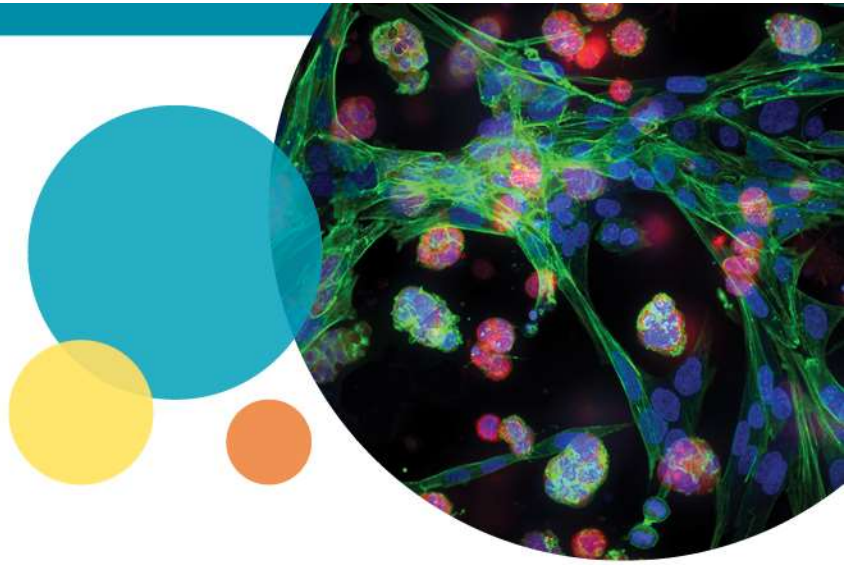

MetaXpress Custom Module Editor

Background Subtraction for Simple Images

Rev A 2018-08-21

MOLECULAR DEVICES
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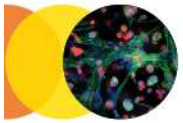
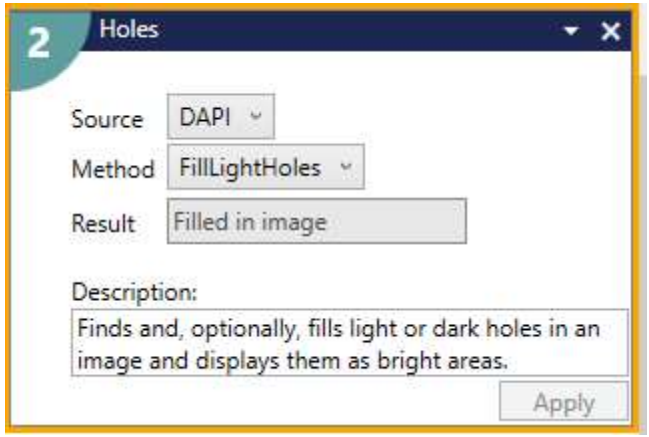
Chapter Purpose

- This guide explains a method for doing background subtraction within the Custom Module Editor. This method is suitable for simpler images/objects, such as nuclei or beads.
- The resulting object intensities will have the background subtracted. This may help in comparing results from plate to plate, where the fluorescent staining may vary.



Step 1: Modify Image > Holes

- Use the FillLightHoles option.
- This will give an image which is mostly just the background, except around the border.



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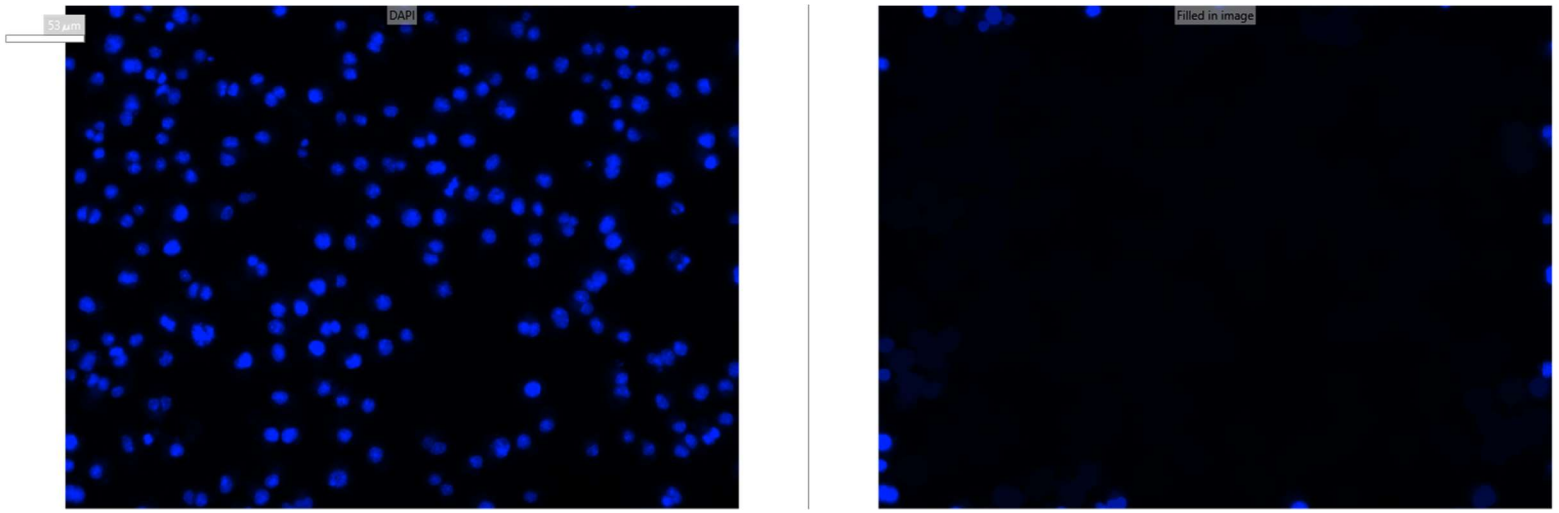
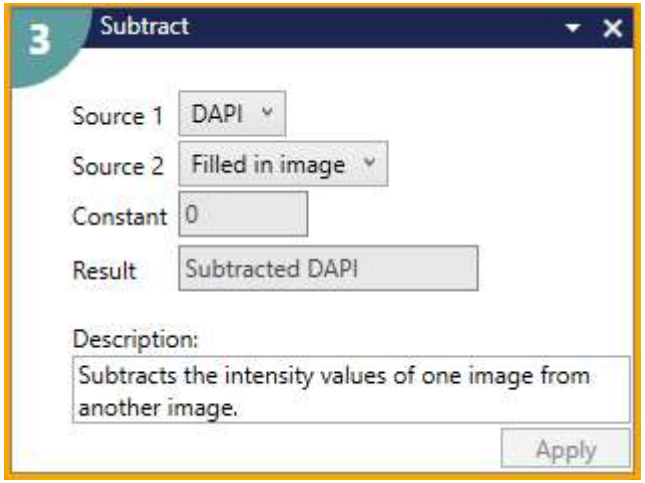


Step 2: Modify Image > Subtract

- Subtract the filled in image from the original image.
- The resulting image will have a background at or very close too zero.



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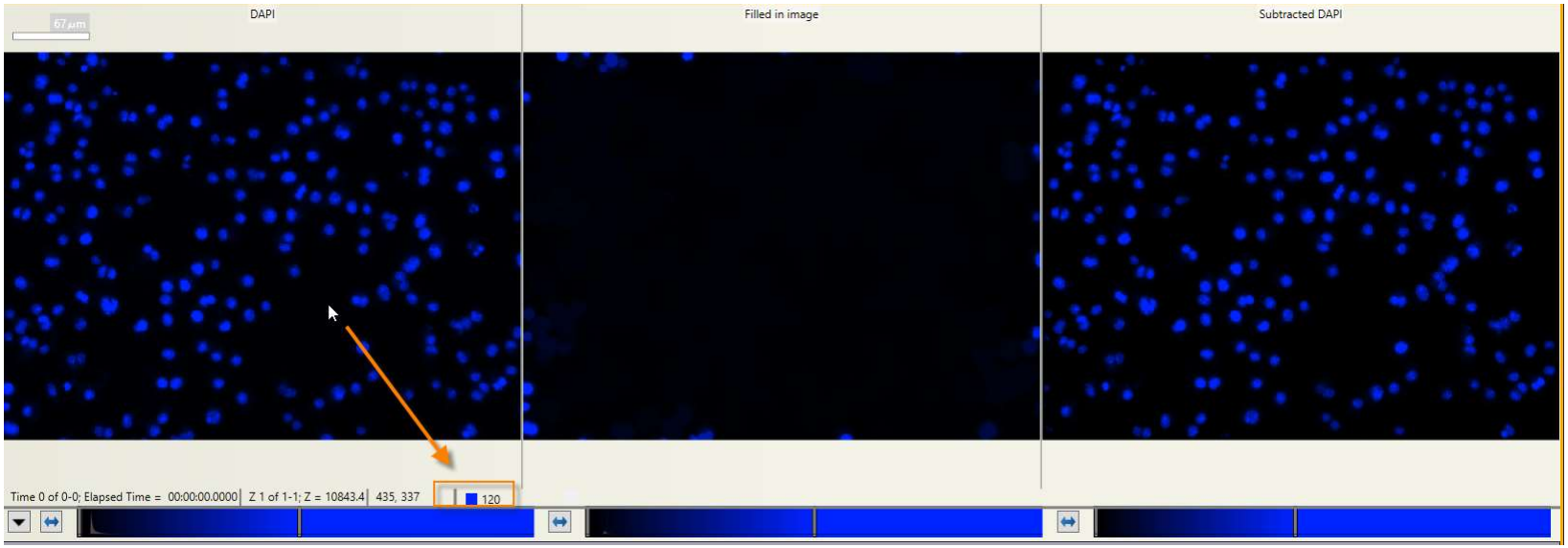

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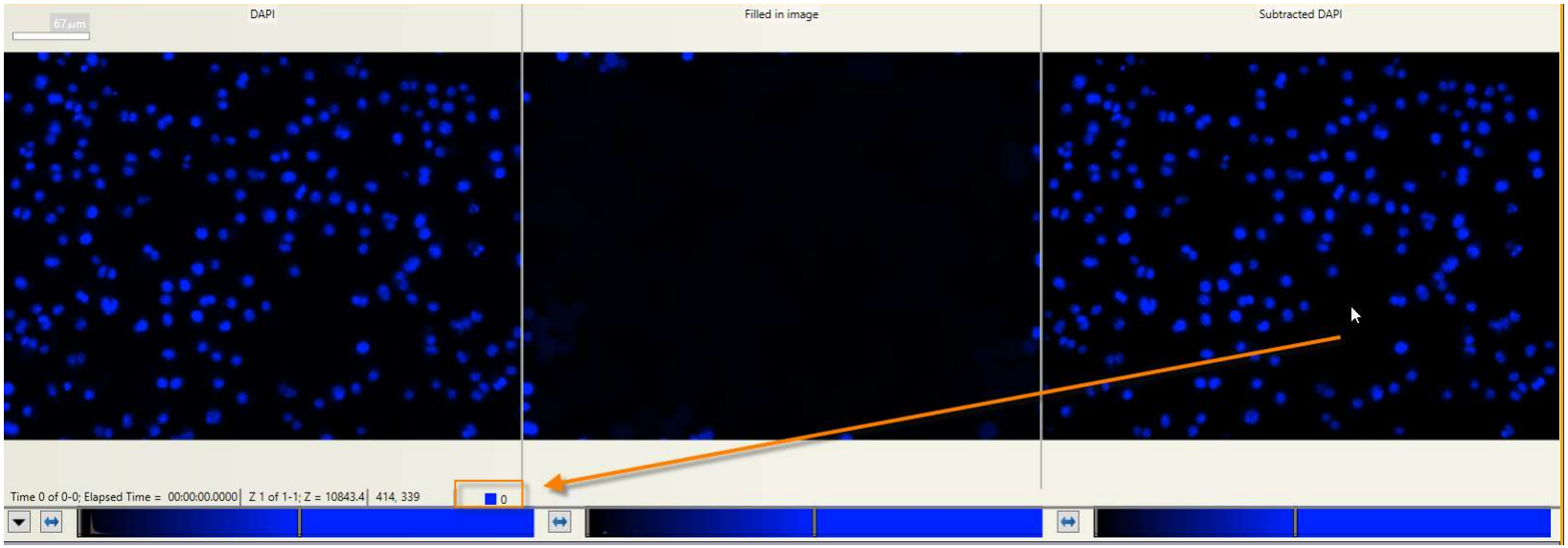
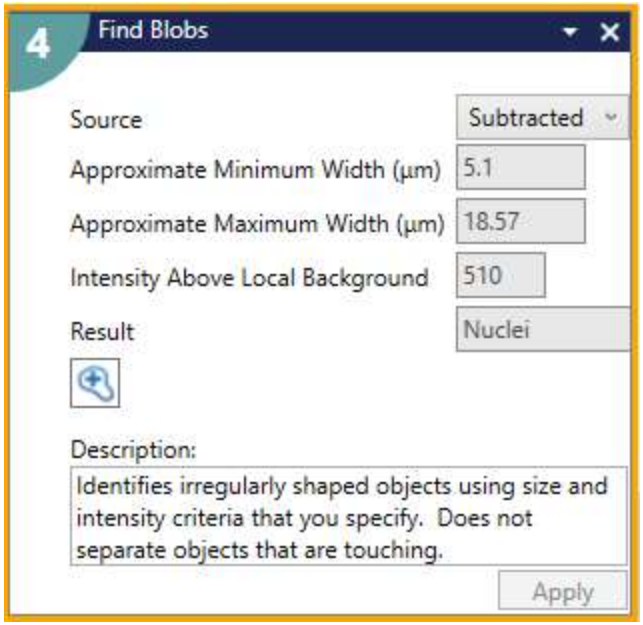


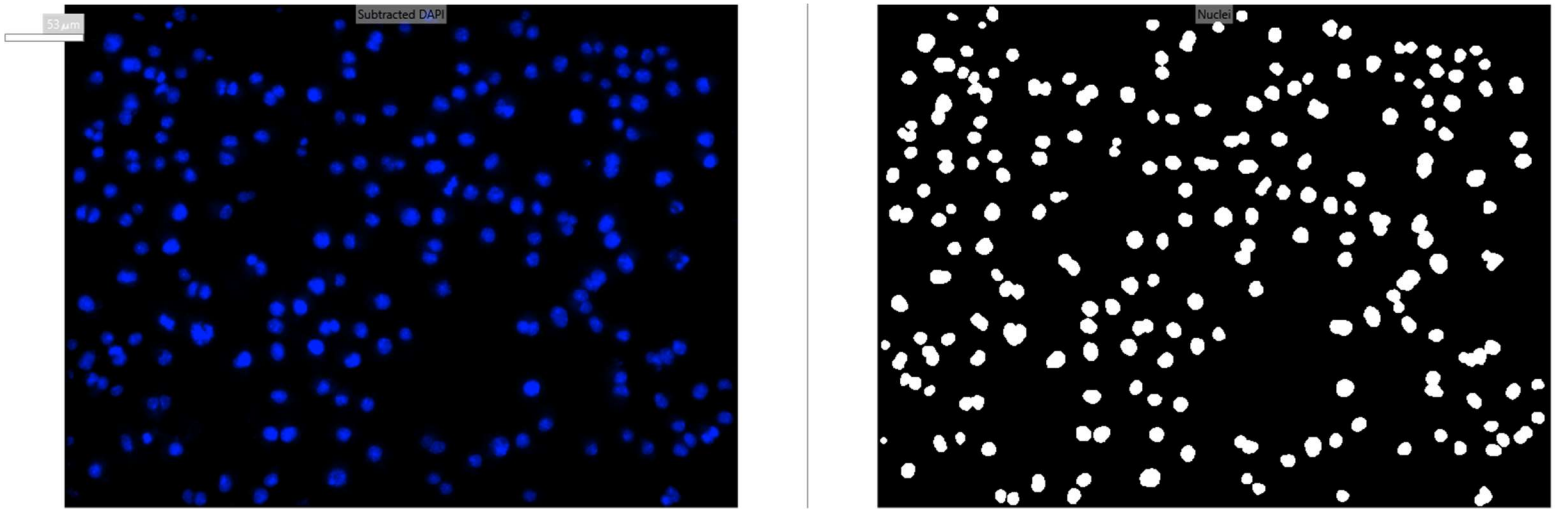
Step 3: Find Objects

- Use a suitable segmentation step, such as Find Blobs.



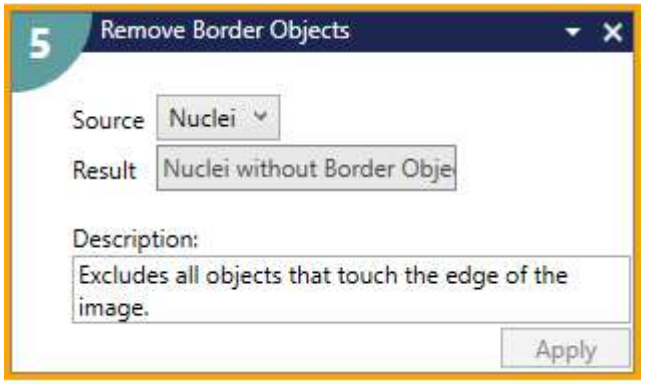
Step 3: Find Objects

- Use a suitable segmentation step on the subtract result, such as Find Blobs.



Step 4: Modify Objects > Remove Border Objects

- Since the objects on the border might not have subtracted correctly, these are removed from the final result so that they will not be measured.



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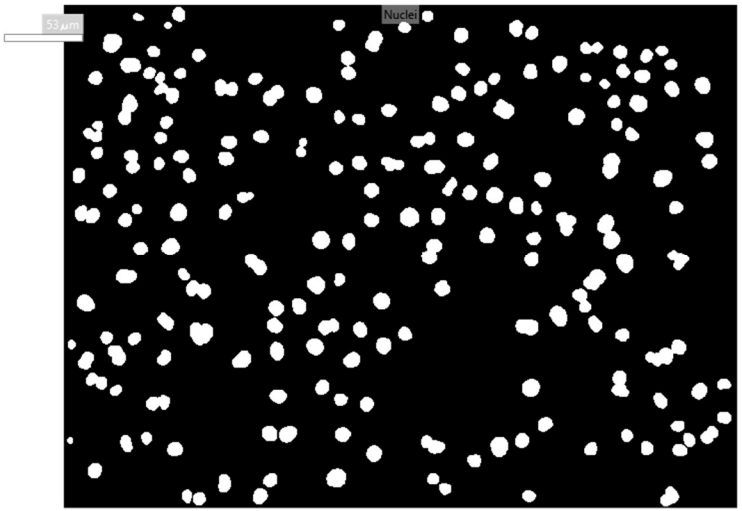
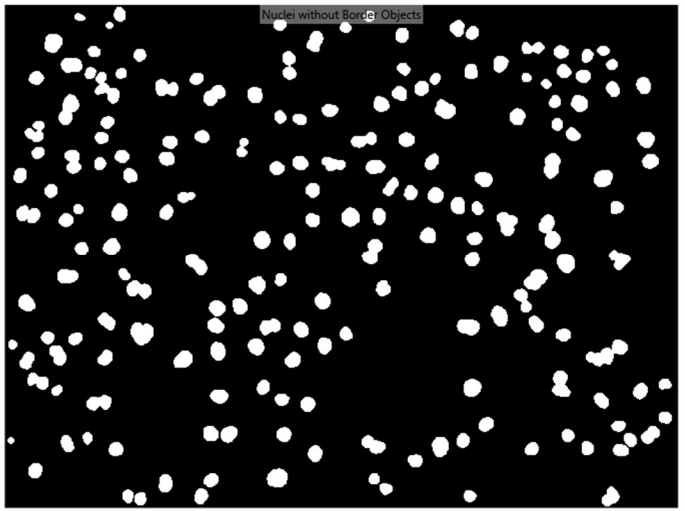
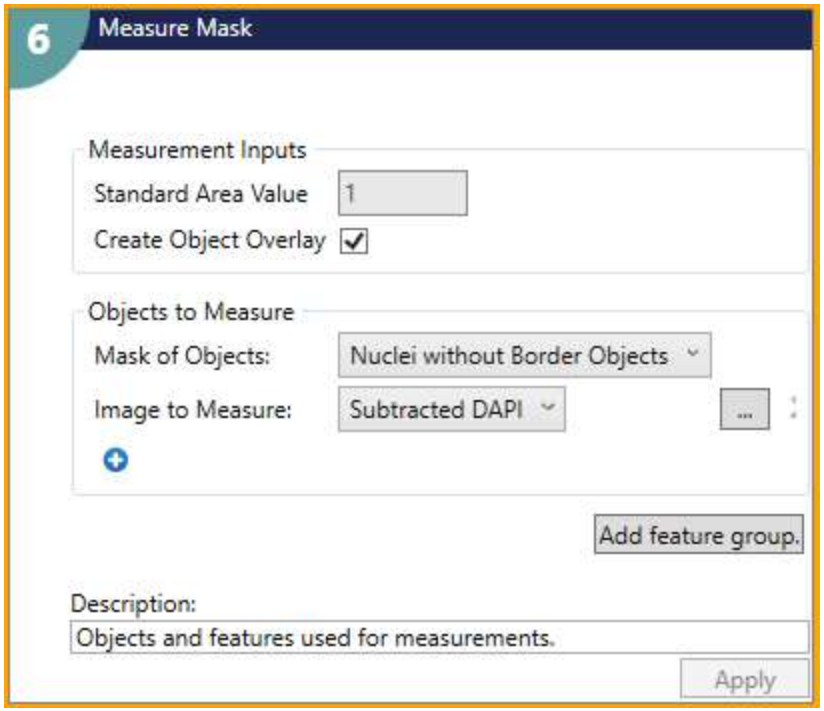




Step 5: Measure

- Set up measurements, making sure to select the subtract result image for intensity measurements



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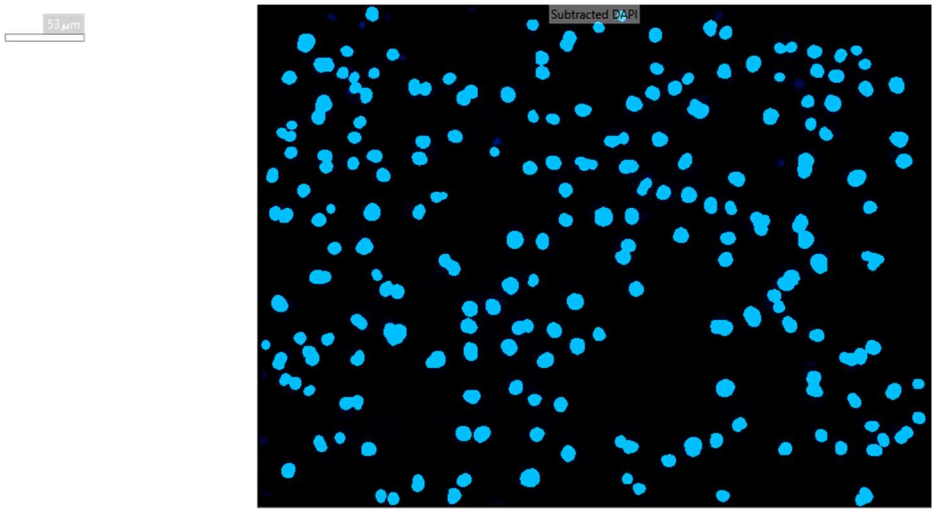

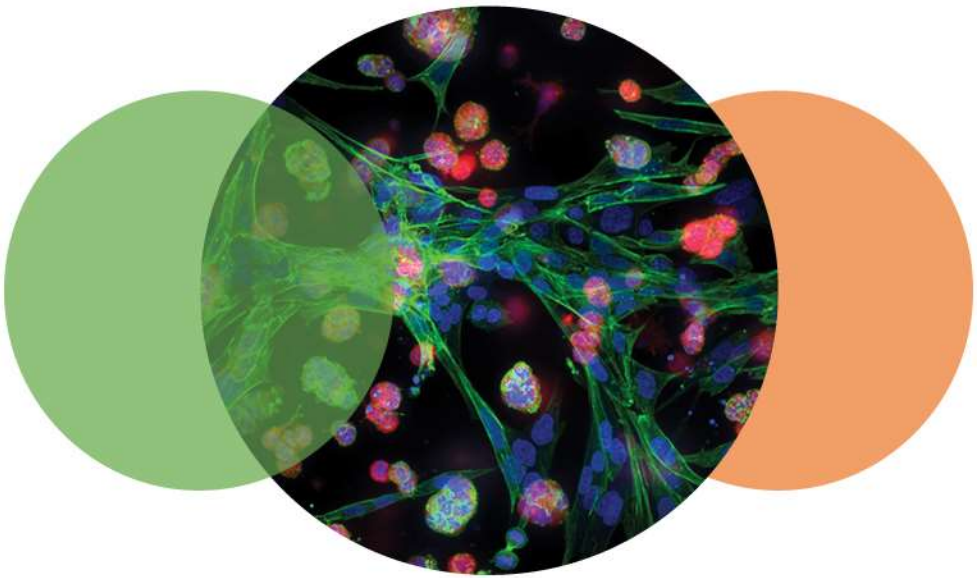

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