Adipocyte data set reference material
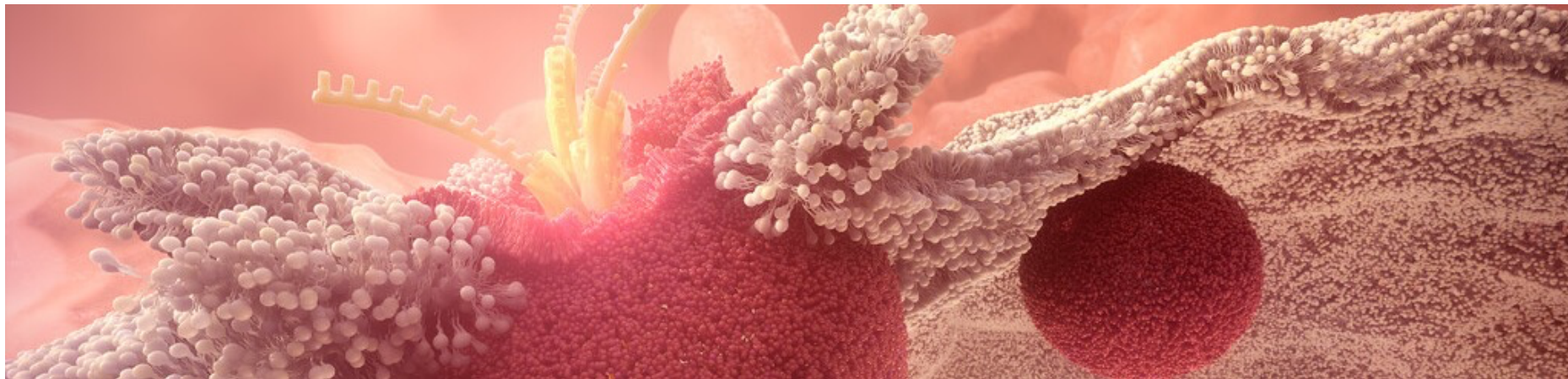
Data set file-name reference

File name: AssayPlate_Greiner_#655090_B02_T0001F001L01A01Z01C01

|	
B02	well (row B, column 02)
T0001	timepoint (irrelevant for this dataset)
F001	field of view = site
L01	timeline (irrelevant for this datset)
A01	action list number (3 fluorescent + 1 brightfield action)
Z01	3D z-number (slice number or vertical position)
C01	imaging channel (1 nuclear, 2 lipids, 3 cytoplasm, 4 brightfield)

Example images

The following slides show sample images from 20, 40 and 60x imaging.

Contrast settings are the same for all channels and magnifications.

Each slide shows, in clockwise order: nuclei, lipids, brightfield, cytoplasm
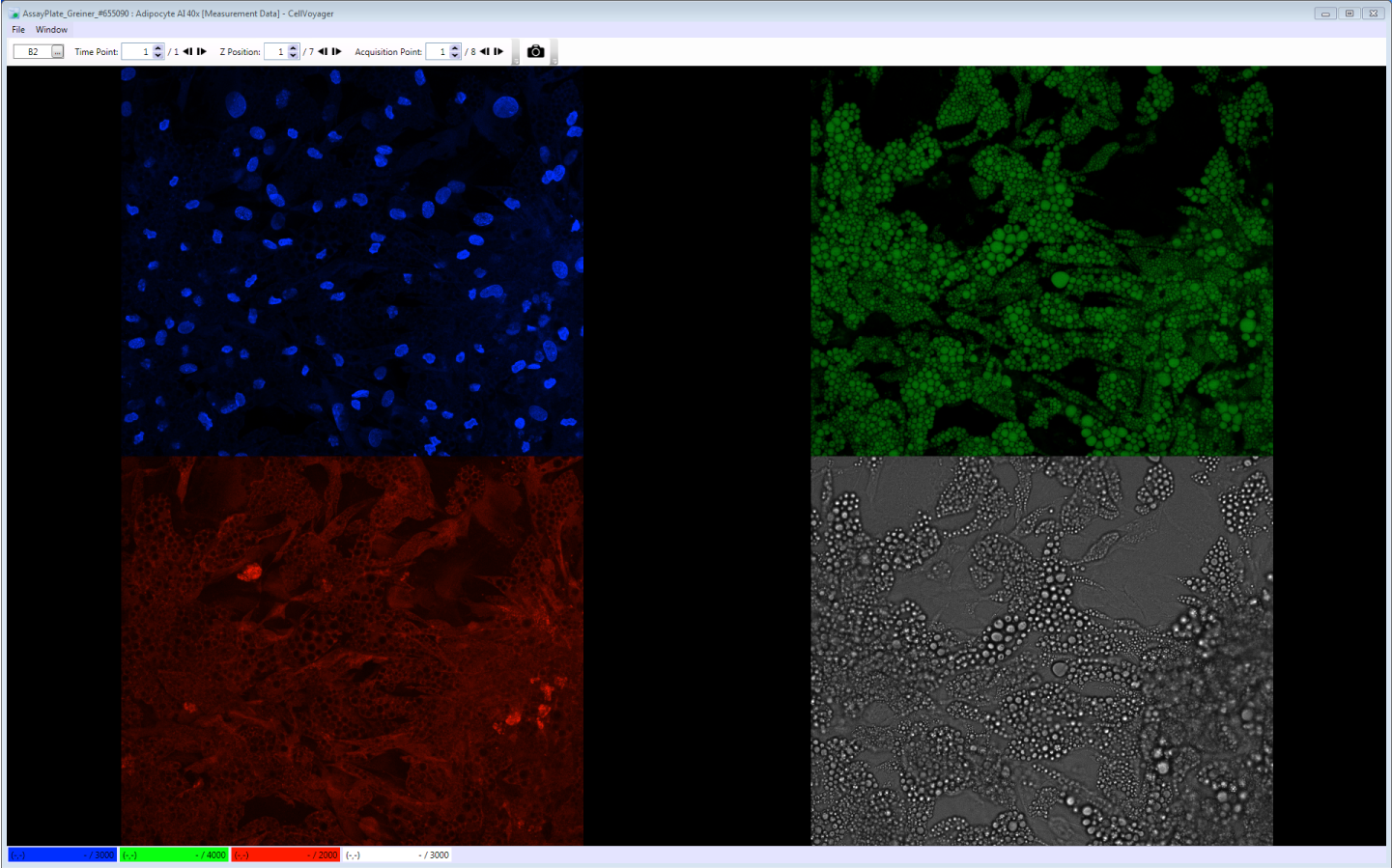
For this dataset the same 9 wells were imaged at all magnifications, but different sites (fields of view, FOVs) and different numbers of sites were imaged at each magnification. There is some site overlap between magnifications.
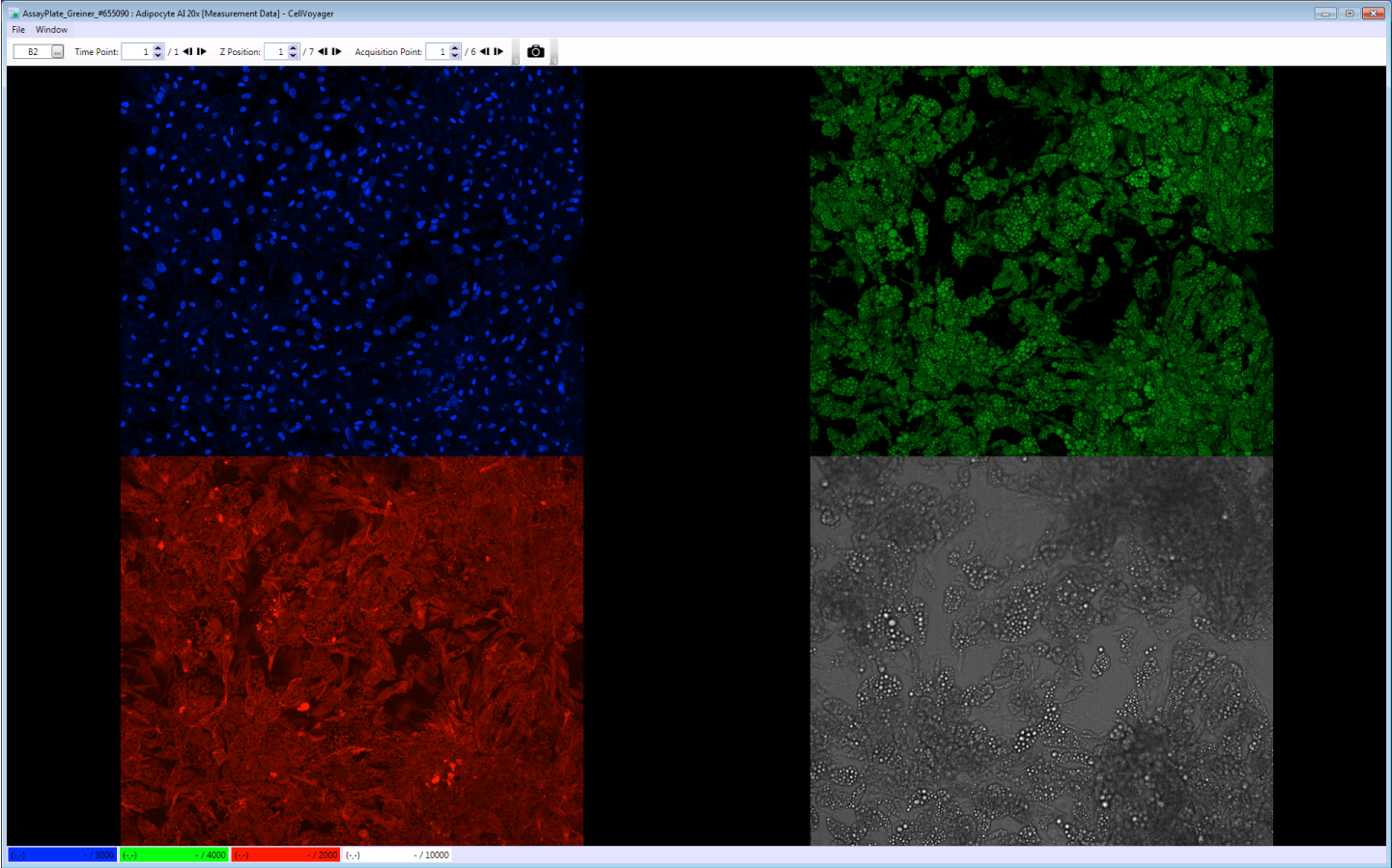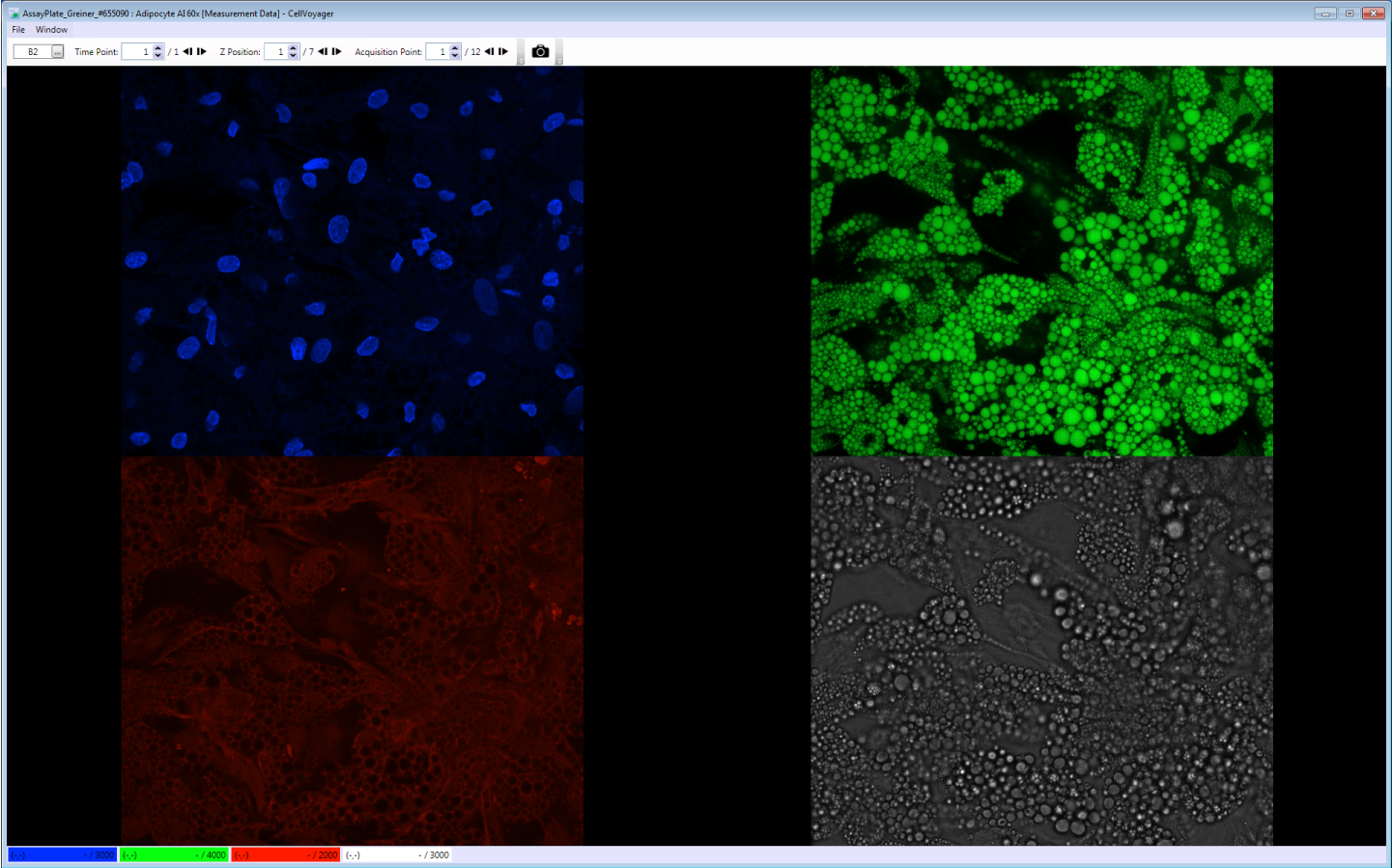
20x plane 1, clockwise: nuclei, lipids, brightfield, cytoplasm

40x plane 1, clockwise: nuclei, lipids, brightfield, cytoplasm
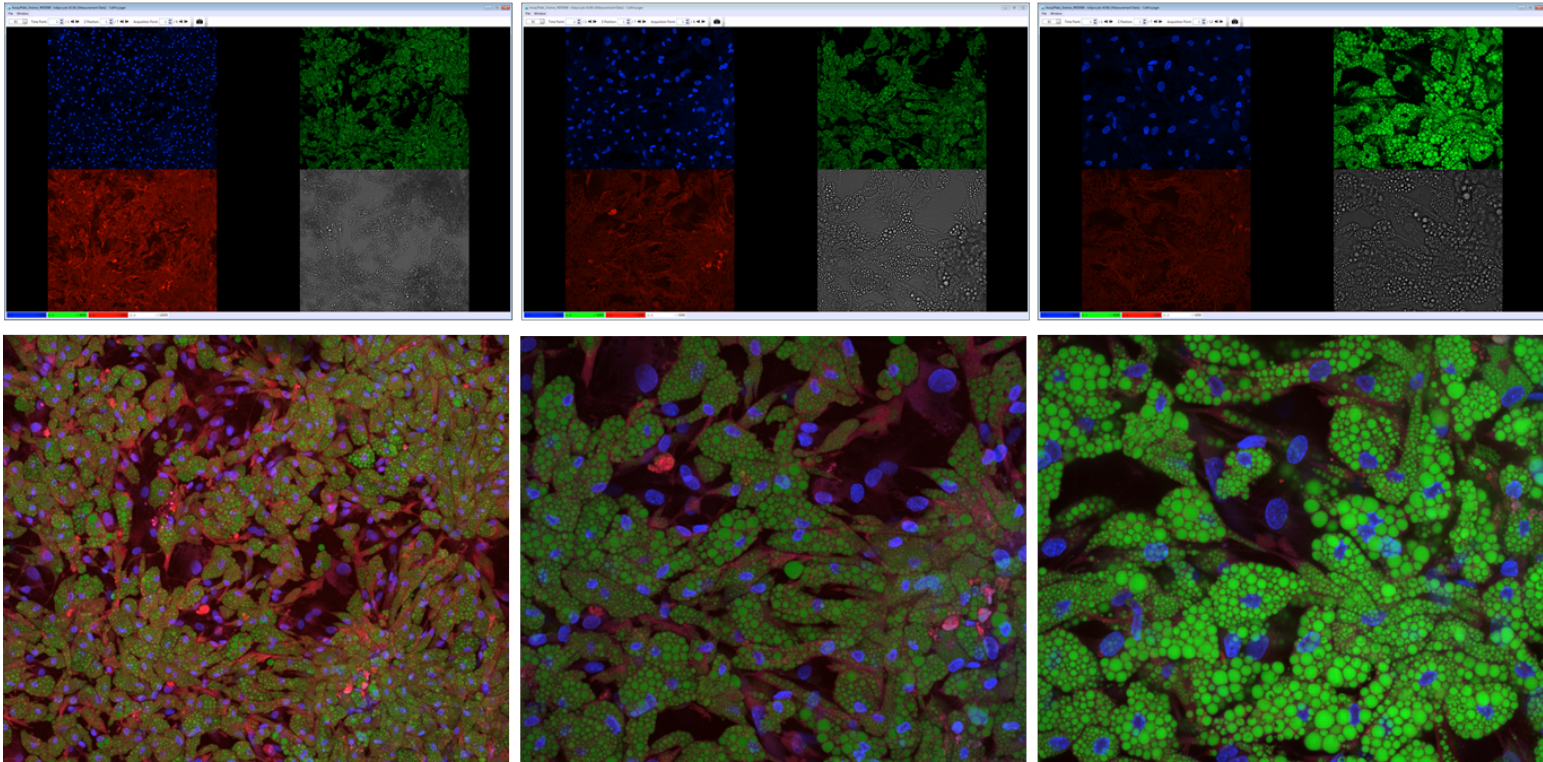
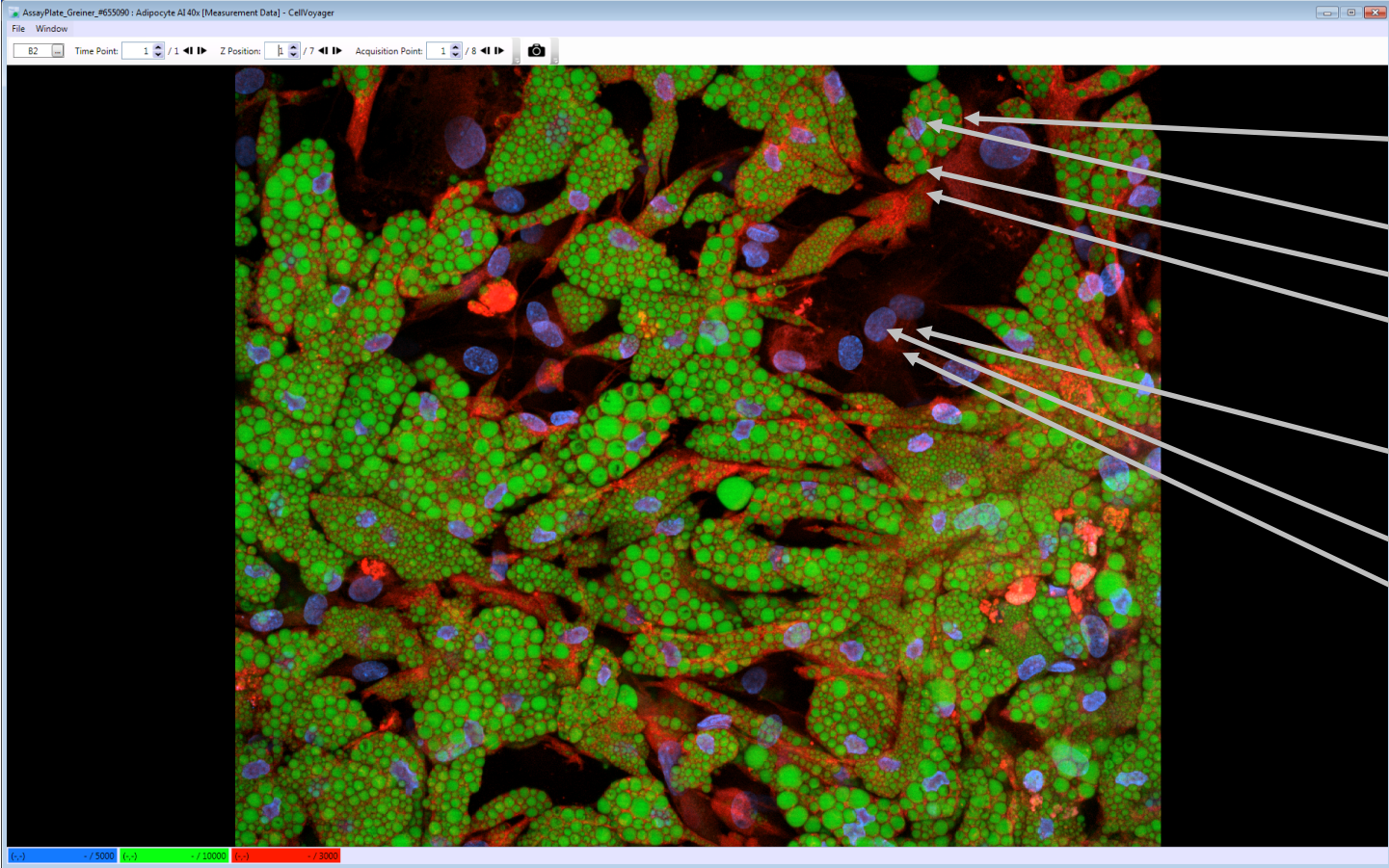60x plane 1, clockwise: nuclei, lipids, brightfield, cytoplasm

| 20x | 40x | 60x |

20, 40 and 60x (left to right) images from site one, well B2.
Here the three magnifications are shown together with the same contrast/brightness.
Upper panels show individual channels. Lower panels show an overlay of
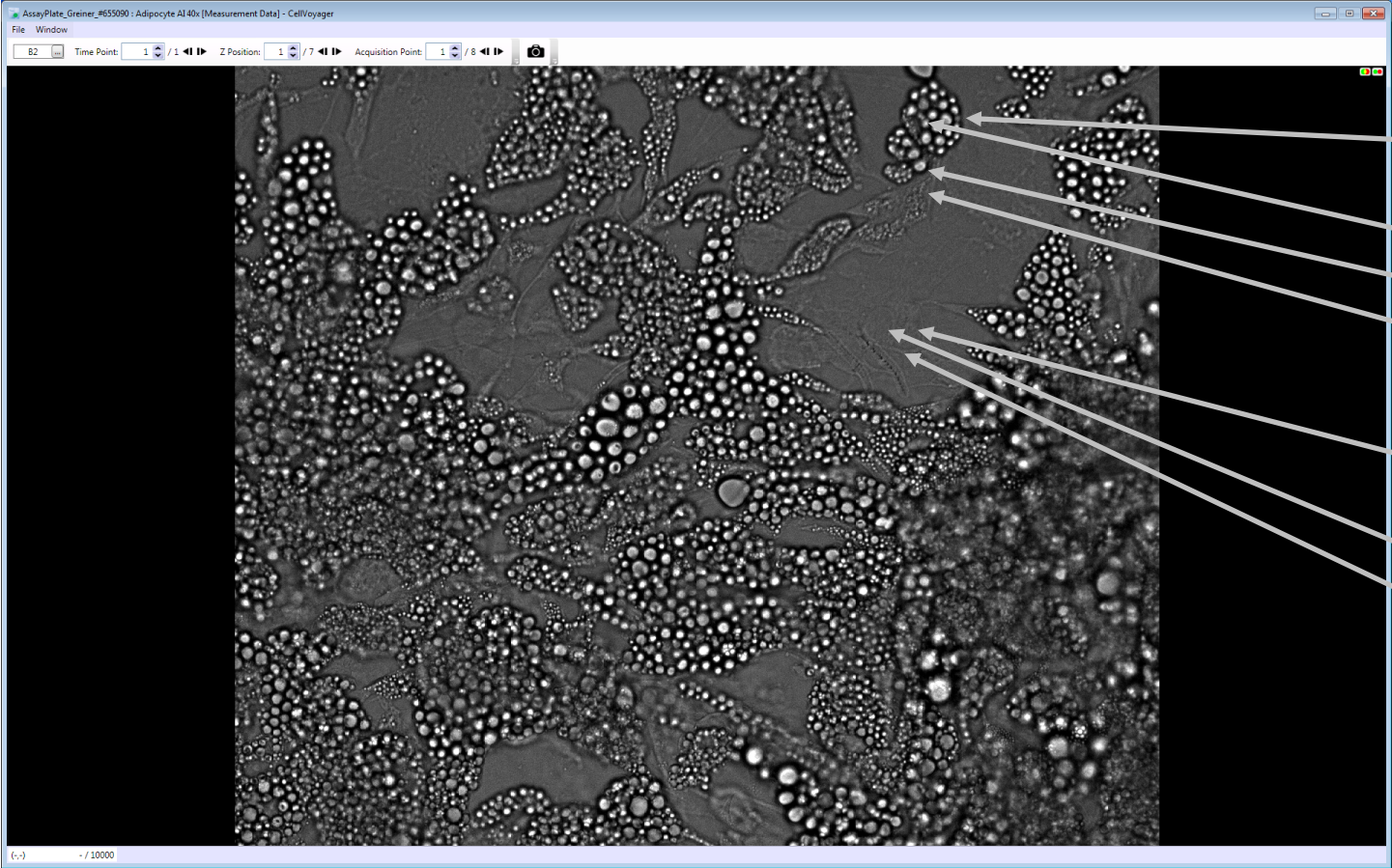fluorescence channels (brightfield not shown).

Representative maximum intensity projections of fluorescence channels, 40x.
Fibroblast-like cells are relatively flat and do not contain droplets.
The following slides show representative brightfield images taken at 7 different z positions
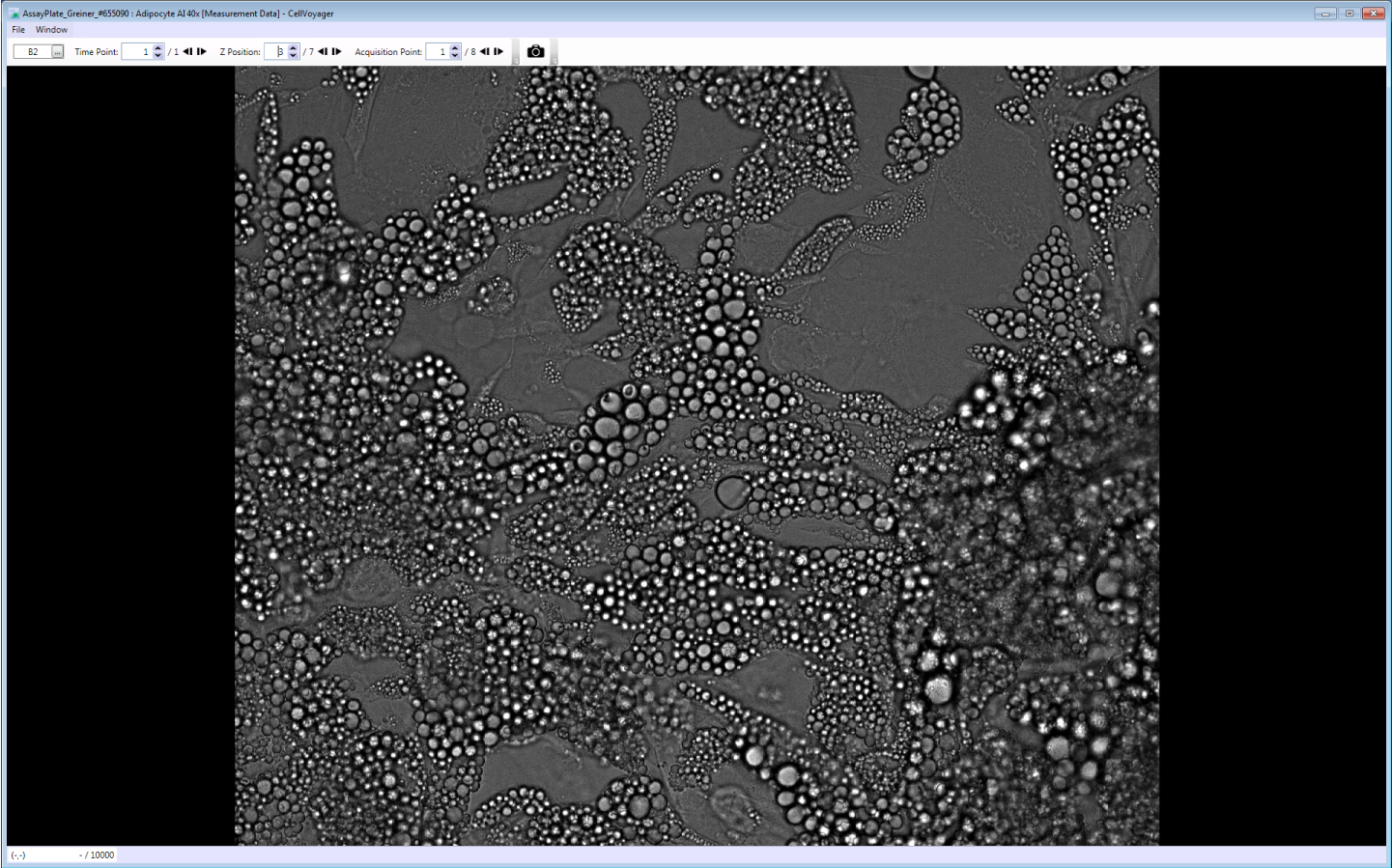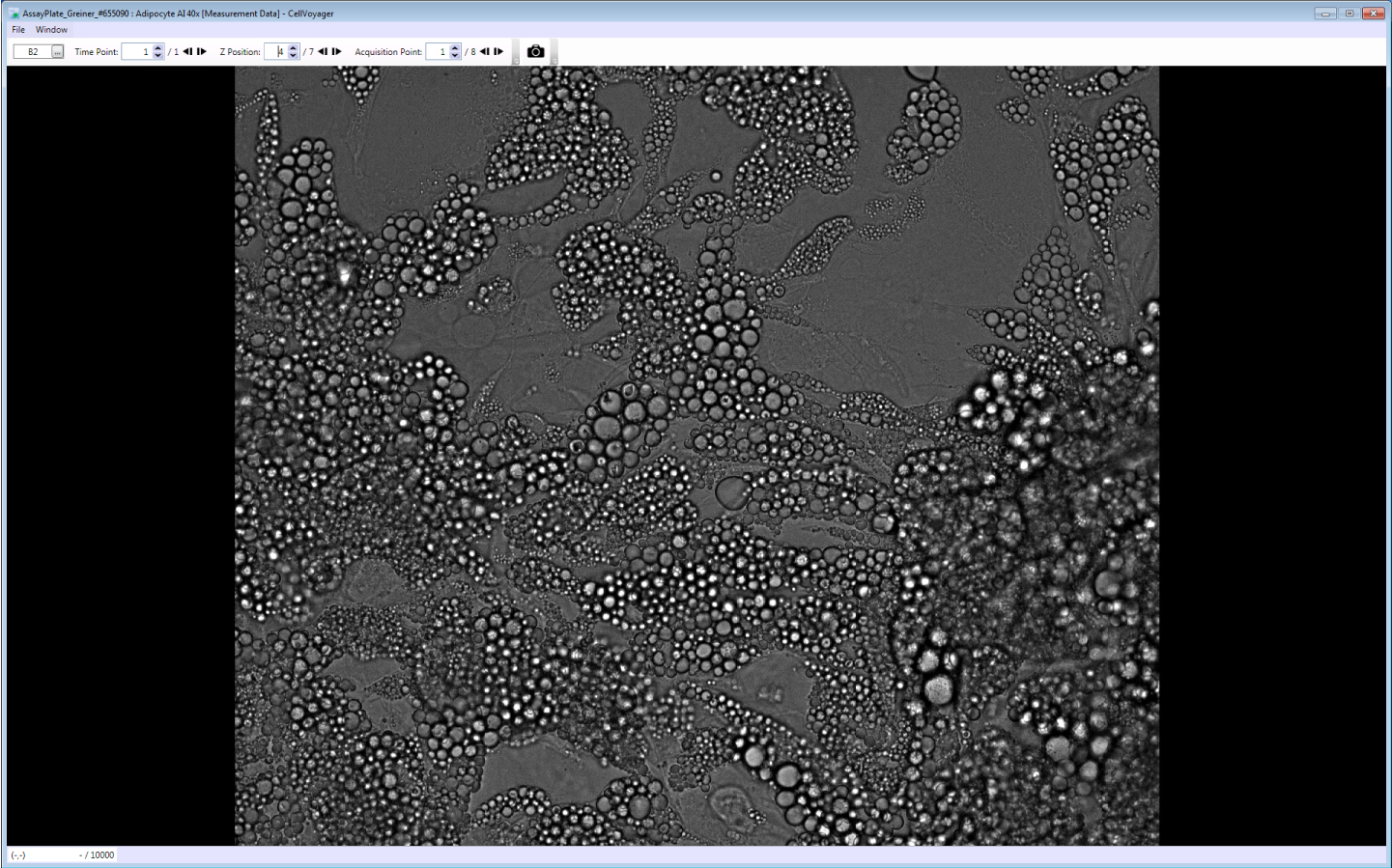
Z planes 1 um slices, slice 1
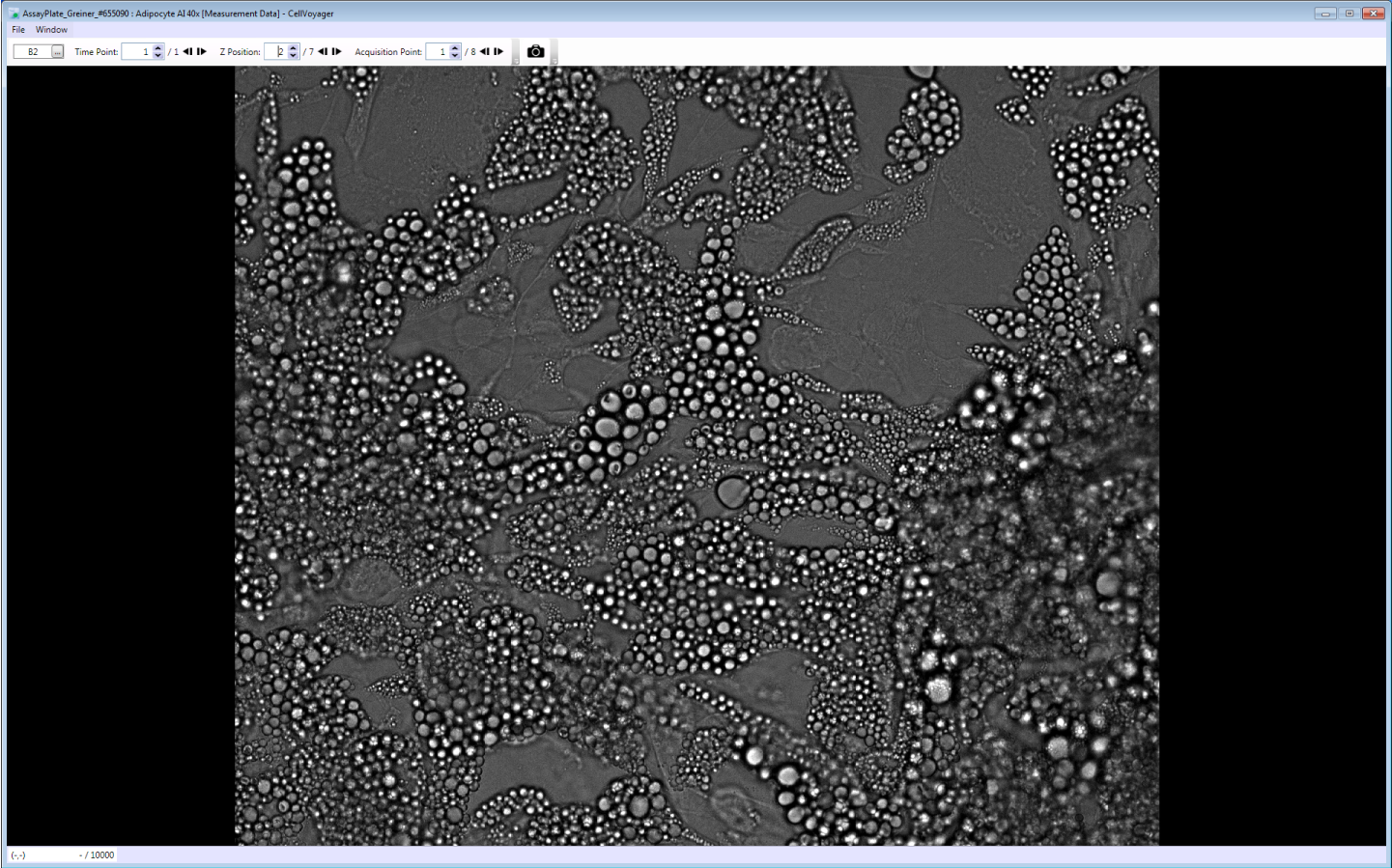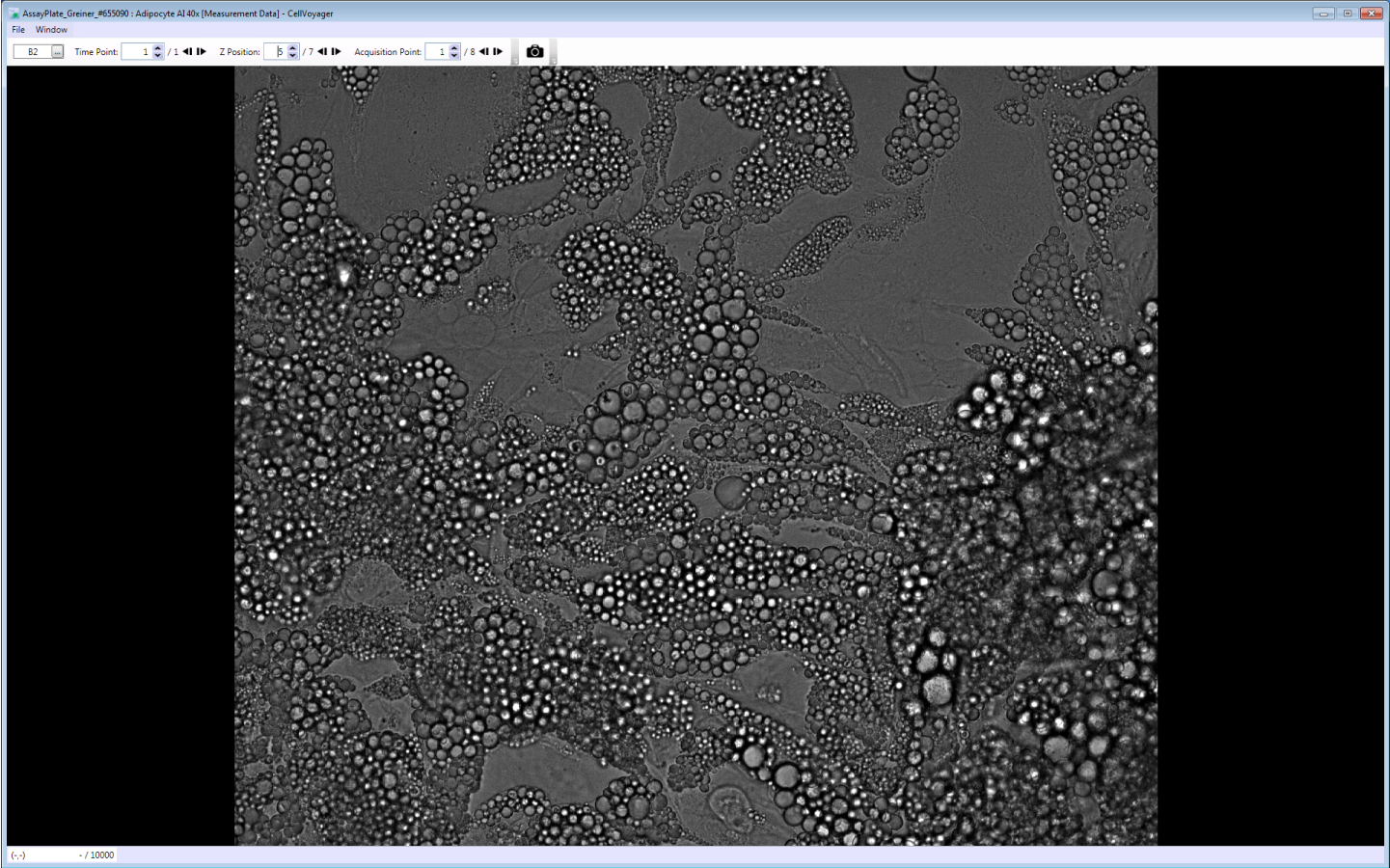
Z planes 1 um slices, slice 2
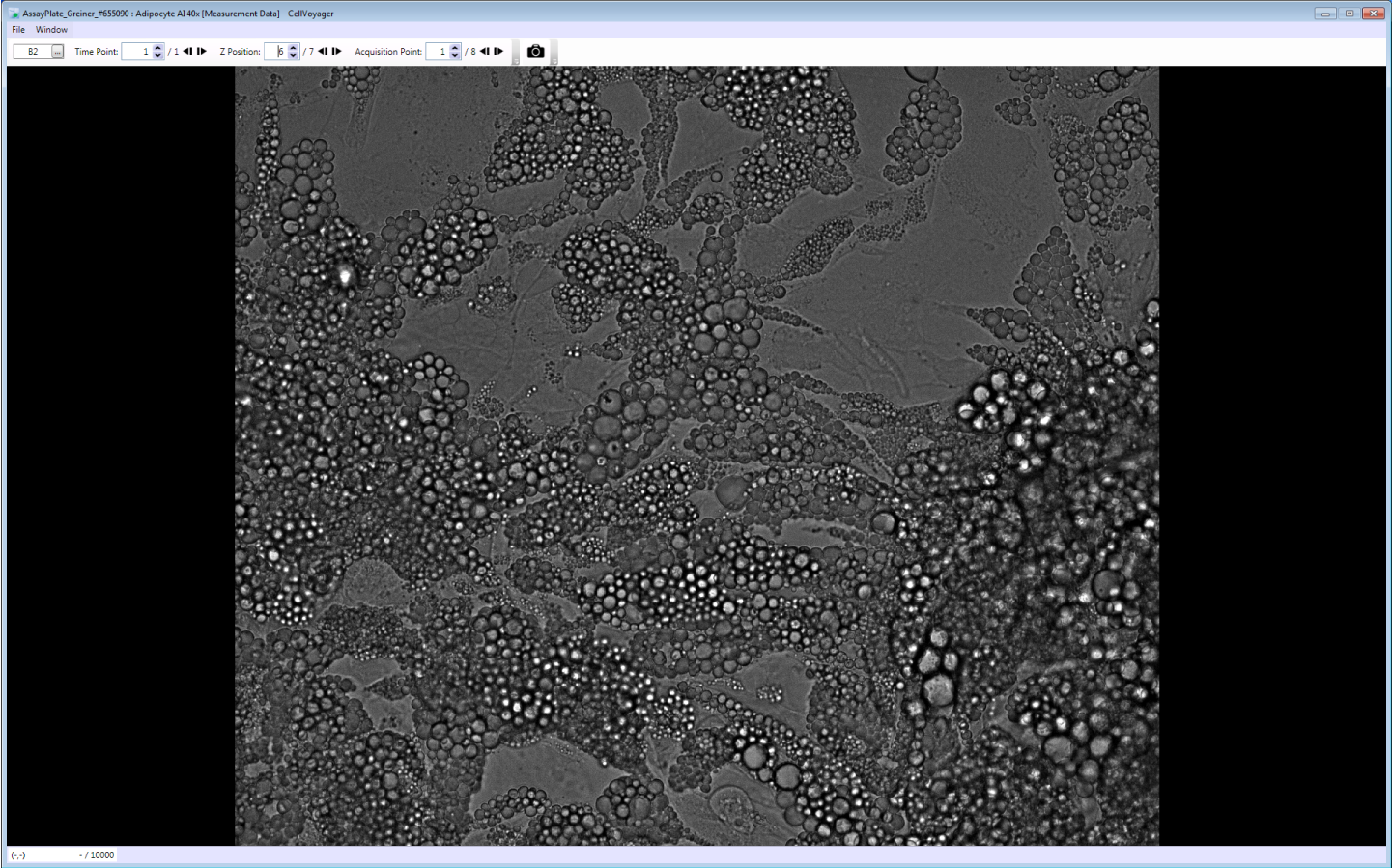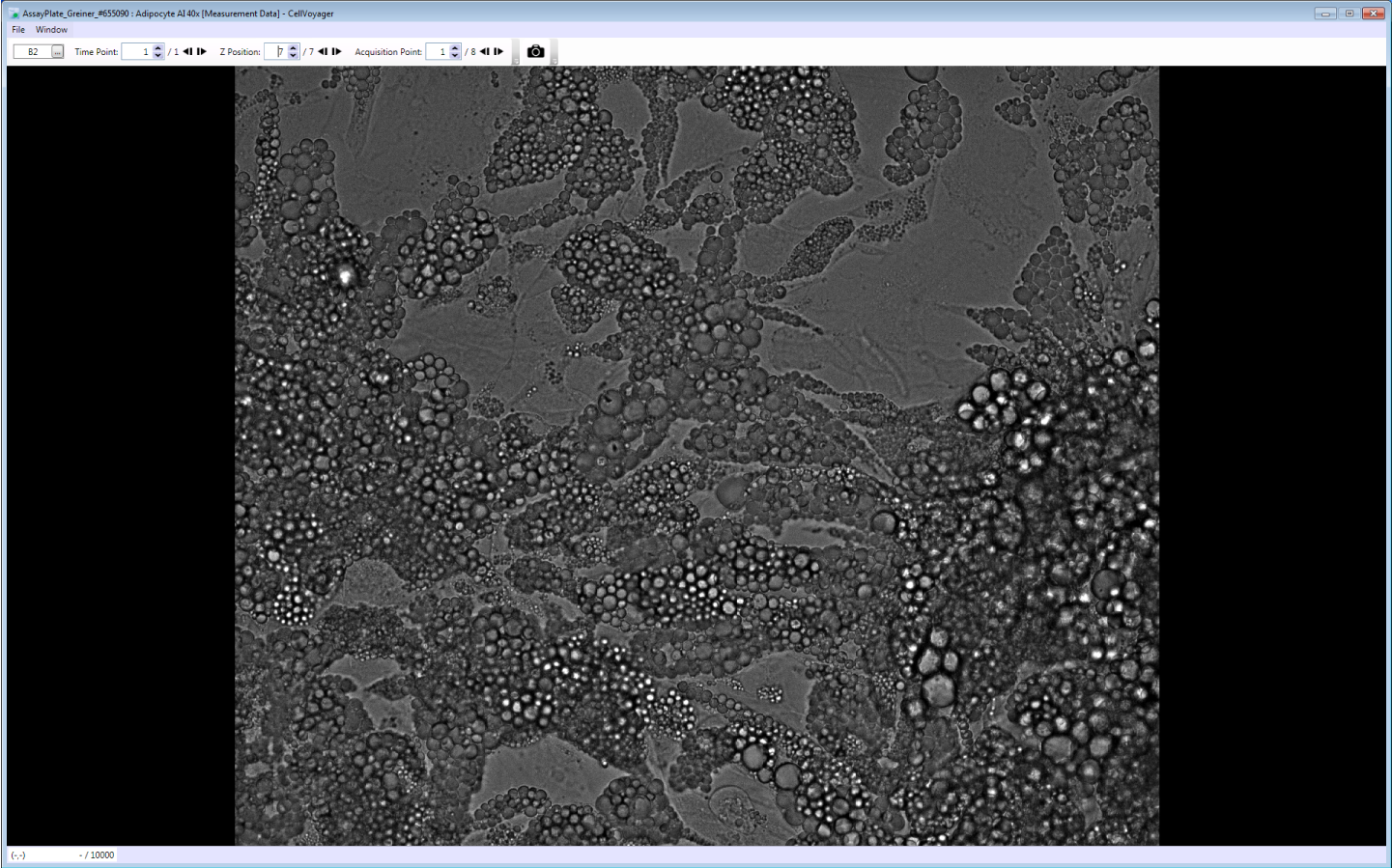
Z planes 1 um slices, slice 3

Z planes 1 um slices, slice 4

Z planes 1 um slices, slice 5

Z planes 1 um slices, slice 6
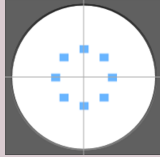
Z planes 1 um slices, slice 7
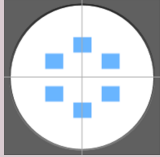
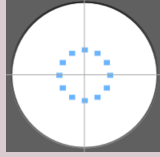# Additional detail regarding each magnification.

	20x	40x	60x
Wells	9	9	9
No. of image sites per well	6	8	12
Site orientation			
Z-planes brightfield	7	7	7
Slice interval, um	2	1	1
Stack depth, um	12	7	7
Pixel scale um/pixel	0.3250	0.1625	0.1083
Objective numerical aperature	0.75	0.95	1.2
Blue exposure, ms	250	300	300
Green exposure	100	200	300
Red exposure	500	500	500
Brightfield exposure	100	100	150