Quick Guide to TCID50 Macro

Below is the screenshot of the TCID50 macro.

1. Click "**Open File**" button to the import the raw data file to the macro file.
2. If the text font color is orange, it means that this information can be changed by the user.
3. If the text font color is blue, it means that this information needs to be entered by the user.
4. The TCID50 value will be shown in the red box in red font.
5. The drop down list allows the user to choose which virus to analyze: Virus 1 or Virus 2. (See figure below)
6. If Virus 1 is selected, the top half of raw data box will be highlighted (see green box below) and Virus 1 will be shown next to the box.
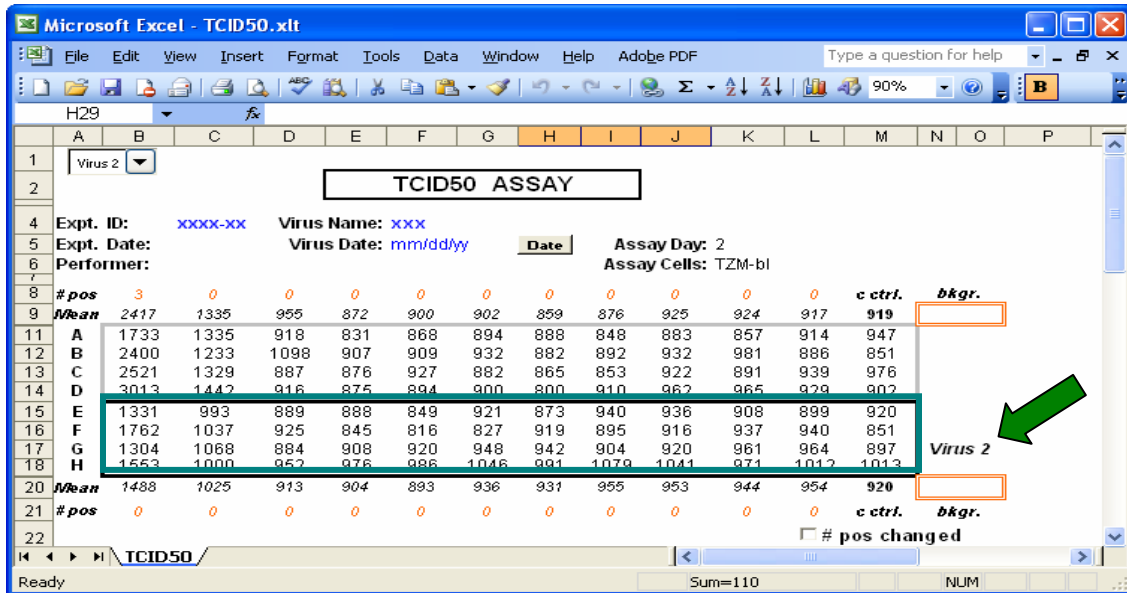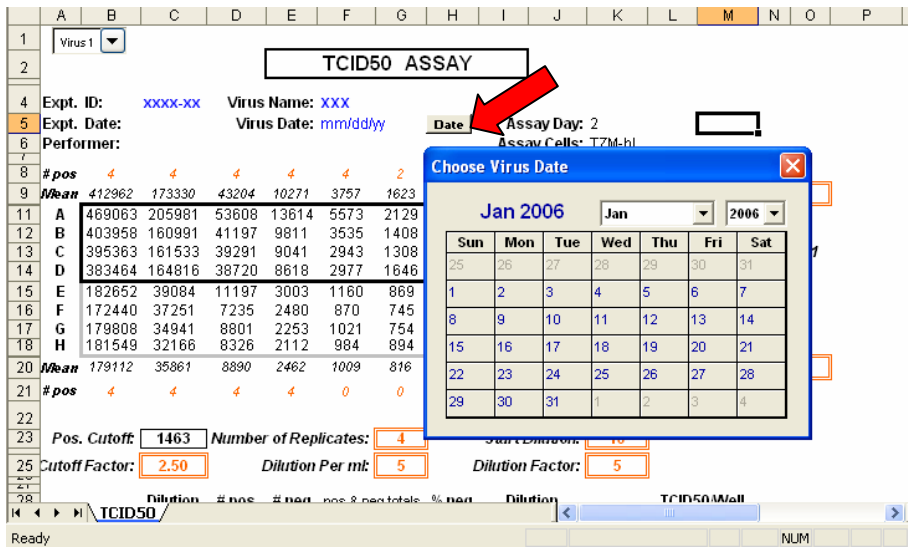

It will be the same procedure for Virus 2. If the Virus 2 is selected, the bottom half of the data box will be highlighted and Virus 2 will be shown next to the box.

7. Click **Date** button to select virus date.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	F
1	Virus 1 ▼															
2						TCID50 ASSAY										
4	Expt. ID:		XXXX-XX		Virus Name: XXX											
5	Expt. Date:				Virus Date: mm/dd/yy			Date		Assay Day: 2						
6	Performer:									Assay Cells:	TZM-bl	▼				

Drop down box to select assay cells.

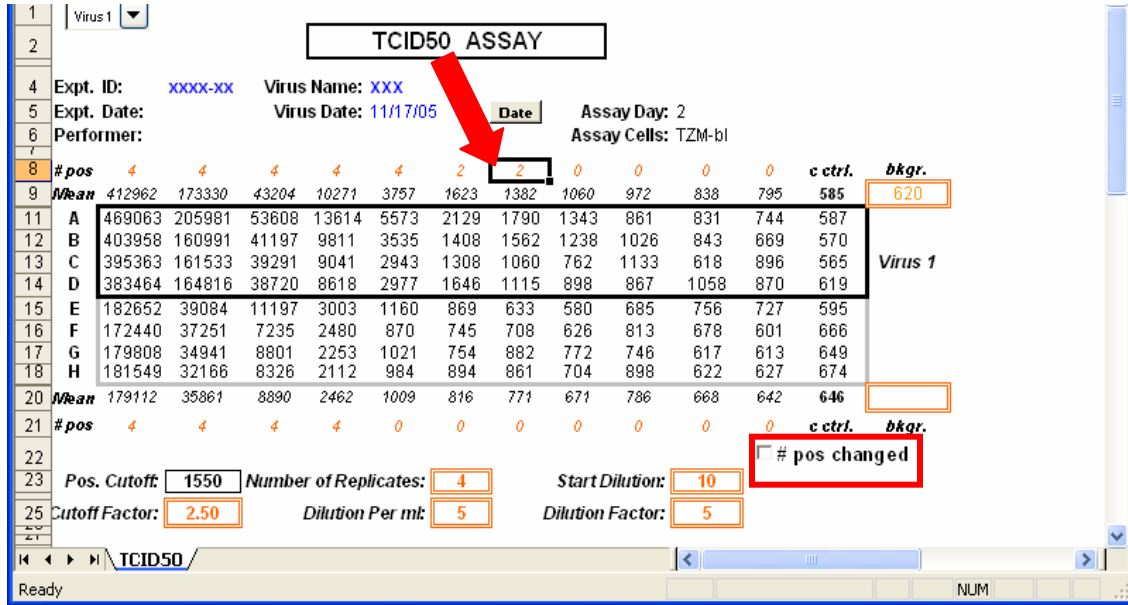| 8	#pos	4	4	4	4	4	2	2	0	0			*trl.*	*bkgr.*
9	Mean	412962	173330	43204	10271	3757	1623	1382	1060	972			585	
11	A	469063	205981	53608	13614	5573	2129	1790	1343	861		744	587	
12	B	403958	160991	41197	9811	3535	1408	1562	1238	1026	843	669	570	
13	C	395363	161533	39291	9041	2943	1308	1060	762	1133	618	896	565	Virus 1
14	D	383464	164816	38720	8618	2977	1646	1115	898	867	1058	870	619	

8. Cells where the user may need to input different information, such as the <u>cutoff factor, start dilution, dilution factor, etc</u> are indicated by the double line orange box. Please enter the values directly into these double line orange boxes.
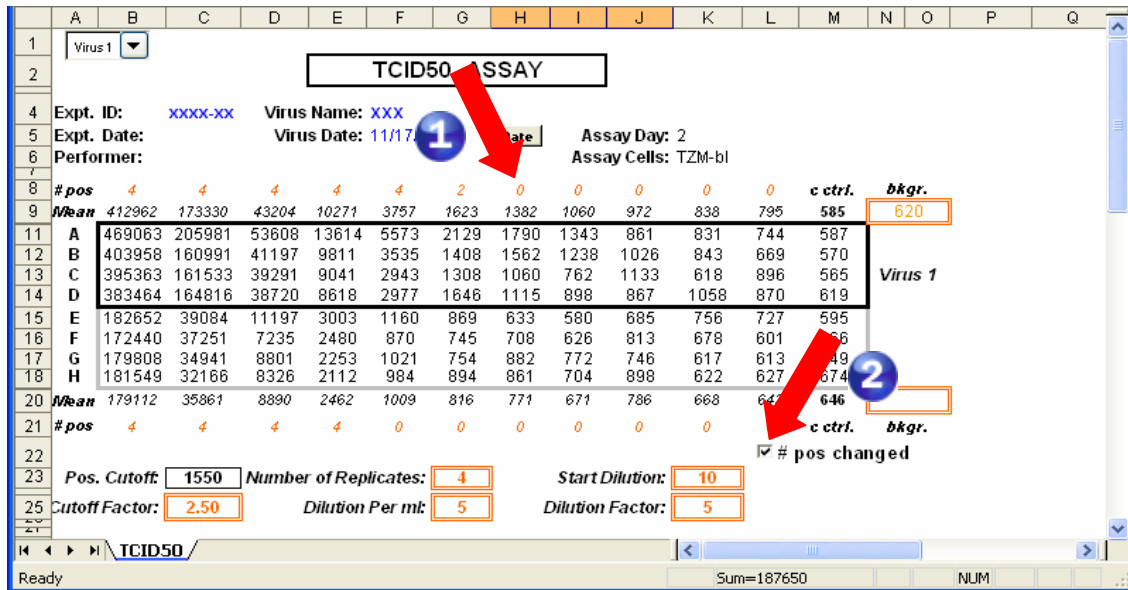
9.   For the background value, leave it blank to use the default value which is next to the double line box. Or enter the value that you want to use into the double line orange box. For example, see figure below. The background value for Virus 1 is 620. If no value is in the double line box, it will use the value next to it—585.

8	#pos	4	4	4	4	4	2	2	0	0	0	0	c ctrl.	bkgr.
9	Mean	412962	173330	43204	10271	3757	1623	1382	1060	972	838	795	585	620
11	A	469063	205981	53608	13614	5573	2129	1790	1343	861	831	744	587	
12	B	403958	160991	41197	9811	3535	1408	1562	1238	1026	843	669	570	
13	C	395363	161533	39291	9041	2943	1308	1060	762	1133	618	896	565	Virus 1
14	D	383464	164816	38720	8618	2977	1646	1115	898	867	1058	870	619	
15	E	182652	39084	11197	3003	1160	869	633	580	685	756	727	595	
16	F	172440	37251	7235	2480	870	745	708	626	813	678	601	666	
17	G	179808	34941	8801	2253	1021	754	882	772	746	617	613	649	
18	H	181549	32166	8326	2112	984	894	861	704	898	622	627	674	
20	Mean	179112	35861	8890	2462	1009	816	771	671	786	668	642	646	
21	#pos	4	4	4	4	0	0	0	0	0	0	0	c ctrl.	bkgr.

10. The user may wish to change the number of wells positive for infection. First change the **#pos** directly and then put a check mark in the check box # **pos changed** (indicated by red box in the figure below). For example, below we need to change the number of positive from 2 to 0 (indicated by the red arrow below).

(Before)

(After)

The Figure above shows the 2 steps to change the number of positive.

Step 1: Change 2 to 0.
Step 2: Put a check mark in the check box.

For questions or comments regarding the macro, please contact Peter Gao (juanfei.gao@duke.edu), Duke Central Immunology Laboratory.