What to Look For Under the Scope?

How do you show someone something they have never seen before? The Bio-Blocks[™] are a paradigm shift. This means we will need new terminology and new eyes. This document is intended to assist the lab, in knowing what to look for and identify that there is cell growth within the Blocks.

- All the enclosed images were taken with the X-Block submerged in media using a 4X objective on an Echo Revolve Microscope in the Upright position
- If only an inverted microscope is available, it is recommended to flip block so that top side (seeded side) is facing the bottom of the well.
 - It is recommended to do this 2 3 days after seeding.
 - If cells (from the initial seeding) have attached to the bottom of the well, do not hesitate to move the block to a clean well to aid with imaging.
- To aid in imaging, blocks can also be imaged without media, for up to 60 minutes depending on lab temperature and humidity (i.e. in winter or higher altitudes with lower humidity keep imaging time down to 15 minutes)



Without a microscope, visual cell density is detectable. This will vary based on how many cells were seeded and how fast cells propagate.





Seeded Day 1

Images Taken Day 12







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Seeded Day 1

Images Taken Day 12

Top of Block (seeded side)

Change of Z Focus





Seeded Day 1

Images Taken Day 12

Top of Block (seeded side)

Diffraction of light through the block can alter the look of where cells are in the Z plane





Seeded Day 1

Images Taken Day 12

Top of Block (seeded side)

Depending on cell type, density and Z position, cells can look translucent or darkly contrasted





Seeded Day 1

Images Taken Day 12





Seeded Day 1

Images Taken Day 12







Seeded Day 1

Images Taken Day 12

Top of Block (seeded side)





Seeded Day 1

Images Taken Day 12

Top of Block (seeded side)

Cell covering the top of the block





Seeded Day 1

Images Taken Day 12

Top of Block (seeded side)

Since cells have room to move in all directions, its not uncommon to find cells on the edge of the block, especially in the corners





Seeded Day 1

Images Taken Day 12





Seeded Day 1

Images Taken Day 12

Bottom of Block

The bottom of the block will have rougher texture due to the nature of the printing process





Seeded Day 1

Images Taken Day 12

Bottom of Block

It generally takes several weeks before cells will be seen here





Seeded Day 1

Images Taken Day 12

Bottom of Block

Depending on Z focus, the bottom of the block can have this appearance





Seeded Day 1

Images Taken Day 12

Bottom of Block





For more images, information, or questions please email info@Ronawk.com

