AIM Core Newsletter

OCTOBER 2020

IN A NUTSHELL (SCROLL DOWN TO LEARN MORE)

- The CX7 LZR with robotic arm is almost here
- There are lots of new learning resources available on iLabs to watch and download
- There's a online seminar for High Content Analysis (you need to register)
- There is a growing list of Reagents, Chemicals, Antibodies available to you

THE CX7 LZR (LASER BASED HCA HIGH CONTENT ANALYZER) IS SCHEDULED FOR INSTALLATION OCT 13, 2020

Our newest High Content analyzer is almost here!
To access previous trainings, just click on the links under the CX7 descriptions in iLabs. Since most training topics can be used for either the LED based or Laser based platforms, be sure to check under both schedules for videos, SOPS, and various other training content.

There are A LOT of files located in iLabs to help you make the most of your High Content Analysis.
For example:
HCS 101 course materials
Tutorials 1-11
New User Training for LED
New User Training for LZR
Bioapplications Guides
Reagents Selection Guide
Spectra Viewer

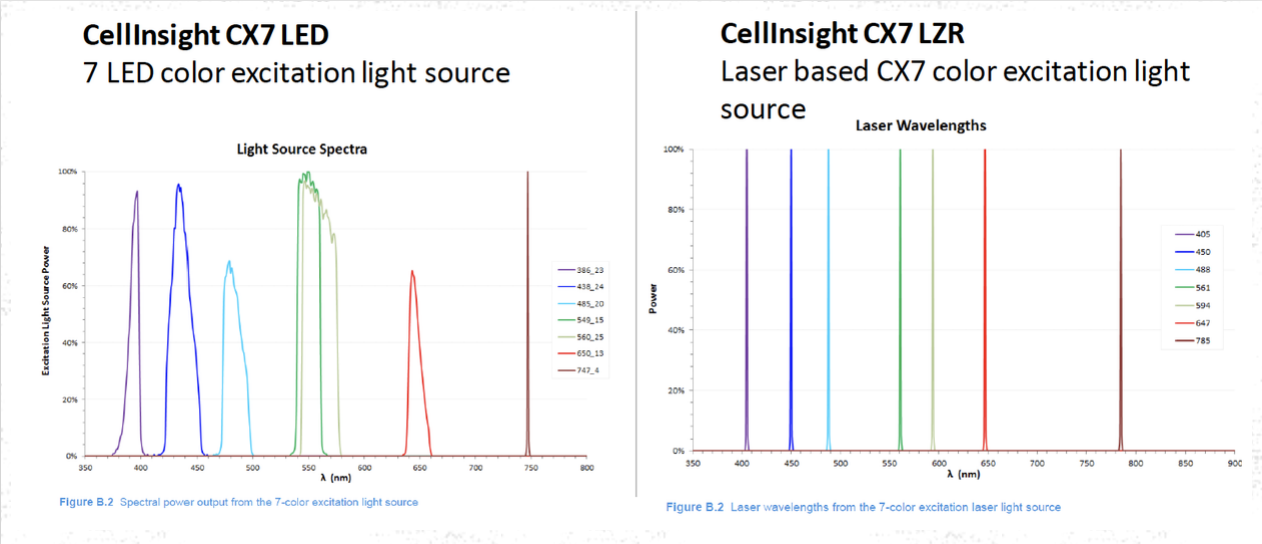


Figure B.2 Spectral power output from the 7-color excitation light source

Figure B.2 Laser wavelengths from the 7-color excitation laser light source

VIRTUAL HIGH CONTENT SCREENING USER GROUP MEETING (VUGMS)

REGISTER HERE! and select one or all topics of interest. Early registration is encouraged.

1st Talk: M 10/12 @ 11AM
Mark Collins CTO- Helomics Corp
Driving drug-efficient, effective drug Discovery using machine learning models of tumor drug response

When and Where is it and What to Expect
- It is virtual and will be held as webinars
- There will be four talks spanning 4 days (one talk per day) starting October 12, 2020 and ending October, 15, 2020. It will be at 10 AM PDT / 1 PM EDT each day
- Talks by scientists who have been power users of our Cellinsight HCA platforms and will focus both on 2D and 3D cell based assays.
- Each talk will be virtual 45 minute webinar followed by 10 -15 minutes of Q&A

10/13 @11AM JAMES EVANS, PHENOVISTA BIOSCIENCES

Delivering bespoke high-content assay services to the drug discovery community

10/14 @ 11AM NICHOLAS RADIO, THERMO FISHER SCIENTIFIC

Investigating 3-Dimensional life sciences biologies using high-content technology

10/15 @ 11AM MICHAEL JOHNSON, VISIKOL INC

Multiplex imaging and analysis of slides using high-content imaging

GUAVA EASYCYTE 11HT FLOW CYTOMETER LEARNING RESOURCES ARE NOW AVAILABLE.

Video tutorials on how to run and analyze your samples on the .
There are more resources located on iLabs under the Guava description but here are some helpful links.

Guava Training 1 & 2 Set up & Acquisition (video)
Guava Training 3 Compensation & Analysis (video)
Step By Step Guide (pdf)
Fluorochromes Guide (jpg)

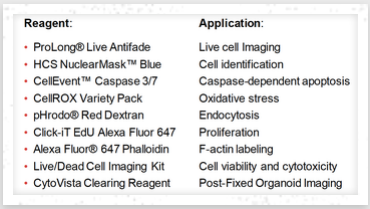
With 11 channels (9 color + FSC +SSC), 2 lasers, these are some of the fluorochromes you can run on our machine (in tubes or 96well U bottom plates)

Detection channel (peak/range):

Blue (450/45 nm)	Green (525/30 nm) (512/18 nm)*	Yellow (583/26 nm) (575/25 nm)*	Red (695/50 nm)	NIR (785/70)
AlexaFluor® 405	Alexa Fluor® 430	BV 570®	BV 711®	BV 785®
BV 421®	BV 510®	Cascade Yellow	QD 705	eFluor 750
Cascade Blue	Cascade Yellow	Pacific Orange	7-AAD	QD 800
DAPI	Pacific Green	QD 565	PE-AlexaFluor® 647	PE-AlexaFluor® 750
DyLight™ 405	Pacific Orange	QD 585	PE-AlexaFluor® 700	PE-Cy7
eFluor 450	QD 525	DsRED	PE-Cy5.5	
Hoescht 33258	QD 545	Ethidium bromide	PerCP	
LIVE/DEAD Violet	Zombie Aqua	JC-1 (aggregate)	PerCP-Cy5.5	
Marina Blue	Acridine Orange (DNA)	R-PE		
Pacific Blue	Alexa Fluor® 488	RFP		
	BODIPY-FL			
	Calcein			
	CFSE			
	CF™ 488			
	Cy2			
	DyLight™ 488			
	FAM			
	FITC			
	GFP/eGFP			
	JC-1 (monomer)			
	Oregon Green			
	Rhodamine 110 & 123			
	SYBR Gold			
	SYBR Green			
	SYTOX Green			
	Thiazole Orange			
	TO-PRO-1			
	YFP/eYFP			
	YO-PRO-1			
	YOYO-1			

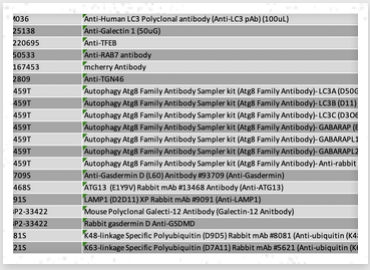
Excitation:
Violet laser (405 nm)
Blue laser (488 nm)

CLICK HERE FOR A GROWING LIST OF REAGENTS, ANTIBODIES, AND CHEMICALS AVAILABLE TO AIM CORE USERS (MICE, PLASMIDS, AND CELL LINES TO BE ADDED SOON)



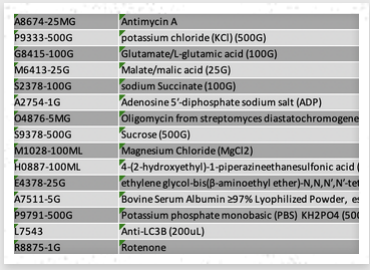
Reagent:	Application:
ProLong® Live Antifade	Live cell Imaging
HCS NuclearMask™ Blue	Cell identification
CellEvent™ Caspase 3/7	Caspase-dependent apoptosis
CellROX Variety Pack	Oxidative stress
pHrodo® Red Dextran	Endocytosis
Click-iT EdU Alexa Fluor 647	Proliferation
Alexa Fluor® 647 Phalloidin	F-actin labeling
Live/Dead Cell Imaging Kit	Cell viability and cytotoxicity
CytoVista Clearing Reagent	Post-Fixed Organoid Imaging

SOME STAINING REAGENTS



4036	Anti-Human LC3 Polyclonal antibody (Anti-LC3 pAb) (100uL)
25138	Anti-Galectin 1 (50uG)
220695	Anti-TFEB
50533	Anti-RAB7 antibody
167453	mcherry Antibody
2809	Anti-TGN46
459T	Autophagy Atg8 Family Antibody Sampler kit (Atg8 Family Antibody)- LC3A (D50
459T	Autophagy Atg8 Family Antibody Sampler kit (Atg8 Family Antibody)- LC3B (D11)
459T	Autophagy Atg8 Family Antibody Sampler kit (Atg8 Family Antibody)- LC3C (D3O
459T	Autophagy Atg8 Family Antibody Sampler kit (Atg8 Family Antibody)- GABARAP (
459T	Autophagy Atg8 Family Antibody Sampler kit (Atg8 Family Antibody)- GABARAPL1
459T	Autophagy Atg8 Family Antibody Sampler kit (Atg8 Family Antibody)- GABARAPL2
459T	Autophagy Atg8 Family Antibody Sampler kit (Atg8 Family Antibody)- Anti-rabbit
7095	Anti-Gasdermin D (L60) Anitbody #93709 (Anti-Gasdermin)
4685	ATG13 (E1Y9V) Rabbit mAb #13468 Antibody (Anti-ATG13)
915	LAMP1 (D2D11) XP Rabbit mAb #9091 (Anti-LAMP1)
P2-33422	Mouse Polyclonal Galecti-12 Antibody (Galectin-12 Anitbody)
P2-33422	Rabbit gasdermin D Anti-GSDMD
815	K48-linkage Specific Polyubiquitin (D9D5) Rabbit mAb #8081 (Anti-ubiquitin (K4
215	K63-linkage Specific Polyubiquitin (D7A11) Rabbit mAb #5621 (Anti-ubiquitin (K

SOME ANTIBODIES



A8674-25MG	Antimycin A
P9333-500G	potassium chloride (KCl) (500G)
G8415-100G	Glutamate/L-glutamic acid (100G)
M6413-25G	Malate/malic acid (25G)
S2378-100G	Sodium Succinate (100G)
A2754-1G	Adenosine 5'-diphosphate sodium salt (ADP)
O4876-5MG	Oligomycin from streptomyces diastatochromogene
S9378-500G	Sucrose (500G)
M1028-100ML	Magnesium Chloride (MgCl2)
H0887-100ML	4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid (
E4378-25G	ethylene glycol-bis(β-aminoethyl ether)-N,N,N',N'-te
A7511-5G	Bovine Serum Albumin ≥97% Lyophilized Powder, e
P9791-500G	Potassium phosphate monobasic (PBS) KH2PO4 (50
L7543	Anti-LC3B (200uL)
R8875-1G	Rotenone

SOME CHEMICALS

COMMUNITY WORK

Hey Everyone,

I'm designing a 1 Credit (virtual) Course for the purpose of bringing more great SCIENCE to the larger community. PIs, Postdocs, Grad Students, Technicians if you are willing to share your expertise to a broad (non-scientific) audience and speak in general terms about your work and its impact on the larger community, as either a highlighted speaker or part of a panel, **please let me know**.

Wouldn't it be a great chance to provide a public forum (low key/low pressure) to take your expertise and share it with the larger community?
Why does intermittent fasting work to lose weight?
Does the Flu vaccine really help and why/why not?
Why did my family member get cancer when they always ate healthy?
Should I give my kids the HPV vaccine if I don't condone sexual activity at this age?
What causes premature labor?

There are often so many commons misconceptions that the general public has about basic principles we take for granted. Maybe you know of an ALUMNUS or have a colleague doing some really interesting current work. . .send me all suggestions/topics/speakers of interest!

AIM CORE

Don't forget to acknowledge the AIM Center (Autophagy, Inflammation and Metabolism) and the CoBRE grant in publications

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