ataxic broken skin cold to touch conjunctiva, p... discharge

discolored hair... discolored skin emesis excessive sali... feces, discolored feces, few feces, liquid

feces, mucoid feces, none feces, nonfor... found dead found in pan found no visible lesio... general debilit... hunched

hunched posture hypoactive irregular labored no visible lesio... NORMAL opaque

oral pale raised area recumbent rough haircoat sacrifice appro... scab

sore squinting struggled duri... swollen conjun... thin thinning hair c... vocalization d...

Count

-30.00 90.00

VISITDY

Clinical obs details from above selection

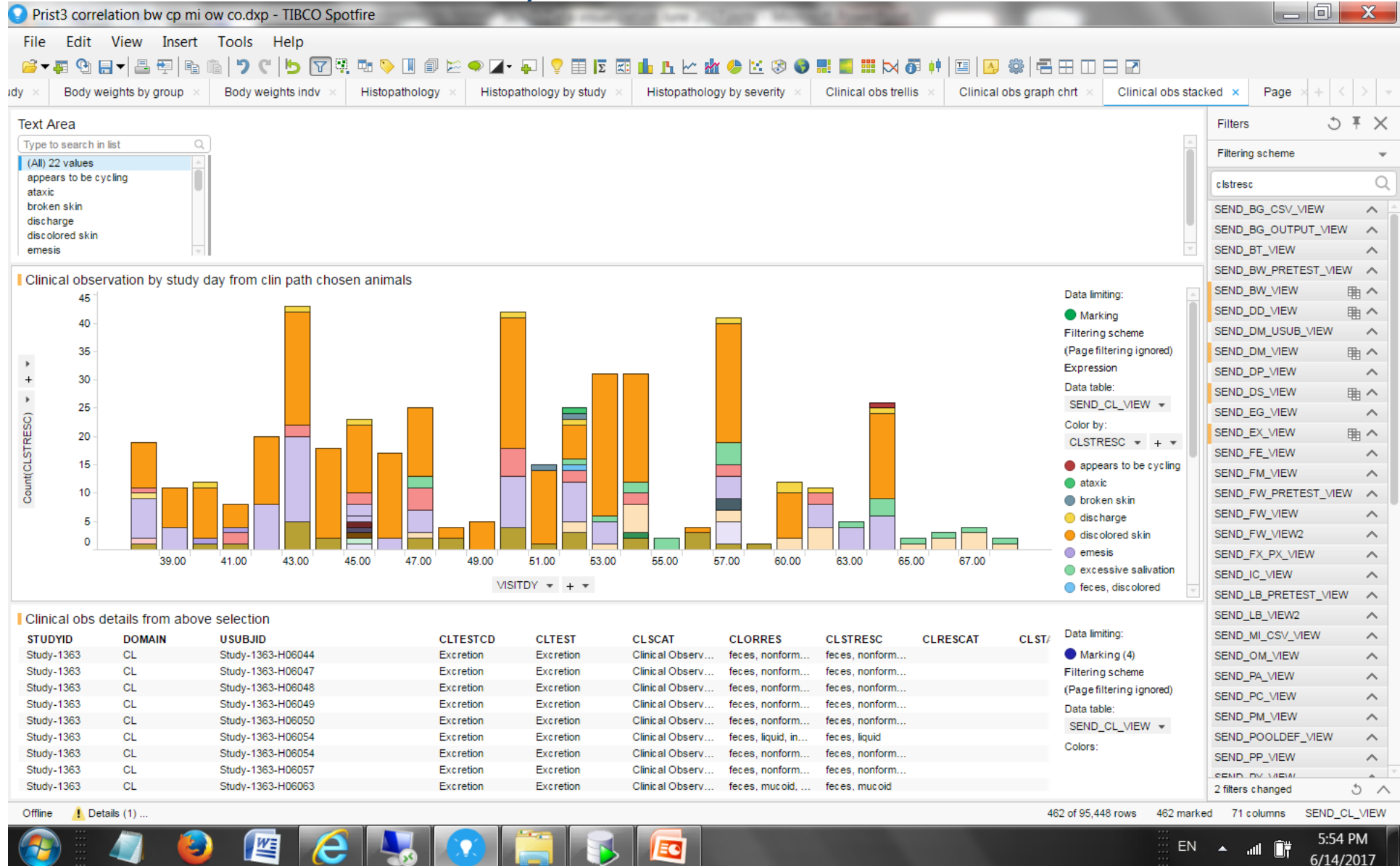
STUDYID	DOMAIN	USUBJID	CLTESTCD	CLTEST	CLSCAT	CLORES	CLSTRESC	CLRESCAT	CLSTAT	CLREASND
S5010	CL	S5010-B62743	Eyes	Eyes	Clinical Observ...	discharge, eye...	discharge			
Study-1363	CL	Study-1363-H0...	Eyes	Eyes	Clinical Observ...	discharge, eye...	discharge			
Study-1363	CL	Study-1363-H0...	Eyes	Eyes	Clinical Observ...	discharge, righ...	discharge			
Study-1363	CL	Study-1363-H0...	Eyes	Eyes	Clinical Observ...	discharge, eye...	discharge			
Study-1363	CL	Study-1363-H0...	Eyes	Eyes	Clinical Observ...	discharge, righ...	discharge			
Study-1363	CL	Study-1363-H0...	Eyes	Eyes	Clinical Observ...	discharge, righ...	discharge			

Offline Details (1) ...

95,448 of 95,448 rows 51 marked 71 columns SEND_CL_VIEW

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CLIN OBS BY DATES, STACKED



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