



Maxpar Panel Designer v2.0

An Overview of New Features

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FLUIDIGM

1

New and improved features

2

Algorithm improvement

Ability to apply and then choose new metals that are within the Helios™ detection range but are not yet supported by Fluidigm

Ability to choose or combine reactivities (for example, mouse, human)

Ability to switch between instrument types (e.g. CyTOF® 2 to Helios)

Signal and tolerance values of over 800 Maxpar® antibodies.

Updated catalog

The Maxpar® Direct™ Immune Profiling Assay™ is available to import as a panel.

Maxpar MCP9 Antibody Labeling Kits (with cadmium isotopes) are available to select as metal tags.

Monoisotopic cisplatin (194, 195, 196, 198Pt) are available to select as metal tags.

Maxpar human immuno-oncology antibodies are available individually to select and as 1 of 6 Maxpar Direct Expansion Panel kits to import.

Updated user interface

Autosave no longer obscures the Optimize, Export, Add, and Panel buttons when the browser window width is reduced.

Compatibility with Mac OS X Yosemite 10.10 or later

The last edit is time-stamped to exported panel CSV file.

Ability to add and delete targets in My Catalogs

Updated user interface

My Panel view enables panels to be sorted by date created or modified and ordered alphabetical by panel name.








A heat map is provided in the Panel Table and Panel Wheel views to indicate the amount of signal overlap .

Colors are assigned to each Maxpar suspension panel kit for easier identification in the panel table.

Panel Designer v2.0 overview

7

Updated user interface

-  My Panels
-  Panel Table
-  Panel Wheel
-  Groups
-  My Catalogs
-  Manage Metals **new**
-  Logout **new**

8

My Panels view



Creates New Panel

My Panels

DUPLICATE DELETE IMPORT EXPORT QUOTE REQUEST

PANEL	# OF MARKERS	INSTRUMENT	REACTIVITY	LAST MODIFIED	CREATED
<input type="checkbox"/> 20200702_TestPCPanel	28	Helios	Human	8:11 pm 7/21/2020	10:01 pm 7/2/2020
<input type="checkbox"/> 20200702_TestPCPanel2Startingwithquickadd	17	Helios	Human	10:03 pm 7/2/2020	10:02 pm 7/2/2020
<input type="checkbox"/> 20200702_VM_Test	21	Helios	Human	10:10 pm 7/2/2020	6:59 pm 7/2/2020
<input type="checkbox"/> 20200702_VM_Test_importFluidigmPanel	19	Helios	Human	8:07 pm 7/2/2020	7:35 pm 7/2/2020
<input type="checkbox"/> 20200702_VM_Test_importFluidigmPanel.Optimize	17	Helios	Human	8:15 pm 7/2/2020	8:08 pm 7/2/2020

9

Create a new panel



1 Click to initiate a panel.

My Panels

DUPLICATE DELETE IMPORT EXPORT QUOTE REQUEST

Create a New Panel

2 Give panel a unique name.

3 Select 1 or more target species: Dictates antibody clones available for the panel.

4 Select instrument to dictate channel range and percent overlap matrix as the abundance sensitivities differ for each instrument.

Channel Range: 75 to 209

5 Click to create the panel.

10

Request a quote



Quote Request

Kits

Qty	Size	Cat#	Name	Target	Clone	Tag	Order Individually
1	25 test	201308	His_Cytokine_1_PanelKit				<input type="checkbox"/>

Individual Targets

Qty	Size	Cat#	Name/Target	Clone	Tag	Pre-Conjugate	Labeling Kit	Custom Service Validated	Custom Service Non-Validated
1	100 test	3141019B	CD3	UCHT1	1419F	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	100 test	3999999-4	CD4	SK3	160Gd	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1	100 test	3144001B	CD8a	99A-T8	1408d	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	100 test	3145008B	CD16	3G8	1478d	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	100 test	3999999-4	CD33	VMS3	158Gd	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1	100 test	3142001B	CD19	HB19	1428d	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- The quote request interface is very similar to that of version 1.
- A new feature allows antibodies in a panel kit to be ordered individually.
- Once completed, email the request to orders@fluidigm.com for a quote.

11

Panel Table

	My Panels
	Panel Table
	Panel Wheel
	Groups
	My Catalogs
	Manage Metals
	Logout

12

New Panel Table features



Test 1 REACTIVITY: HUMAN INSTRUMENT: Helios TARGETS: 0 CHANNEL RANGE: 75-209

QUICK ADD ADVANCED SEARCH

Target: CD3 Clone: - no clone - Tag: (any) Custom: Signal: 80 Tolerance: 16 ADD

Target	Clone	Tag	Custom	Signal	Tolerance

CHANNEL	89	106	110	111	112
	0.00	0.00	0.00	0.00	0.00

13

Advanced Search option



Add Target

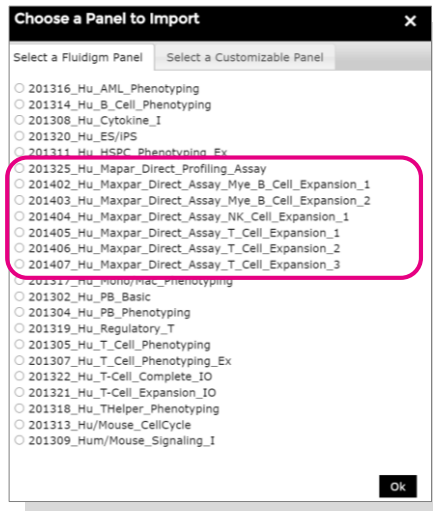
Product	Species	Category	Target	Size	Clone	Tag	Catalog Number
Anti-Human ALDH (44/ALDH)-147Sm	Human	Enzyme	ALDH	100 Test	44/ALDH	147Sm	3147015B
Anti-Human a-Fetoprotein/AFP (189506)-150Nd	Human	Cell Cycle and Proliferation	alpha-Fetoprotein/AFP	100 Test	189506	150Nd	3150025B
Anti-Human Androgen receptor (G122-434)-154Sm	Human	Signaling and Transcription	Androgen Receptor	100 Test	G122-434	154Sm	3154018B

14

Import Panel additions



Maxpar Direct Immune Profiling Assay and Maxpar Direct Expansion Panel Kits have been added.



15

Add multiple panels



<input type="checkbox"/>	CD45RA	HI100	169Tm (FDM)	<input type="checkbox"/>	529	106
<input type="checkbox"/>	CD11c	Bu15	159Tb (FDM)	<input type="checkbox"/>	676	135
<input type="checkbox"/>	CD8a	RPA-T8	146Nd (FDM)	<input type="checkbox"/>	683	137
<input type="checkbox"/>	CD66a/CEACA	CD66a-B1.1	149Sm (FDM)	<input type="checkbox"/>	903	181
<input type="checkbox"/>	CD20	2H7	147Sm (FDM)	<input type="checkbox"/>	1039	208
<input type="checkbox"/>	CD61	VI-PL2	165Ho (FDM)	<input type="checkbox"/>	1041	208
<input type="checkbox"/>	CD45	HI30	154Sm (FDM)	<input type="checkbox"/>	1153	231
<input type="checkbox"/>	IL-4	MP4-25D2	144Nd (FDM)	<input type="checkbox"/>	10	3
<input type="checkbox"/>	IL-6	MQ2-13A5	156Gd (FDM)	<input type="checkbox"/>	30	3
<input type="checkbox"/>	IL-17A	N49-653	164Dy (FDM)	<input type="checkbox"/>	149	3
<input type="checkbox"/>	IL-17F	SHLR17	166Er (FDM)	<input type="checkbox"/>	333	8

16

Signal overlap table



CHANNEL	89	106	110	111	112	113	114	115	116	139	140	141	142	143	144	145
141Pr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.58	0.00	0.00	0.00
160Gd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
172Yb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
167Er	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
142Nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.56	6.40	0.77	0.00
174Yb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
148Nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.82	6.78
170Er	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
148Nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.17	1.30	2.17
151Eu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
169Tm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



17

Optimize Metals channel selection



Optimize Metals








Select channels to include in Optimize solution:

<input checked="" type="checkbox"/> 89Y	<input checked="" type="checkbox"/> 101Pd	<input checked="" type="checkbox"/> 106Cd
<input checked="" type="checkbox"/> 110Cd	<input checked="" type="checkbox"/> 111Cd	<input checked="" type="checkbox"/> 112Cd
<input checked="" type="checkbox"/> 113Cd	<input checked="" type="checkbox"/> 114Cd	<input checked="" type="checkbox"/> 115Ln
<input checked="" type="checkbox"/> 116Cd	<input checked="" type="checkbox"/> 139La	<input checked="" type="checkbox"/> 141Pr
<input checked="" type="checkbox"/> 142Nd	<input checked="" type="checkbox"/> 143Nd	<input checked="" type="checkbox"/> 144Nd
<input checked="" type="checkbox"/> 145Nd	<input checked="" type="checkbox"/> 146Nd	<input checked="" type="checkbox"/> 147Sm
<input checked="" type="checkbox"/> 148Nd	<input checked="" type="checkbox"/> 149Sm	<input type="checkbox"/> 150Nd
<input checked="" type="checkbox"/> 151Eu	<input checked="" type="checkbox"/> 152Sm	<input type="checkbox"/> 153Eu
<input checked="" type="checkbox"/> 154Sm	<input checked="" type="checkbox"/> 155Gd	<input checked="" type="checkbox"/> 156Gd
<input checked="" type="checkbox"/> 158Gd	<input checked="" type="checkbox"/> 159Tb	<input checked="" type="checkbox"/> 160Gd
<input checked="" type="checkbox"/> 161Dy	<input checked="" type="checkbox"/> 162Dy	<input checked="" type="checkbox"/> 163Dy
<input checked="" type="checkbox"/> 164Dy	<input checked="" type="checkbox"/> 165Ho	<input checked="" type="checkbox"/> 166Er
<input checked="" type="checkbox"/> 167Er	<input checked="" type="checkbox"/> 168Er	<input checked="" type="checkbox"/> 169Tm
<input checked="" type="checkbox"/> 170Er	<input checked="" type="checkbox"/> 171Yb	<input checked="" type="checkbox"/> 172Yb
<input checked="" type="checkbox"/> 173Yb	<input checked="" type="checkbox"/> 174Yb	<input type="checkbox"/> 175Lu
<input checked="" type="checkbox"/> 176Yb	<input checked="" type="checkbox"/> 194Pt	<input checked="" type="checkbox"/> 198Pt
<input checked="" type="checkbox"/> 209Bi		

When you click the Optimize Metals button, a window appears for selection of channels to include.

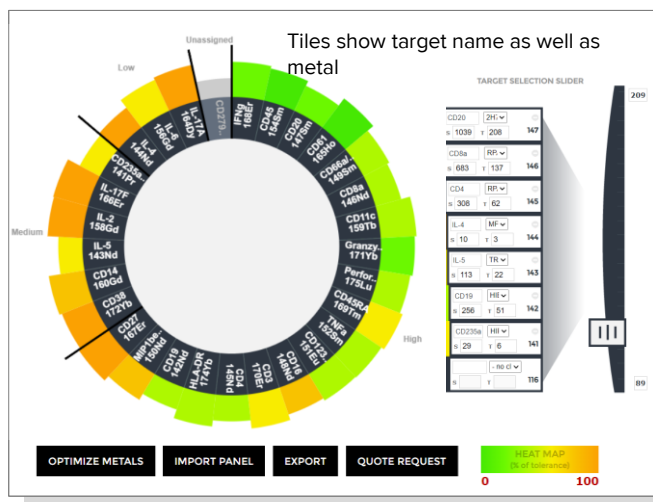
18

Panel Wheel

-  My Panels
-  Panel Table
-  Panel Wheel
-  Groups
-  My Catalogs
-  Manage Metals
-  Logout

19








New features in the Panel Wheel



The functionality available in the Target Selection slider is similar to that in the Panel Table.

20

Manage Metals

-  My Panels
-  Panel Table
-  Panel Wheel
-  Groups
-  My Catalogs
-  **Manage Metals**
-  Logout

21

Manage Metals: Add Metal



Manage Metals		
<input type="checkbox"/>	Metal Name	Channel
No data available in table		
<input type="checkbox"/>	Metal Name	Channel

Add Metal

Metal Name

Optimize Available

Add Metal

Metal Name

Optimize Available

22

Manage Metals: Manage Impurity



Manage Metals ➕ Add Metal 🔍 Manage Impurity 🟢 Activate 🟡 Deactivate ➕ Optimize Available ➖ Optimize Unavailable 🗑️ Delete

<input type="checkbox"/>	Metal Name	Channel	Status	Optimize
<input type="checkbox"/>	106 Cd	106	Active	Available
<input type="checkbox"/>	110 Cd	110	Active	Available
<input type="checkbox"/>	111 Cd	111	Active	Available
<input type="checkbox"/>	112 Cd	112	Active	Available
<input type="checkbox"/>	113 Cd	113	Active	Available
<input type="checkbox"/>	114 Cd	114	Active	Available
<input type="checkbox"/>	116 Cd	116	Active	Available
<input type="checkbox"/>	Metal Name	Channel	Status	Optimize

23

Manage Impurity



Channel	106	108	110	111	112	113	114	115	116	118
106		2.1	0.2	0	0.3	0.9	0.2	0	0	0
108	0		0	0	0	0	0	0	0	0
110	0	0		1.4	1.3	0.5	0.9	0	0.2	0
111	0	0	0.3		2.0	0.6	0.9	0	0.1	0
112	0	0	0	0.9		0.9	0	0	0	0
113	0	0	0.1	0.1	1.5		2.3	0	0.2	0
114	0	0	0.1	0.1	0.3	0.3		0	0.3	0
115	0	0	0	0	0	0	0		0	0
116	0	0	0.3	0.3	0.7	0.4	1.9	0		0
118	0	0	0	0	0	0	0	0	0	

24

Summary

Panel Designer v2.0 offers new features and improvements that afford greater ease and functionality when designing mass cytometry panels.

The addition of the Maxpar Direct Immune Profiling Assay and the Maxpar Direct Expansion Panels to Panel Designer v2.0 makes customization of the Maxpar Direct assay even more user-friendly.

The new Manage Metals function allows for panel expansion and design using isotopes beyond those offered by Fluidigm.

Fluidigm Field Applications Specialists are always available to assist with panel design.



25

25

Thank you.

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26