GUI Mass Spectrometry interaction STatistics (MiST)

Category	Proteomics
Author	Aliya Haas
Version	4

Labels:

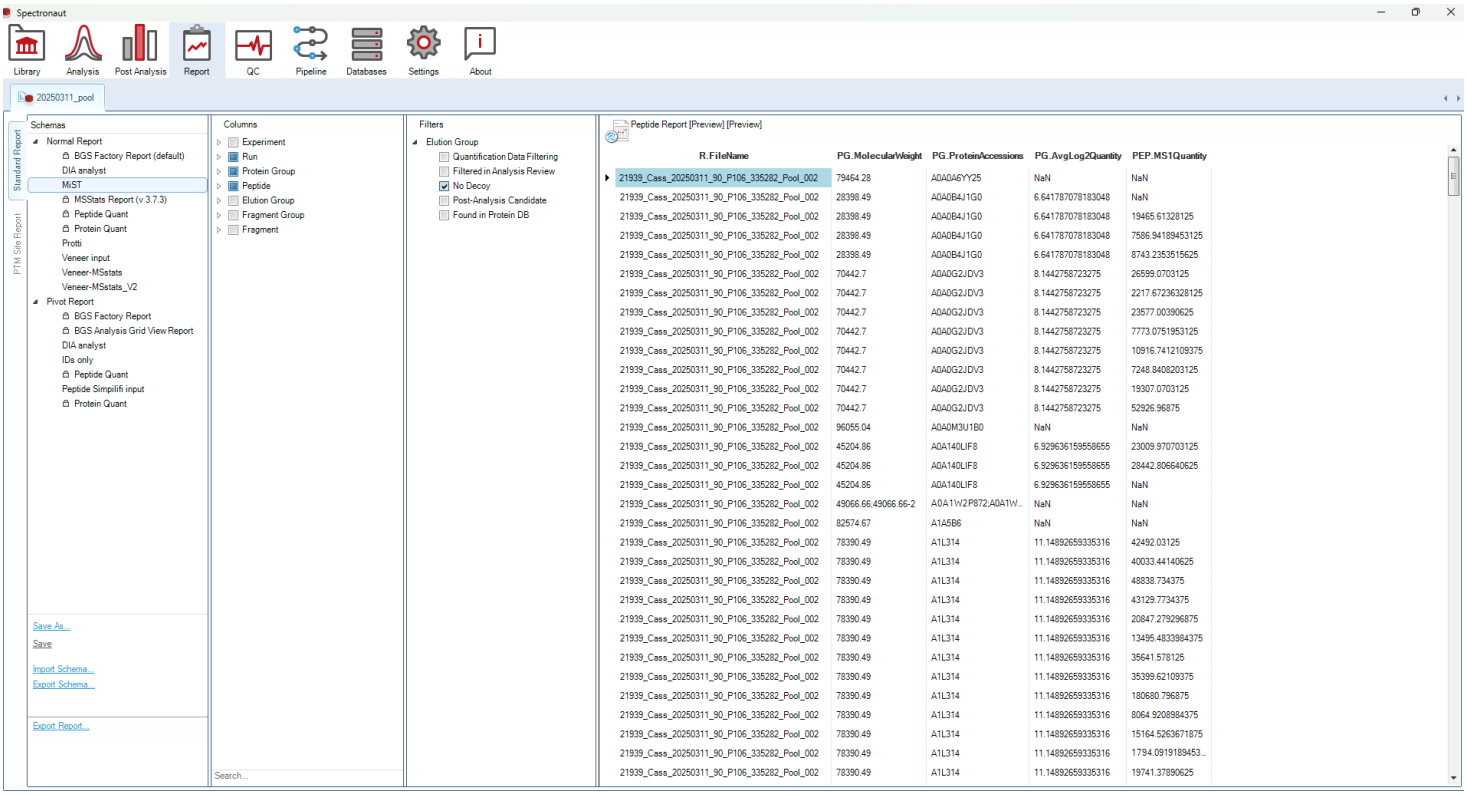
What is MiST? And why do we need a GUI and a Python script for it?

Mass Spectrometry interaction STatistics (MiST) is a web tool created by the University of California San Francisco that scores affinity purification-mass spectrometry data. This tool is useful for protein-protein interaction analysis. Groups are compared using what is referred to as "bait(s)" (protein(s) of interest). There are multiple programs called MiST that do function similarly, but this web version from UCSF was the most well-documented and user-friendly. The link is provided at the end of this E-Lab. Their website provides documentation and contacts to reach out to if you are experiencing issues.

The one challenge MiST presented was the input format. The input was an extremely specific (guidelines can be found on the website). All of the information could easily be provided from a Spectronaut output, however, the formatting MiST expected was horizontal as opposed to vertical, but also had some other unique column formats. Instead of having to individually sift through each column and row of a Spectronaut report, a Python script was created to automate this process. In Spectronaut, there is a report setting labelled "MiST". It will create a Spectronaut report with all the columns necessary to work with this Python script. To improve the user experience of this Python script, a simple GUI was created. It can be used without a GUI, but it is strongly recommended to use the GUI.

Run Spectronaut on .raw files

Export Spectronaut Report using the MiST Schema



Spectronaut_report.png

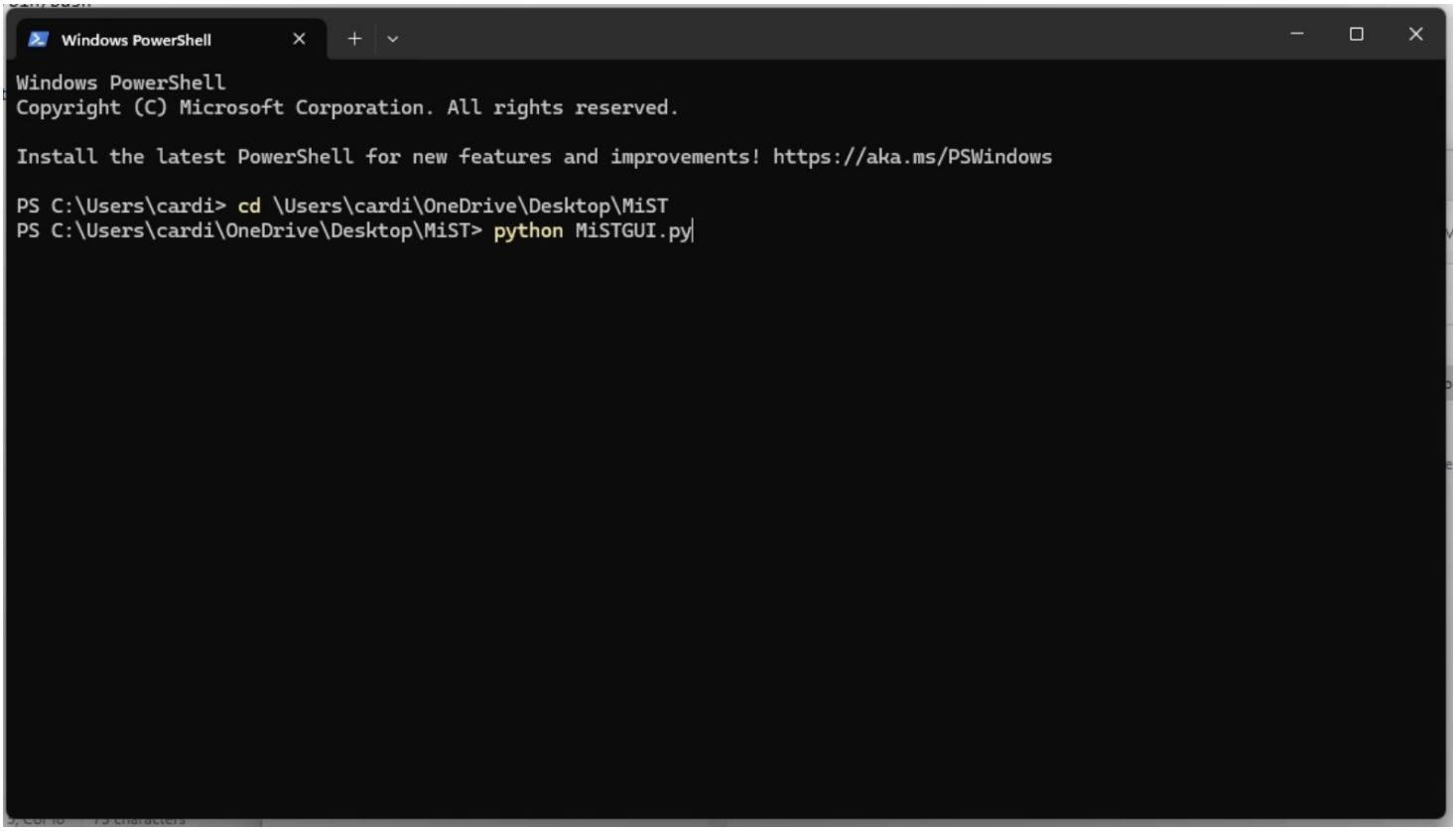
Open Terminal

You may need to search for it in the search bar

Change directory to where the MiST Converter script is located, then run Python script

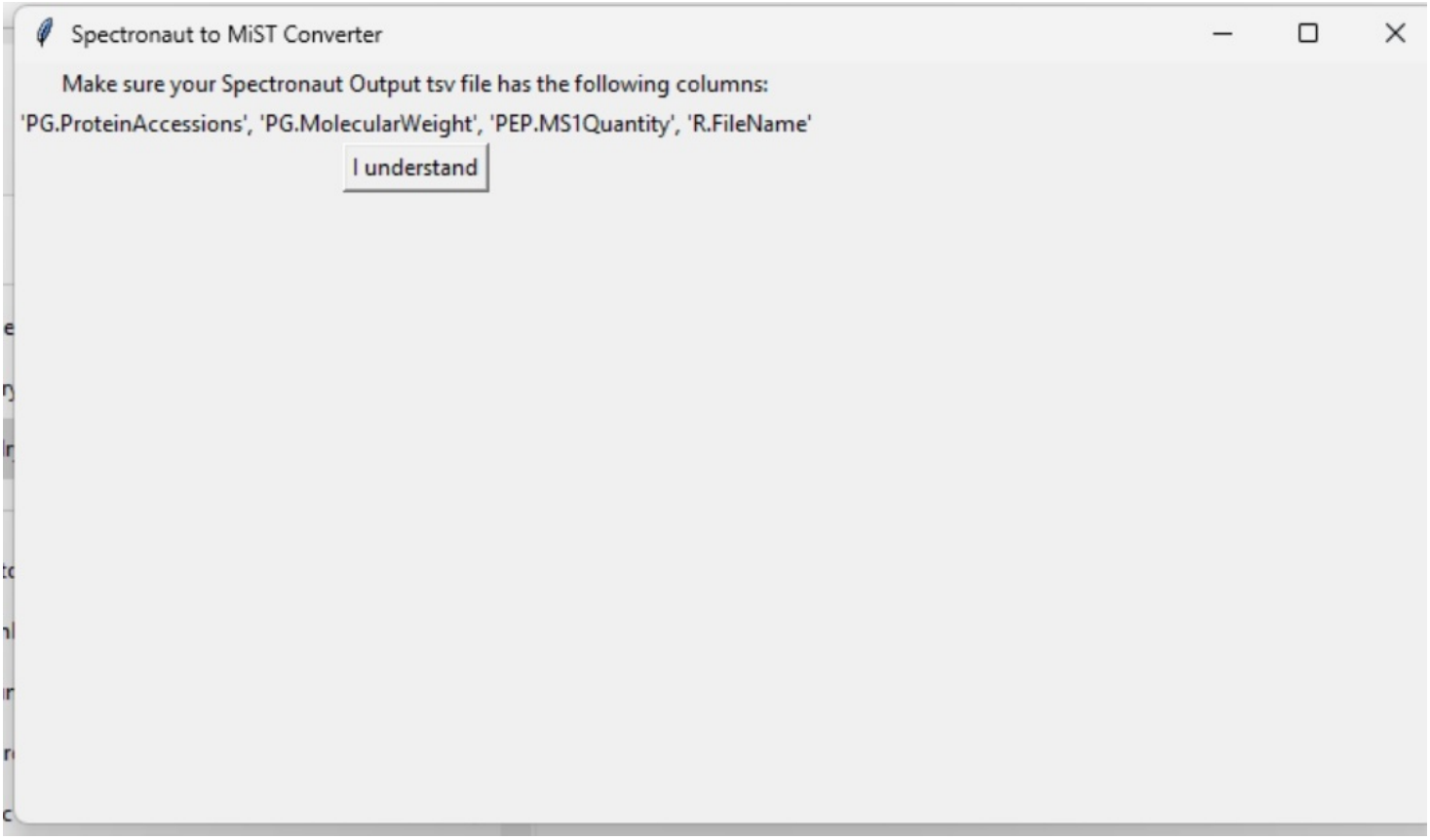
Type the line: "cd \Users\cardi\OneDrive\Desktop\MiST", hit "Enter"

Then, type the line "python MiSTGUI.py", then hit "Enter"



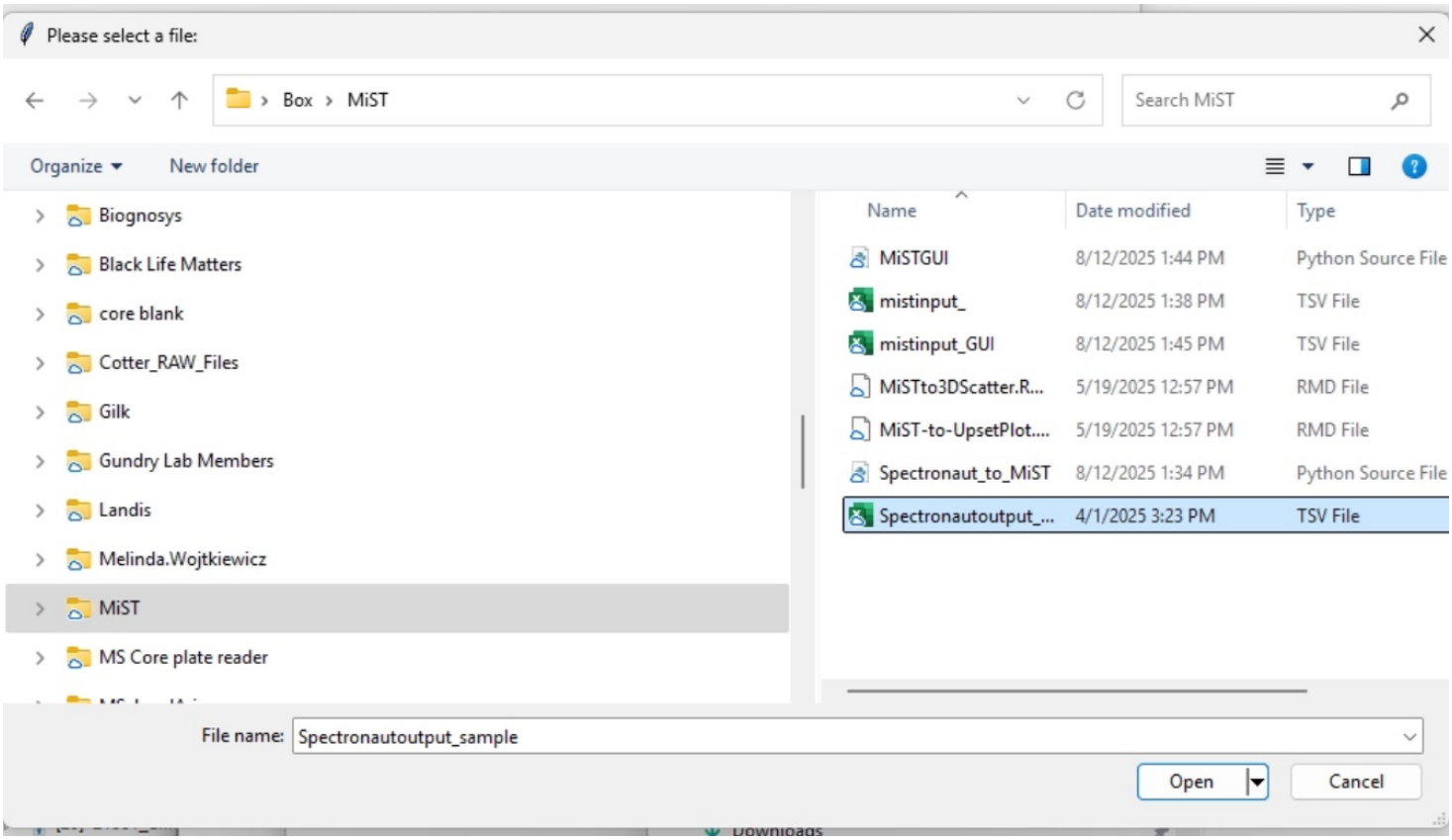
s0.jpg

Read the message, then click "I understand"



s1.jpg

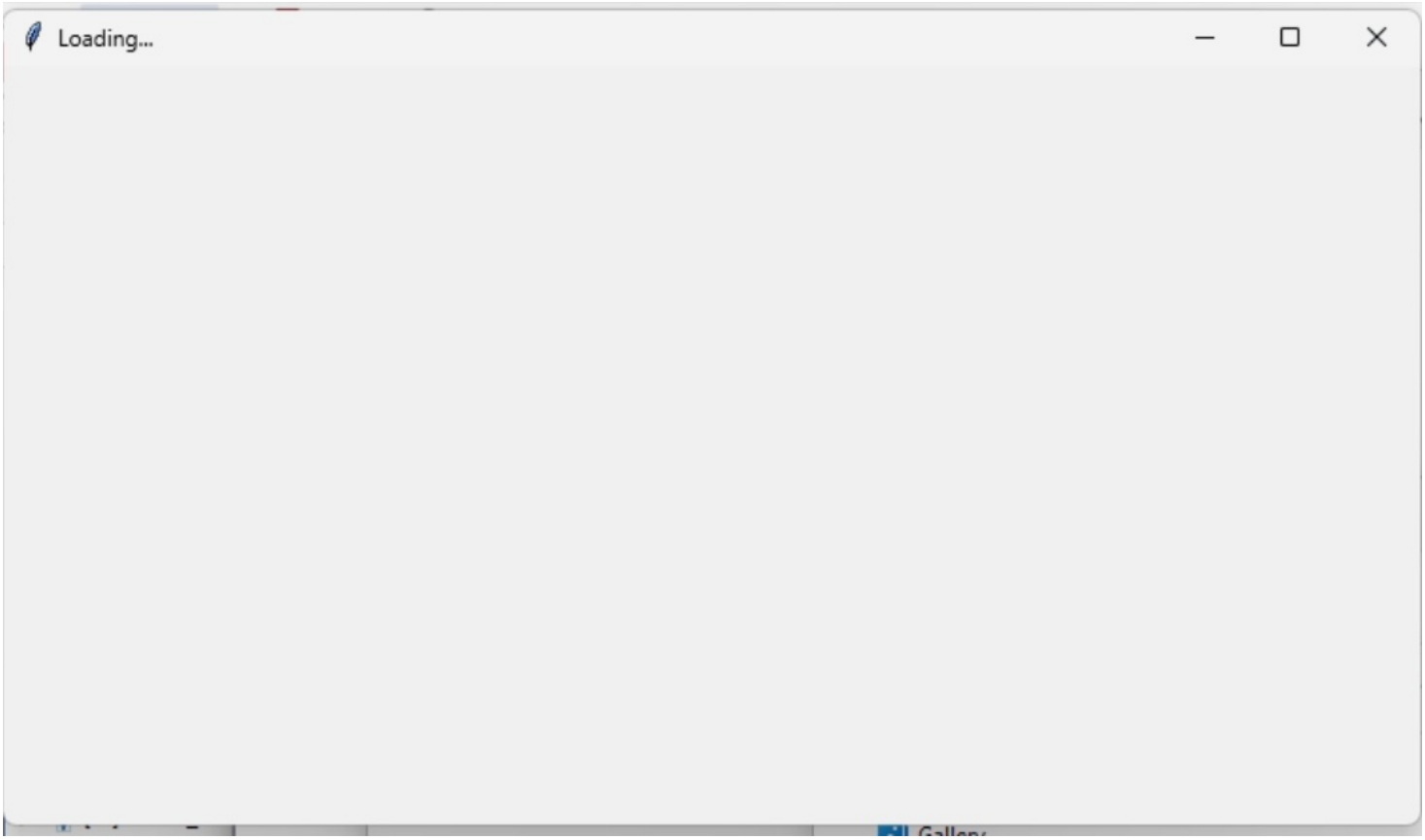
The program will now ask you to select a file. Choose the .tsv output from Spectronaut



s2.jpg

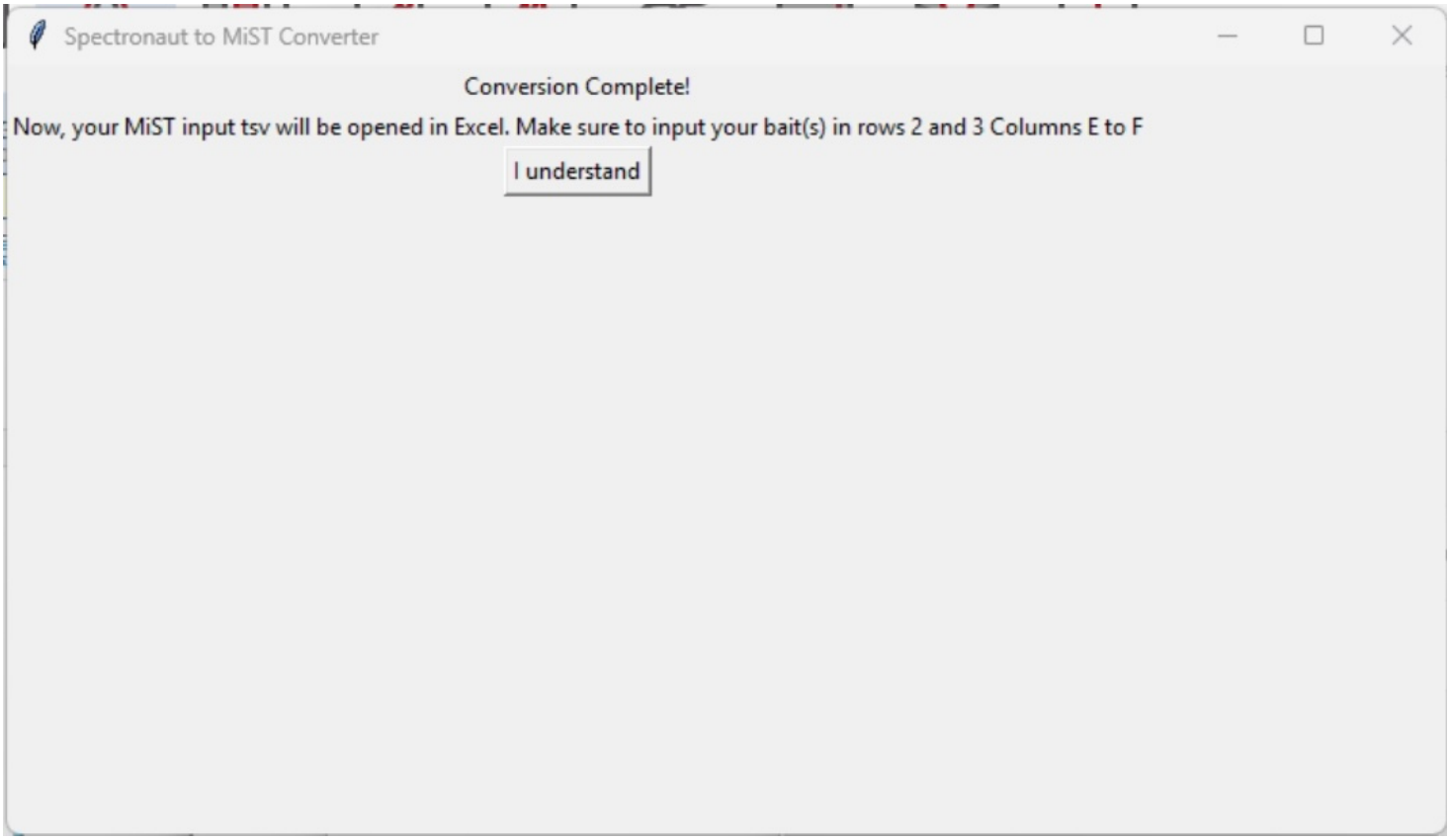
Wait for it to load (Do not push anything, espeically not the "x")

Typically, this part takes 5-10 minutes.



s3.jpg

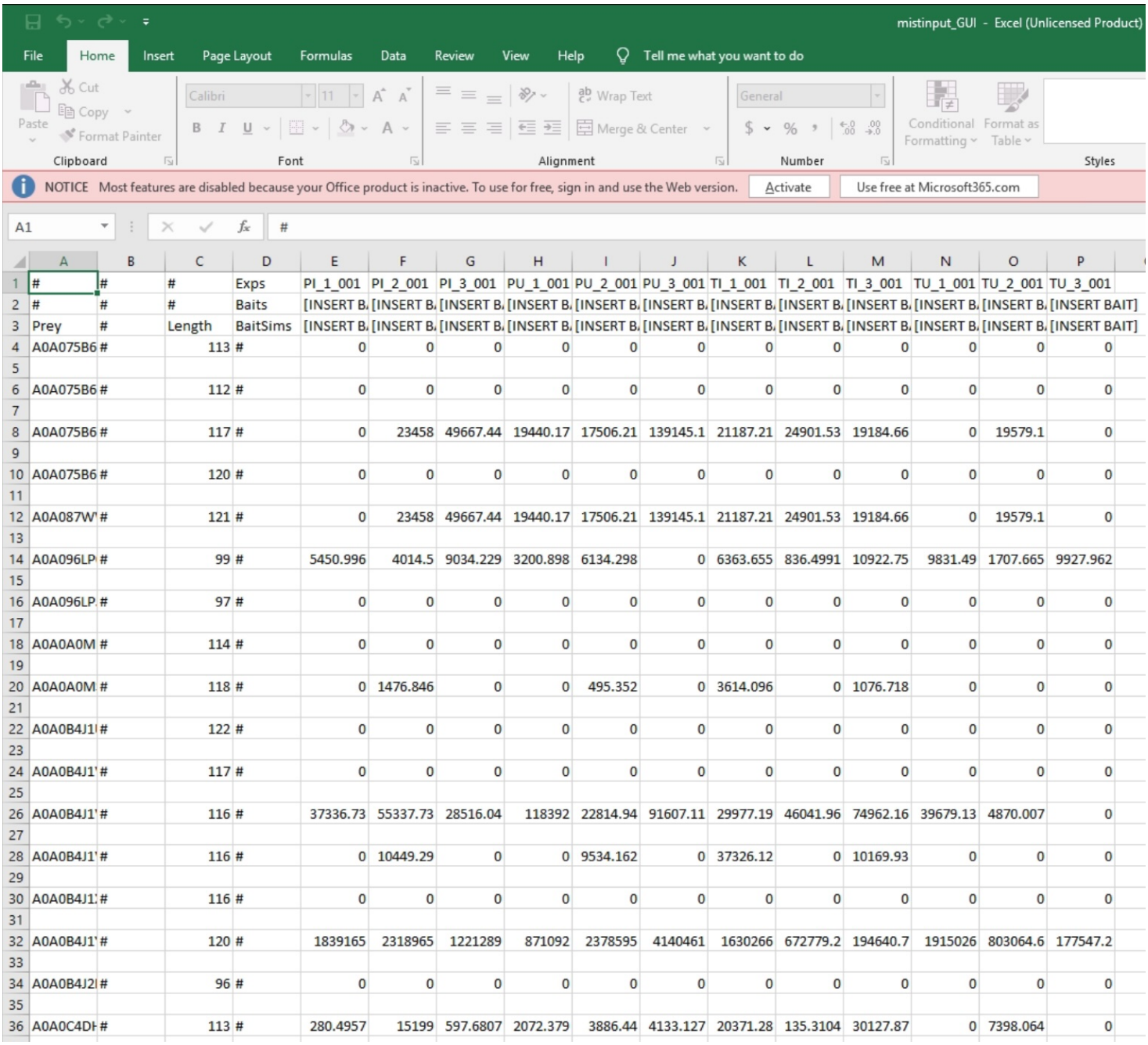
Conversion from Spectronaut to MiST input is complete! Read the message, then click "I Understand"



s5.jpg

After you click "I understand", your MiST-ready tsv file will be opened up in Excel

Insert your baits in Rows 2 and 3



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	#	#	#	Exps	PI_1_001	PI_2_001	PI_3_001	PU_1_001	PU_2_001	PU_3_001	TI_1_001	TI_2_001	TI_3_001	TU_1_001	TU_2_001	TU_3_001
2	#	#	#	Baits	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT BAIT]
3	Prey	#	Length	BaitSims	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT B.	[INSERT BAIT]
4	A0A075B6	#	113	#	0	0	0	0	0	0	0	0	0	0	0	0
5																
6	A0A075B6	#	112	#	0	0	0	0	0	0	0	0	0	0	0	0
7																
8	A0A075B6	#	117	#	0	23458	49667.44	19440.17	17506.21	139145.1	21187.21	24901.53	19184.66	0	19579.1	0
9																
10	A0A075B6	#	120	#	0	0	0	0	0	0	0	0	0	0	0	0
11																
12	A0A087W'	#	121	#	0	23458	49667.44	19440.17	17506.21	139145.1	21187.21	24901.53	19184.66	0	19579.1	0
13																
14	A0A096LP	#	99	#	5450.996	4014.5	9034.229	3200.898	6134.298	0	6363.655	836.4991	10922.75	9831.49	1707.665	9927.962
15																
16	A0A096LP	#	97	#	0	0	0	0	0	0	0	0	0	0	0	0
17																
18	A0A0A0M	#	114	#	0	0	0	0	0	0	0	0	0	0	0	0
19																
20	A0A0A0M	#	118	#	0	1476.846	0	0	495.352	0	3614.096	0	1076.718	0	0	0
21																
22	A0A0B4J1	#	122	#	0	0	0	0	0	0	0	0	0	0	0	0
23																
24	A0A0B4J1'	#	117	#	0	0	0	0	0	0	0	0	0	0	0	0
25																
26	A0A0B4J1'	#	116	#	37336.73	55337.73	28516.04	118392	22814.94	91607.11	29977.19	46041.96	74962.16	39679.13	4870.007	0
27																
28	A0A0B4J1'	#	116	#	0	10449.29	0	0	9534.162	0	37326.12	0	10169.93	0	0	0
29																
30	A0A0B4J1	#	116	#	0	0	0	0	0	0	0	0	0	0	0	0
31																
32	A0A0B4J1'	#	120	#	1839165	2318965	1221289	871092	2378595	4140461	1630266	672779.2	194640.7	1915026	803064.6	177547.2
33																
34	A0A0B4J2	#	96	#	0	0	0	0	0	0	0	0	0	0	0	0
35																
36	A0A0C4DI	#	113	#	280.4957	15199	597.6807	2072.379	3886.44	4133.127	20371.28	135.3104	30127.87	0	7398.064	0

s7.jpg

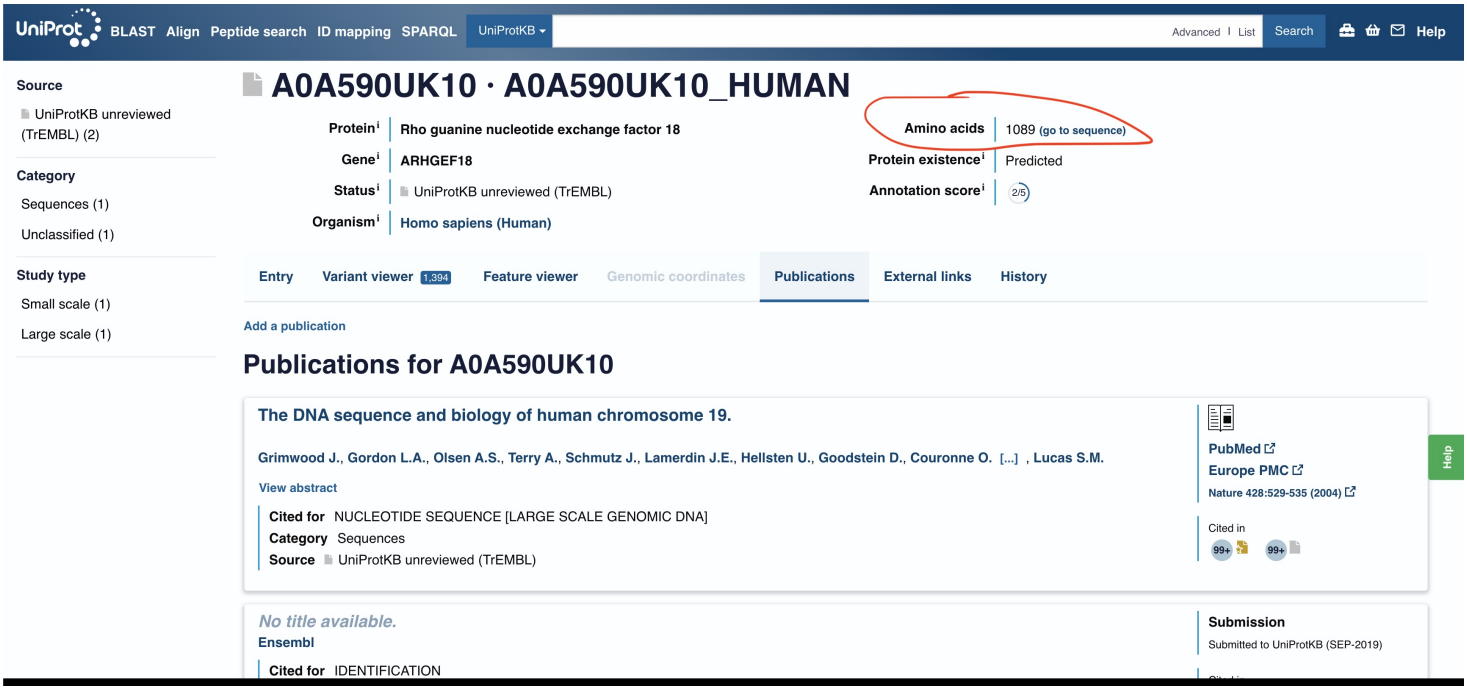
Check if there are any empty cells in the Prey Length column (Sometimes, the protein is not in the given FASTA, and thus the prey length can't be given in Spectronaut output)

A0A0C4DH2!	#	113	#	280.495667	15199	597.680664	2072.37911	3886.43978	4133.12663	20371.2834	135.310425	30127.8713	0	7398.06432	0
A0A0C4DH3:	#	115	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0C4DH3-	#	119	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0C4DH3(	#	115	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0C4DH4:	#	118	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0C4DH4:	#	115	#	157534.996	220334.989	57470.3807	108810.51	213591.368	429750.919	86176.9824	105615.951	43345.9376	142481.442	78297.6157	31915.7196
A0A0G2JMI3	#	117	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0J9YWU9	#	117	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0J9YXX1	#	116	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0J9YY99	#	117	#	0	521.275208	3668.36206	0	0	21762.2734	750.275757	30598.4026	16252.0039	0	7324.12695	2723.75659
A0A140TA62	#	449	#	4684.243	552.968218	1600.78304	3443.88536	14683.046	17568.5083	4183.47998	3608.17261	10181.485	1197.5092	4312.04289	0
A0A183	#	82	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A2R8Y4L2	#	311	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A2R8Y7D0	#	125	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A2R8YFR7	#	1491	#	14.0030022	834.693766	0	2506.56192	151.446604	0	5421.09694	4169.50614	3490.09576	6451.31396	1042.43901	3105.15491
A0A3B3IU46	#	130	#	51265.6315	35388.0472	31166.8071	30698.6705	64735.9319	158731.233	21431.9671	17468.4599	21174.44	25849.4284	33282.5415	24308.1509
A0A590UJ96	#	1078	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A590UK10	#		#	15310.6219	12868.5739	1125.68766	13917.8446	11574.0179	0	12417.867	10081.1078	9957.93284	11995.8023	27036.4528	7016.42985
A0A5F9ZHS7	#	282	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A804HLA8	#	65	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A8I5KTY6	#	282	#	0	0	0	0	0	0	0	0	0	0	0	0
A0AAG2SUK6	#	161	#	10022.6438	9983.52218	3613.91207	10174.0099	5364.67041	2711.5969	18370.6802	26435.3089	19570.7928	18812.3344	22445.0938	22180.9021
A0AAG2SVT6	#	95	#	0	0	0	0	0	0	0	0	0	0	0	0
A0AAG2TJA1	#	532	#	0	0	0	0	0	0	0	0	0	0	0	0
A0AAG2UWQ	#	801	#	5895.58478	7265.6321	6065.03861	5755.01992	6991.74108	12474.4096	20135.3981	97194.313	93222.9965	11723.9614	285607.481	64330.2971
A0AAG2UXZ5	#	1397	#	0	0	0	0	0	1204.4696	1958.05884	11646.2003	8027.88147	0	15723.2344	4229.92578
A0AV96	#	582	#	18971.8248	14274.0751	21261.7824	14172.4899	14429.6401	70242.0184	22677.9721	37925.1392	28249.1569	22512.765	74664.9194	26862.1505
A0AVF1	#	583	#	0	0	132.546102	18.4858042	0	273.936496	2738.29033	42499.0514	3804.09037	4577.70636	3175.96361	5920.25141
A0AVT1	#	1072	#	6868.06413	15594.0495	27662.4529	10844.8652	10115.1486	899.183043	35718.9662	66166.9274	18459.6138	48319.608	140188.241	53813.2449
A0FGR8	#	930	#	40430.483	38263.4346	48685.547	42563.7475	32698.6395	122703.438	45537.6851	110025.756	121186.112	37551.3053	315695.146	159727.196
A0FGR9	#	909	#	273.808614	417.957398	1035.47884	822.895508	786.751709	11146.8425	1372.04118	0	3501.69983	0	4315.73918	624.589152
A0JLT2	#	238	#	1082.08001	2489.09409	0	954.360889	2156.83418	741.383496	6874.32412	18368.632	10134.2895	7684.64248	26541.9647	10411.5271
A0JNW5	#	1492	#	0	806.906747	204.566964	320.100939	382.93757	1241.95703	881.678432	774.547015	1171.49566	752.679095	883.297006	2355.16289
A0MZ66	#	651	#	14514.1029	15524.4875	21628.0086	15275.1958	14809.315	28967.4897	7246.37571	10144.7109	8522.19528	6699.12415	9250.114	5612.79033
A0PJW6	#	200	#	863.304749	352.256744	12549.2738	3781.16013	0	0	8639.5957	2724.76044	6606.8783	19747.0632	15922.2993	12904.9094
A0PJZ3	#	464	#	0	0	0	0	0	0	0	0	0	0	0	0
A1A4S6	#	812	#	0	40.7512076	0	0	0	0	133149.706	4403.58322	4656.69371	825.91224	12441.0602	3268.70989
A1L0T0	#	616	#	11719.8312	9613.19174	10244.0829	9965.76533	6175.70761	4754.4643	21103.3148	16790.4403	13510.3732	28046.1986	21422.9384	23817.2328
A1L170	#	264	#	0	567.369238	0	308.497022	178.349951	0	1098.20563	4840.63774	10729.191	857.375977	5104.47915	1407.66121
A1L390	#	1221	#	40.5562099	45.0834961	103.577225	0	76.7853899	0	4321.6833	26613.5042	23407.3314	707.515283	34682.1731	4673.66739
A1L429	#	117	#	0	0	0	0	0	0	0	0	0	0	0	0
A1X283	#	923	#	54201.6567	8426.69889	12203.0118	8128.39558	8157.04913	685.942243	77707.6879	79523.0339	92833.541	138805.272	31730.001	110427.215
A2A3N6	#	864	#	19213.8007	27002.321	17555.0157	19774.4253	18452.9969	25979.358	22862.4782	21478.879	17998.3499	23247.6746	28139.7499	17143.2338
A2AJT9	#	762	#	999.480404	0	0	0	0	0	409.887516	61746.551	55086.2669	0	69785.1684	8118.19583
A2RRD8	#	539	#	0	0	0	0	0	0	0	3038.65268	2132.84019	74.4918562	18734.0182	1275.15069
A2RRP1	#	2441	#	944.846375	29.2698364	0	363.324738	0	0	0	0	0	0	1631.22839	0
A2RUB6	#	994	#	0	0	0	0	0	0	0	0	0	0	0	0
A2RUS2	#	1235	#	193.054981	0	0	605.216602	75.5854309	0	2057.60332	4494.63054	3441.14324	1845.0807	5000.26895	4354.44242
A2VDJ0	#	1630	#	0	0	0	0	0	0	0	0	0	0	0	0
A3KMH1	#	1952	#	11664.2892	9158.65063	11829.6276	11482.4252	8032.3557	46136.6241	10907.5321	18785.3978	10620.5157	14294.4747	16660.5153	15130.9222

A0.jpg

In a previous run, one protein did not have a length from the Spectronaut output, so the conversion script left the Length empty. When one value is empty in a column, MiST does not run.

If there is an empty cell, look up the length of that prey in UniProt, select the Amino Acid amount, and fill the cell with that value



uniprot.jpg

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
A0A0C4DH2!	#	113	#	280.495667	15199	597.680664	2072.37911	3886.43978	4133.12663	20371.2834	135.310425	30127.8713	0	7398.06432	0
A0A0C4DH3:	#	115	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0C4DH3-	#	119	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0C4DH3(	#	115	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0C4DH4:	#	118	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0C4DH4;	#	115	#	157534.996	220334.989	57470.3807	108810.51	213591.368	429750.919	86176.9824	105615.951	43345.9376	142481.442	78297.6157	31915.7196
A0A0G2JMI3	#	117	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0J9YWU9	#	117	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0J9YXX1	#	116	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A0J9YY99	#	117	#	0	521.275208	3668.36206	0	0	21762.2734	750.275757	30598.4026	16252.0039	0	7324.12695	2723.75659
A0A140TA62	#	449	#	4684.243	552.968218	1600.78304	3443.88536	14683.046	17568.5083	4183.47998	3608.17261	10181.485	1197.5092	4312.04289	0
A0A183	#	82	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A2R8Y4L2	#	311	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A2R8Y7D0	#	125	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A2R8YFR7	#	1491	#	14.0030022	834.693766	0	2506.56192	151.446604	0	5421.09694	4169.50614	3490.09576	6451.31396	1042.43901	3105.15491
A0A3B3IU46	#	130	#	51265.6315	35388.0472	31166.8071	30698.6705	64735.9319	158731.233	21431.9671	17468.4599	21174.44	25849.4284	33282.5415	24308.1509
A0A590UJ96	#	1078	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A590UK10	#	1089	#	15310.6219	12868.5739	1125.68766	13917.8446	11574.0179	0	12417.867	10081.1078	9957.93284	11995.8023	27036.4528	7016.42985
A0A5F9ZHS7	#	282	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A804HLA8	#	65	#	0	0	0	0	0	0	0	0	0	0	0	0
A0A8I5KTY6	#	282	#	0	0	0	0	0	0	0	0	0	0	0	0
A0AAG2SUK6	#	161	#	10022.6438	9983.52218	3613.91207	10174.0099	5364.67041	2711.5969	18370.6802	26435.3089	19570.7928	18812.3344	22445.0938	22180.9021
A0AAG2SVT6	#	95	#	0	0	0	0	0	0	0	0	0	0	0	0
A0AAG2TJA1	#	532	#	0	0	0	0	0	0	0	0	0	0	0	0
A0AAG2UWQ	#	801	#	5895.58478	7265.6321	6065.03861	5755.01992	6991.74108	12474.4096	20135.3981	97194.313	93222.9965	11723.9614	285607.481	64330.2971
A0AAG2UXZ5	#	1397	#	0	0	0	0	0	1204.4696	1958.05884	11646.2003	8027.88147	0	15723.2344	4229.92578
A0AV96	#	582	#	18971.8248	14274.0751	21261.7824	14172.4899	14429.6401	70242.0184	22677.9721	37925.1392	28249.1569	22512.765	74664.9194	26862.1505
A0AVF1	#	583	#	0	0	132.546102	18.4858042	0	273.936496	2738.29033	42499.0514	3804.09037	4577.70636	3175.96361	5920.25141
A0AVT1	#	1072	#	6868.06413	15594.0495	27662.4529	10844.8652	10115.1486	899.183043	35718.9662	66166.9274	18459.6138	48319.608	140188.241	53813.2449
A0FGR8	#	930	#	40430.483	38263.4346	48685.547	42563.7475	32698.6395	122703.438	45537.6851	110025.756	121186.112	37551.3053	315695.146	159727.196
A0FGR9	#	909	#	273.808614	417.957398	1035.47884	822.895508	786.751709	11146.8425	1372.04118	0	3501.69983	0	4315.73918	624.589152
A0JLT2	#	238	#	1082.08001	2489.09409	0	954.360889	2156.83418	741.383496	6874.32412	18368.632	10134.2895	7684.64248	26541.9647	10411.5271
A0JNW5	#	1492	#	0	806.906747	204.566964	320.100939	382.93757	1241.95703	881.678432	774.547015	1171.49566	752.679095	883.297006	2355.16289
A0MZ66	#	651	#	14514.1029	15524.4875	21628.0086	15275.1958	14809.315	28967.4897	7246.37571	10144.7109	8522.19528	6699.12415	9250.114	5612.79033
A0PJW6	#	200	#	863.304749	352.256744	12549.2738	3781.16013	0	0	8639.5957	2724.76044	6606.8783	19747.0632	15922.2993	12904.9094
A0PJZ3	#	464	#	0	0	0	0	0	0	0	0	0	0	0	0
A1A4S6	#	812	#	0	40.7512076	0	0	0	0	133149.706	4403.58322	4656.69371	825.91224	12441.0602	3268.70989
A1L0T0	#	616	#	11719.8312	9613.19174	10244.0829	9965.76533	6175.70761	4754.4643	21103.3148	16790.4403	13510.3732	28046.1986	21422.9384	23817.2328
A1L170	#	264	#	0	567.369238	0	308.497022	178.349951	0	1098.20563	4840.63774	10729.191	857.375977	5104.47915	1407.66121
A1L390	#	1221	#	40.5562099	45.0834961	103.577225	0	76.7853899	0	4321.6833	26613.5042	23407.3314	707.515283	34682.1731	4673.66739
A1L429	#	117	#	0	0	0	0	0	0	0	0	0	0	0	0
A1X283	#	923	#	54201.6567	8426.69889	12203.0118	8128.39558	8157.04913	685.942243	77707.6879	79523.0339	92833.541	138805.272	31730.001	110427.215
A2A3N6	#	864	#	19213.8007	27002.321	17555.0157	19774.4253	18452.9969	25979.358	22862.4782	21478.879	17998.3499	23247.6746	28139.7499	17143.2338
A2AJT9	#	762	#	999.480404	0	0	0	0	0	409.887516	61746.551	55086.2669	0	69785.1684	8118.19583
A2RRD8	#	539	#	0	0	0	0	0	0	0	3038.65268	2132.84019	74.4918562	18734.0182	1275.15069
A2RRP1	#	2441	#	944.846375	29.2698364	0	363.324738	0	0	0	0	0	0	1631.22839	0
A2RUB6	#	994	#	0	0	0	0	0	0	0	0	0	0	0	0
A2RUS2	#	1235	#	193.054981	0	0	605.216602	75.5854309	0	2057.60332	4494.63054	3441.14324	1845.0807	5000.26895	4354.44242
A2VDJ0	#	1630	#	0	0	0	0	0	0	0	0	0	0	0	0

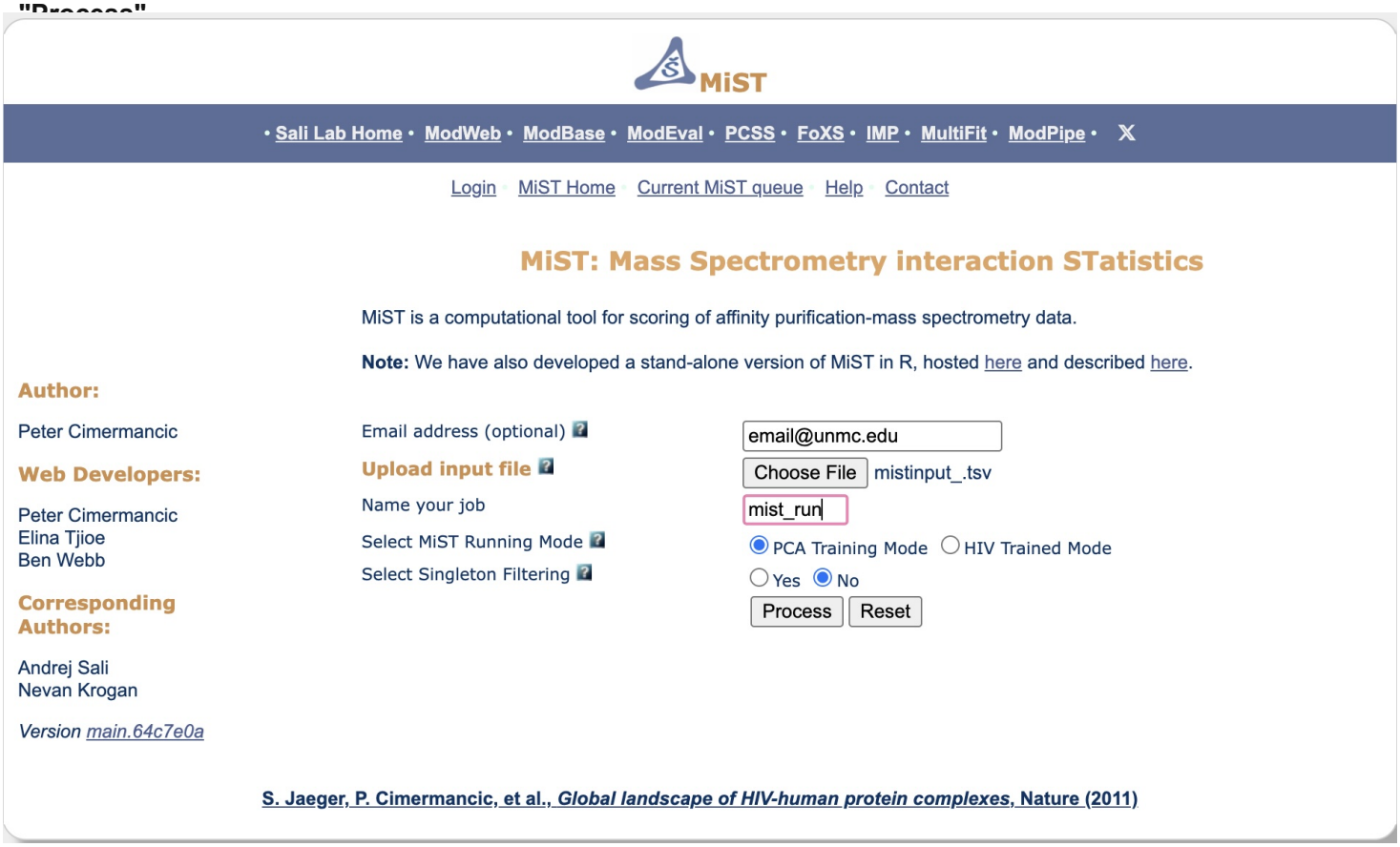
excel.jpg

Go to https://modbase.compbio.ucsf.edu/mist/

https://modbase.compbio.ucsf.edu/mist/

If you have issues with it, just click on the link here

Fill out your email, select your tsv (it will be labelled as "mistinput_.csv" in the same directory as the MiSTGUI.py file), choose "PCA Training Mode", click "No" for Select Singleton Filtering, then click "Process"



mist.jpg

MiST will send you a link to the results in your email, once you click on the link, it will look like this

```
#
#       ***************************************************************
#       *  Welcome to MiST - Mass spectrometry Interaction STatistics   *
#       *       written by Peter Cimermancic (Krogan/Sali Lab)          *
#       *                          May 2010                             *
#       ***************************************************************
#
# Number of Preys: 9203
# Number of Experiments: 12
# Number of Baits: 3
#
# Percentage of variance described (cumulatively):
# PC1: 0.82557
# PC2: 1.00000
# PC3: 1.00000
#
# Eigenvector - weights:
# Reproducibility: 0.68127
# Abundance: 0.00013
# Specificity: 0.31860
#
# Thank you for using MiST!

#Bait   Prey    Reproducibility Abundance       Specificity     MiST
TFEB-GFP-Infected       Q83EE6  0.9986  0.0005  1.0000  1.00000
TFEB-GFP-Infected       Q83AT0  0.9976  0.0001  1.0000  0.99931
TFEB-GFP-Infected       A9KE67  0.9961  0.0001  1.0000  0.99827
TFEB-GFP-Infected       Q83DY2  0.9956  0.0003  0.9996  0.99780
TFEB-GFP-Infected       Q83F99  0.9984  0.0001  0.9919  0.99723
TFEB-GFP-Infected       Q83EH5  0.9941  0.0001  1.0000  0.99690
TFEB-GFP-Infected       Q83C94  0.9921  0.0000  1.0000  0.99552
TFEB-GFP-Infected       Q83E30  0.9918  0.0000  1.0000  0.99533
TFEB-GFP-Infected       Q83CV1  0.9969  0.0001  0.9888  0.99526
TFEB-GFP-Infected       H7C7E2  0.9913  0.0000  1.0000  0.99499
TFEB-GFP-Infected       Q83AQ9  0.9913  0.0001  1.0000  0.99498
TFEB-GFP-Infected       Q83BN3  0.9911  0.0001  1.0000  0.99484
TFEB-GFP-Infected       Q83CY7  0.9910  0.0000  1.0000  0.99478
TFEB-GFP-Infected       Q83B70  0.9909  0.0000  1.0000  0.99475
TFEB-GFP-Infected       Q83AH1  0.9915  0.0000  0.9975  0.99435
TFEB-GFP-Infected       Q83CX2  0.9901  0.0004  1.0000  0.99414
TFEB-GFP-Infected       Q83DW9  0.9920  0.0000  0.9936  0.99341
TFEB-GFP-Infected       Q83CL4  0.9886  0.0002  1.0000  0.99318
TFEB-GFP-Infected       H7C7D5  0.9954  0.0001  0.9853  0.99312
TFEB-GFP-Infected       A9KD83  0.9876  0.0003  1.0000  0.99248
TFEB-GFP-Infected       Q83AH2  0.9903  0.0000  0.9933  0.99216
TFEB-GFP-Infected       Q83C03  0.9871  0.0001  0.9999  0.99209
TFEB-GFP-Infected       P42381  0.9925  0.0001  0.9881  0.99199
TFEB-GFP-Infected       Q83E36  0.9868  0.0000  1.0000  0.99190
TFEB-GFP-Infected       Q83DC8  0.9873  0.0000  0.9977  0.99151
TFEB-GFP-Infected       Q83AG0  0.9861  0.0006  1.0000  0.99144
TFEB-GFP-Infected       Q83CD5  0.9860  0.0002  0.9996  0.99127
TFEB-GFP-Infected       Q83BZ5  0.9887  0.0002  0.9924  0.99082
TFEB-GFP-Infected       Q83AS2  0.9851  0.0000  1.0000  0.99079
TFEB-GFP-Infected       Q83DY1  0.9847  0.0000  1.0000  0.99050
TFEB-GFP-Infected       Q83AW7  0.9847  0.0001  0.9996  0.99035
TFEB-GFP-Infected       Q83E94  0.9835  0.0001  1.0000  0.98965
TFEB-GFP-Infected       Q83AV7  0.9839  0.0000  0.9983  0.98944
```

3.jpg

Save the webpage as a .txt file (Just add .txt to the end of the name when saving the file)

Open MistOutput.txt in Excel (or any program of choice) to look at the results

You can just delete the Header, and have the first row be the following columns: Bait, Prey, Reproducibility, Abundance, Specificity, MiST"

The MiST website has additional resources for troubleshooting and analyzing your results

Attachments

No file attachments

*This procedure was originally created by **Aliya Haas***