

1. BPAE cells, 3 color fluorescence, **Lumencor SOLA Light Engine**. Dr. Iain Johnson, PhD, Director of Technical support, Lumencor.
2. 60x CrestOptics CELESTA Video
3. Fruit Fly, Bob Greenlee, Manufacturing Engineer, Lumencor, Inc. **Lumencor MIRA Light Engine**
4. Late Stage Mouse Embryo **Microscope**: Nikon Ti2 **Objective**: Nikon 4x Plan Apo Lambda, NA 0.2 **SD confocal module**: Crest X-Light V3 Confocal Laser bank: **Lumencor CELESTA Light Engine**, Camera: Teledyne IRIS15 Stitched spinning disc confocal image
Data courtesy of Marie Andersson, BergmanLabora AB
5. 16-plex biomarker profiling of Non-small Cell Lung Cancer tissue (CD3, CD4, CD45RO, CD68, DC163, CD8, CD11c, CD20, PD1, PDL1, Cytokeratin, LAGF3, FoxP3, Ki67, GranzymeB and MCHII). Nuclear Counterstain shown in blue. Abdul Mohammed, Senior Scientist, Ultivue. **Lumencor Spectra X Light Engine**.
- 5 5plex mouse embryonic fibroblasts expressing MS2-tagged beta-actin mRNA. Red Halo-JF549-NLS-MCP, Green Atto594 POLR2A mRNA FISH, Blue DAPI, Cyan Cy5 beta-actin-MS2 mRNA FISH, Magenta Alexa Fluor 488-anti-DDX6 immunofluorescence. Cy5, 637x 685m, Atto594, 575x 640m, JF549, 555x 598m, AF488, 475x 515m, DAPI, 395x 447m. Microscope details at <http://confocal.jhu.edu/current-equipment/fishscope>. Specimen preparation by **Lauren Blake**, Prof. Bin Wu's lab (JHU Biophysics). Imaging by **George McNamara**, Ross Fluorescence Imaging Center. **Lumencor SPECTRA III Light Engine**
6. 6-plex biomarker profiling of Oral Cavity Tumor tissue (CD3, CD68, CD11c, CD20, Ki67, and Cytokeritin). Nuclear Counterstain shown in blue. Abdul Mohammed, Senior Scientist, Ultivue. **Lumencor Spectra X Light Engine**.
6. In this E12-14 mouse (wt sample), neurofilaments are stained in red to assess neuronal outgrowth. The mouse was cleared with the ScaleS reagent. Courtesy of Yves Lutz, Centre d'imagerie, IGBMC, France. **Lumencor, SOLA SM II 365 Light Engine**
7. 50 micro thick slice cut from a brain organoid structure derived from induced pluripotent stem cells: **Microscope**: Nikon Ti2 **Objective**: Nikon 60X oil Plan Apo Lambda, NA 1.4 **SD confocal module**: Crest X-Light V3 Confocal Laser bank: Lumencor CELESTA Light Engine. Data courtesy of CrestOptics
8. Combination of DIC and fluorescence on a Nikon Ti2 of algae and cyanobacteria. The Oscillatoria (dark red strands) and microcystis (light red stained clusters) were excited with a long pass trite filters while the green algae were excited with a long pass fitc filters. **Lumencor SOLA Light Engine**. Robert M. Zucker, PhD National Health and Environmental Effects Research Laboratory, US Environmental Protection Agency

9. Fluorescence image of microcystis cyanobacteria (red) and algae (green). The image was acquired by Nikon Ti2 Microscope, **Lumencor SOLA Light Engine** Robert M. Zucker, PhD National Health and Environmental Effects Research Laboratory, US Environmental Protection Agency

10. ARPE-19 cell treated with 75nm silver nanoparticles that are coated with PVP. The image was acquired by Nikon Ti2 Microscope, **Lumencor SOLA Light Engine**. Robert M. Zucker, PhD National Health and Environmental Effects Research Laboratory, US Environmental Protection Agency

11. Image of a mosquito larva's 'moustache', the fine brush hairs on the side of their mouth. Z stack deconvolved and rendered in Huygens. Larva fixed in PFA and mounted in glycerol. Image size 332 x 332 x 216um. The image was acquired with a Leica DMI8 equipped with a 40x oil 1.3NA, GFP filter cube, Hamamatsu Flash4 v2 camera and a **Lumencor SOLA SE Light Engine**. Glyn Nelson, Newcastle University, Newcastle upon Tyne, UK.

12. Late blastula stage of the sea urchin *Arbacia punctulata* sea urchin stained for microtubules (red), actin filaments (green), and DNA (blue). Credit to the 2019 Physiology course, biochemistry bootcamp section at the Marine Biological Laboratory in Woods Hole, MA. Johan Allen, **Lumencor CELESTA Light Engine**

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14. Brain Organoid 50 micro thick slice cut from a brain organoid structure derived from induced pluripotent stem cells **Microscope:** Nikon Ti2 Objective: Nikon 60X oil Plan Apo Lambda, NA 1.4 **SD confocal module:** Crest X-Light V3 Confocal Laser bank: **Lumencor CELESTA Light Engine** Data courtesy of CrestOptics

15. Brain Organoid 50 micro thick slice cut from a brain organoid structure derived from induced pluripotent stem cells **Microscope:** Nikon Ti2 Objective: Nikon 60X oil Plan Apo Lambda, NA 1.4 **SD confocal module:** Crest X-Light V3 Confocal Laser bank: **Lumencor CELESTA Light Engine** Data courtesy of CrestOptics



