2008 Steering Committee Meeting

Database Discussion

MMPC 2008 Steering Committee meeting – Database Discussion

1) Review of current data in the system

2) Future requirements for data and data entry

3) Examples of what can be done once data is in system

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National Mouse Metabolic Phenotyping Centers

	Center	Orders Pending	Orders Accepted	Orders Completed	Orders Rejected	Experiments	PhenoAssays	Measurements	Animals	Strains	Publications
Current Year	Case Western Reserve University	9	0	0	0	0		0	0	0	0
	University of Cincinnati Medical Center	2	1	0	0	1		0	0	0	8
	University of Texas Southwestern Medical	0	0	0	0	0		0	0	0	16
	Vanderbilt University School of Medicine	5	14	15	4	4	51	1387	18	2	80
	University of Washington, Seattle	6	10	6	1	3	11	375	15	2	0
	Yale University School of Medicine	11	5	2	0	4	38	406	29	2	53
Second Round	Case Western Reserve University	9	0	0	0	0		0	0	0	NA
	University of Cincinnati Medical Center	6	10	28	0	1		0	0	0	NA
	University of Texas Southwestern Medical	2	0	0	0	0		0	0	0	NA
	Vanderbilt University School of Medicine	5	27	112	14	4	51	1387	18	2	NA
	University of Washington, Seattle	6	11	35	1	5	11	375	15	2	NA
	Yale University School of Medicine	30	7	6	0	4	38	406	29	2	NA
First Round	University of Cincinnati Medical Center	1	8	123	9	0		0	0	0	NA
	Center	5	0	18	3	0		0	0	0	NA
	Vanderbilt University School of Medicine	0	1	807	138	47	82	22230	1245	45	NA
	Yale University School of Medicine	16	34	51	3	12	23	4413	247	11	NA

First Round data has been entered into the new system

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IPGTT and Insulin Sensitivity(TSC1c vs. C57BL/6J)- May 3, 2007

SUMMARY

Investigator	Yeung, Raymond
Description	Performed IPGTT on two mice provided by Dr. Yeung. We also used our own five C57BL/6J mice as controls for this experiment. Mice were fasted for 16 hours and 1mg/g body glucose was injected intraperitoneally. Blood glucose measurements were obtained at 0, 5, 15, 30, 60, and 120 minutes with the OneTouch Ultra blood glucose monitoring system and test strips. About 50ul of blood was collected at 30' during IPGTT for insulin analysis. The purpose of this experiment was to compare and understand how Dr. Yeung's two mice reacted to intraperitoneal injection of glucose. This will help Dr. Yeung understand the mice's insulin levels and how sensitive they are to glucose.
Status	Completed
Public Release	9/17/2010

DATA SUMMARY

Type	Count
Animals	7
Experimental Conditions	5
Catalog Items	0
Phenotype Assays	3
Phenotype Measurements	252
Histology Images	0

ANIMALS

Add / Edit

Strain Name	Common Name	Females	Males	Unknown
C57BL/6J	C57BL/6J	5	0	0
STOCK Tsc1^{tm1Djk}/J	STOCK Tsc1^{tm1Djk}/J	2	0	0

EXPERIMENTAL CONDITIONS

Add / Edit

Name	Units
Experimental Group	one of [Control, Experiment]
fast duration	hour (hr)
glucose dose	milligrams per kilogram (mg/kg)
insulin dose	units per kilogram (U/kg)
time sample taken	minute (min)

PHENOTYPE ASSAYS

Add / Edit

Name	Abbreviation
blood glucose	blood glucose
body weight (rodent)	W rodent
blood insulin	blood insulin

Back to Top

Mouse Diet

Name	Description
Experimental Factor: mouse diet	
3mAIN76(HF0.18)	AIN76 high-fat 0.18% cholesterol fed 3mos @ 3mos old
3mAIN76(HF0.18)early	AIN76 high-fat 0.18% cholesterol fed 3mos @ 4wks old
3mAIN76(HF0.3)	AIN76 high-fat 0.3% cholesterol fed 3mos @ 3mos old
3mAIN76(HF0.3)early	AIN76 high-fat 0.3% cholesterol fed 3mos @ 4wks old
3mAIN76(LF0.1)	AIN76 low-fat 0.1% cholesterol fed 3mos @ 3mos old
3mAIN76(LF0.1)early	AIN76 low-fat 0.1% cholesterol fed 3mos @ 4wks old
3mAIN76(LF0.15)	AIN76 low-fat 0.15% cholesterol fed 3mos @ 3mos old
3mAIN76(LF0.15)early	AIN76 low-fat 0.15% cholesterol fed 3mos @ 4wks old
4mAIN76(LF0.0)early	AIN76 low-fat 0.0% cholesterol fed 4 months @ 4wks old
4mAIN76(LF0.02)	AIN76 low-fat 0.02% cholesterol fed 4mos @ 4wks old
4mAIN76(LF0.15)early	AIN76 low-fat 0.15% cholesterol fed 4 months @ 4wks old
4mAIN76(LF0.3)early	AIN76 low-fat 0.3% cholesterol fed 4 months @ 4wks old
4mAIN76(LF0.5)early	AIN76 low-fat 0.5% cholesterol fed 4 months @ 4wks old
4wAIN76(HF)	AIN76 high-fat fed 4wks @ 3mos old
4wAIN76(LF)	AIN76 low-fat fed 4wks @ 3mos old
AIN76(HF)	AIN76 high-fat
AIN76(HF0.18)	AIN76 high-fat 0.18% cholesterol
AIN76(HF0.30)	AIN76 high-fat 0.30% cholesterol
AIN76(LF)	AIN76 low-fat
AIN76(LF0.00)	AIN76 low-fat 0.00% cholesterol
AIN76(LF0.02)	AIN76 low-fat 0.02% cholesterol
AIN76(LF0.10)	AIN76 low-fat 0.10% cholesterol
AIN76(LF0.15)	AIN76 low-fat 0.15% cholesterol
AIN76(LF0.30)	AIN76 low-fat 0.30% cholesterol
AIN76(LF0.50)	AIN76 low-fat 0.50% cholesterol

BioServ F3282	Rodent Hig Fat Diet. Protein 20.%, Fat 35.5%, Fiber 0.0%, Ash 3.2%, Moisture <5.0%, Carbohydrate 36.3%. Ingredients: Lard, Casein, Dextrose, Sucrose, DL-Methionine, Choline Chloride, Vitamin Mix and Mineral Mix
Harlan8604	Harlan Teklad No.8604 (6% fat by weight)
Harlan90221	Harlan Teklad No. 90221 75% chow, 7.5% casein, 7.5% cocoa butter, 2.5% dextrose, 1.625% sucrose, 1.625% dextrin, 1.25% cholesterol, 1.25% cellulose, 0.875% mineral mix (AIN-76), 0.25% vitamin mix (Teklad 40060), 0.125% choline chloride, and 0.5% cholate
HarlanTD 7012	Crude Protein (Min) 19.0%, Crude Fat (Min) 5.0%, Crude Fiber (Max) 5.0%, Protein %19.92, Fat %5.67, Fiber % 4.37, Ash %6.48, Ingredients - Ground corn, dehulled soybean meal, ground oats, wheat middlings, dehydrated alfalfa meal, soybean oil, corn gluten
HarlanTD88317	Harlan Teklad TD.88317 (Western Diet)
LabDiet 5001	crude protein (23.0%), crude fat (4.5%), crude fiber (6.0%), Ash (< 8.0%), minerals (2.5%)
LabDiet 5008	crude protein (23.0%), crude fat (6.5%), crude fiber (4.0%), Ash (< 8.0%), minerals (2.5%)
LabDiet 5K52	LabDiet JL Rat and Mouse/Auto 6F This is a breeding diet used at the Jackson Laboratory. Protein 19.3%, Fat (ether extract) 6.2%, Fat (acid hydrolysis) 7.2%, Fiber 4.3%, Ash 6.5%. Ingredients: Ground wheat, ground corn, wheat middlings, grounoats, fish
LabDiet 5LG4	LabDiet JL Rat and Mouse/Irr 6F diet formulas used for breeding and maintenance at The Jackson Laboratory. Protein 19.3%, Fat (ether extract) 6.2%, Fat (acid hydrolysis) 7.2%, Fiber 4.3%, Ash 6.5% Ingredients: ground wheat, ground corn, wheat middlings
LabDiets-5LA6	NIH Rat & Mouse/Auto 11F 19.7% Protein, 12.2% Fat (ether extract), 13.1% Fat (acid hydrolysis), 4% Fiber, 6.3% Ash. Ingredients: ground wheat, wheat middlings, grounoats, dehulled soybean meal, fish meal, groun corn, soybean oil, corn gluten meal, dehydr
Surwit58Cornstarch	Surwit 58% kcal fat with cornstarch (Research Diets D12330)
Surwit58Sucrose	Surwit 58% kcal fat with Sucrose (Research Diets D12331)
Western	Western Diet (Research Diets #D12079B)

Need to unify assay names so they are consistent from center to center

Need to start collecting protocols for the MMPC tests.

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Experiment Data

Experiments | Edit Experiment | View Order | Download Template | Upload Data | Browse Data

IPGTT and Insulin Sensitivity(TSC1c vs. C57BL/6J)- May 3, 2007

SUMMARY

Investigator	Yeung, Raymond
Description	Performed IPGTT on two mice provided by Dr. Yeung. We also used our own five C57BL/6J mice as controls for this experiment. Mice were fasted for 16 hours and 1mg/g body glucose was injected intraperitoneally. Blood glucose measurements were obtained at 0, 5, 15, 30, 60, and 120 minutes with the OneTouch Ultra blood glucose monitoring system and test strips. About 50ul of blood was collected at 30' during IPGTT for insulin analysis. The purpose of this experiment was to compare and understand how Dr. Yeung's two mice reac[illegible] understan[illegible]
Status	Complete
Public Release	9/17/2010
Animal Age	*Measured*

DATA SUMMARY

Type	Count
Animals	7
Experimental Conditions	5
Catalog Items	0
Phenotype Assays	3
Phenotype Measurements	252
Histology Images	0

DATA SUBMISSION

- Add / Edit Animals
- Add / Edit Experimental Cond
- Add / Edit Catalog Items
- Add / Edit Phenotype Assays
- Add / Edit Histology
- Download Template
- Upload Data

DATA ANALYSIS

- ANOVA Analysis
- Basic Statistics
- Browse Data
- Chart Exploration

ANIMALS

Strain Name	Comm			
C57BL/6J	C57BL			
STOCK Tsc1^{tm1Djk}/J	STOCK Tsc1^{tm1Djk}/J	2	0	0

EXPERIMENTAL CONDITIONS

Add / Edit

Name	Units
Experimental Group	one of [Control, Experiment]
fast duration	hour (hr)
glucose dose	milligrams per kilogram (mg/kg)
insulin dose	units per kilogram (U/kg)
time sample taken	minute (min)

PHENOTYPE ASSAYS

Add / Edit

Name	Abbreviation
blood glucose	blood glucose
body weight (rodent)	W rodent
blood insulin	blood insulin

Back to Top

Basic Statistics

This page will allow the user to analyze a single experiment or a MMPC dataset. The user will select the filter criteria for the data he/she wants for the analysis and click the 'Get Stats' button. Basic statistical information will be calculated for the data based on the filter criteria.

Basic Statistics Results

Select a chart type to view the data.

(•) Column Chart ( ) Line Chart ( ) X-Y Chart

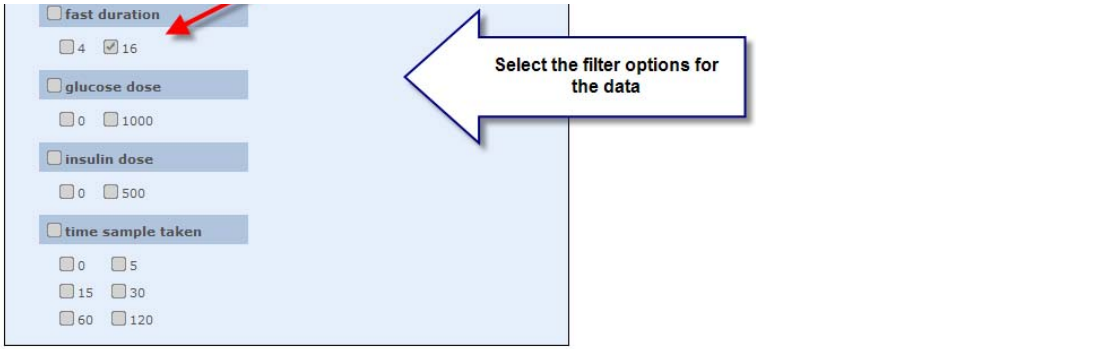
Y Axis: blood glucose (mg/dL) [Get Chart]

Data Filter Criteria:
Sex: Females Only
Age: No age filter given.

Experimental Factors:
fast duration (hr): 16

Experiment(s):
IPGTT and Insulin Sensitivity(TSC1c vs. C57BL/6J)- May 3, 2007

Assay	Strain	Sex	Num	Avg	Stdev	Median	Min	Max	Var	Skewness	Kurtosis
blood glucose (mg/dL)	C57BL/6J	Females	30	180.333	77.743	185.5	66	331	6043.956	0.14	-1.169
	STOCK Tsc1^{tm1Djk}/J	Females	12	106.417	48.023	101.5	53	210	2306.243	0.858	-0.35
W rodent (g)	C57BL/6J	Females	30	20.56	0.761	20.3	19.6	21.5	0.578	0.157	-1.666
	STOCK Tsc1^{tm1Djk}/J	Females	12	21.05	0.45	21.05	20.6	21.5	0.202	0	-2



Back to Top

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ANOVA Analysis

Based on the filter options either a One way ANOVA or Two way ANOVA is performed.

If the number

If the number

For each ANO
The Two way

tions.

elected.

Select Assay

Options:

Analyze gr

All pairwis

Perform A

Average
Strain
C57BL/6J
STOCK Tsc1
Overall

One Way A
Source
Between gro
Within group
Total

011

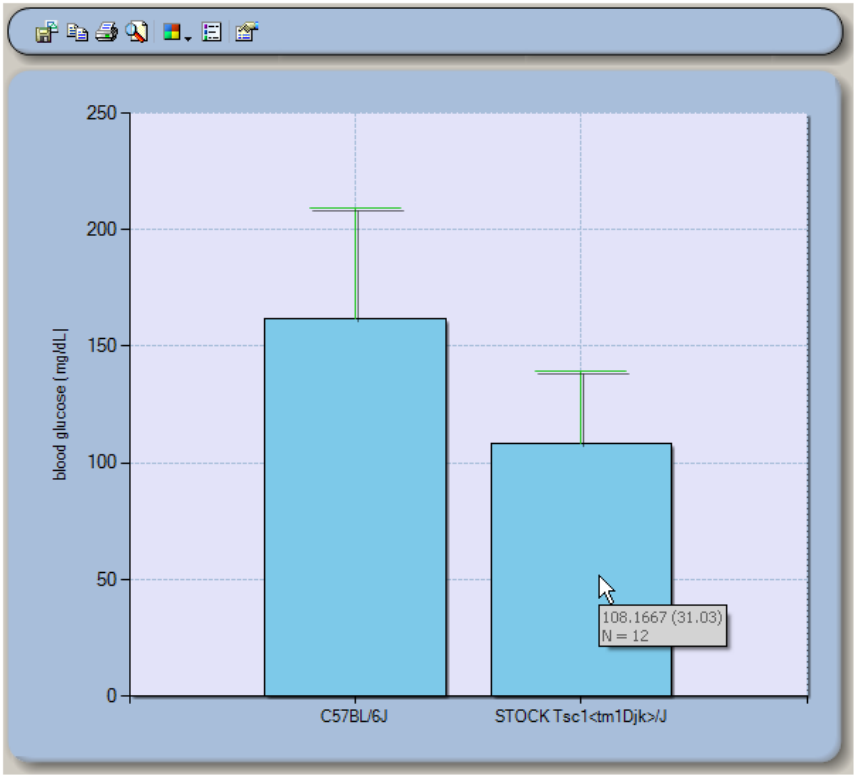

Chart Detail:

Data Filter Criteria:
Sex: Females Only
Age: No age filter given.

Experimental Factors:
fast duration (hr): 4

Experiment(s):
IPGTT and Insulin Sensitivity(TSC1c vs. C57BL/6J)- May 3, 2007

Chart Options:

Chart Title:

Y Axis Title:
blood glucose (mg/dL)

Y Axis:
blood glucose (mg/dL)

Refresh Chart

Related Links:

View Basic Statistics

View ANOVA Analysis

Instructions:

New Feature: Use the Chart Toolbar on top to save, print and change Chart Appearance.

To change the X or Y axis values, select from the appropriate dropdown control and click 'Refresh Chart'.

To change the Title and X or Y Axis Label, edit or fill in the appropriate text box and click 'Refresh Chart'.

The filter criteria used to select the data is given next to the upper right corner of the chart image. To change these criteria, return to the chart exploration page, select your criteria and click 'Get Chart' again.

To see the value of each data point mouse OVER each data point and a tooltip will pop up with the value.

Requested Details for: *All Pairwise Comparisons (Tukey Correction) - Females*

Strains

Strain 1	Strain 2	P value	Chart	Plot Charts
C57BL/6J	STOCK Tsc1^{tm1Djk}/J	**0.00105589**		

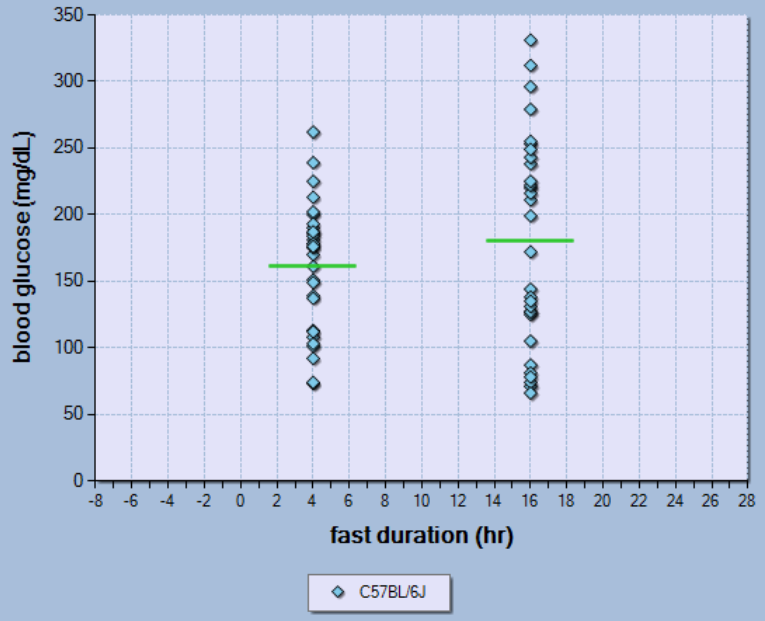

Chart Detail:

Data Filter Criteria:
Sex: Females Only
Age: No age filter given.

Experimental Factors:
None Selected.

Experiment(s):
IPGTT and Insulin Sensitivity(TSC1c vs. C57BL/6J)- May 3, 2007

Chart Options:

Chart Title:

Y Axis Title: blood glucose (mg/dL)

X Axis Title: fast duration (hr)

Y Axis: blood glucose (mg/dL)

X Axis: fast duration

Strain: C57BL/6J

Refresh Chart

Related Links:

View Basic Statistics

View ANOVA Analysis

Instructions:

New Feature: Use the Chart Toolbar on top to save, print and change Chart Appearance.

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To see the value of each data point mouse OVER each data point and a tooltip will pop up with the value.

60 120

Back to Top

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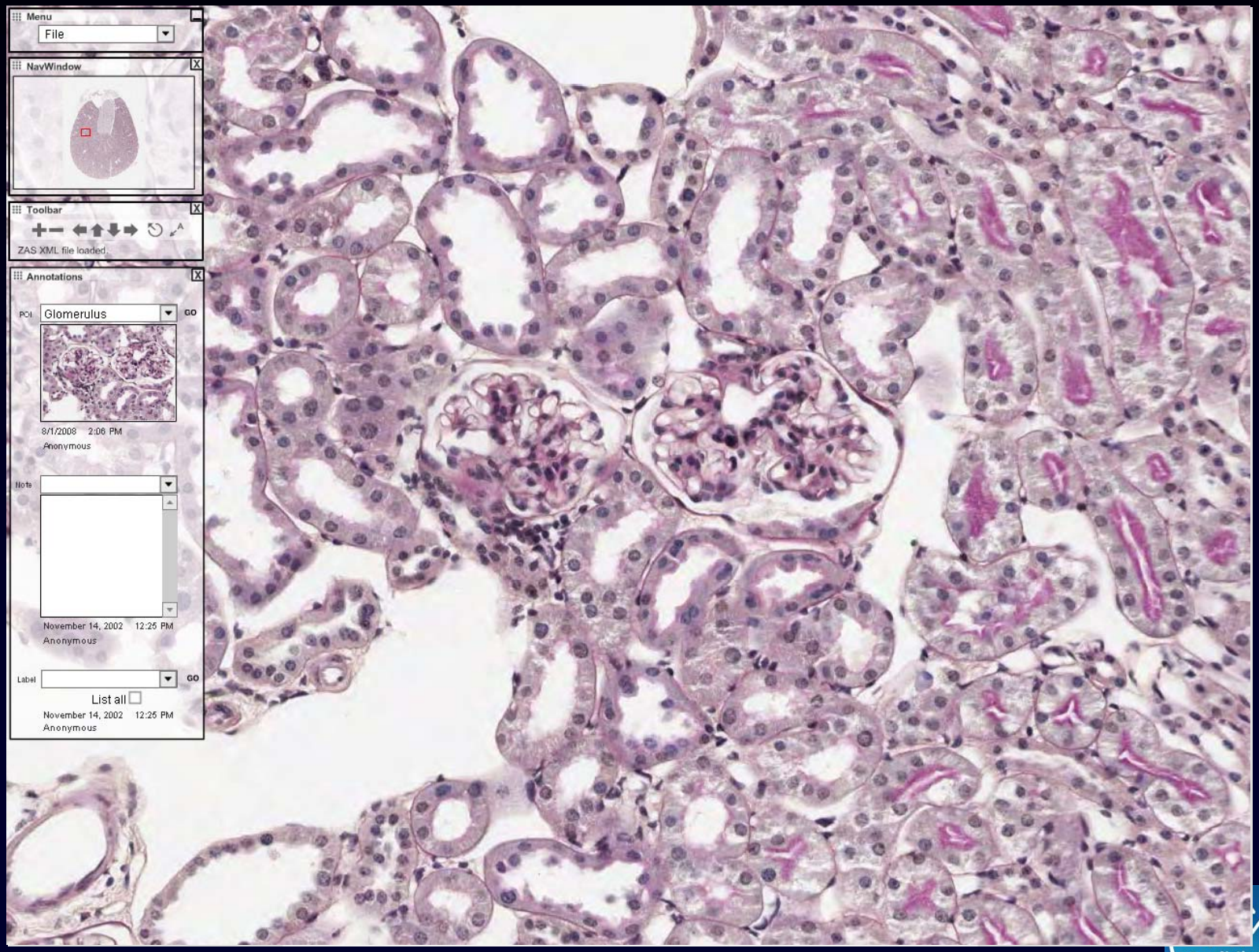
Histology and image data can be added and annotated.



The End

If you have any problems, questions or concerns don't hesitate to email us.
Use any of the following addresses:

General help:
help@mmpc.org

Data, assays, experiment help:
datahelp@mmpc.org

Website problems
webadmin@mmpc.org

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