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New Journal

Well = Screen.Status.WellName + "_" + + "Site" + str(Screen.Status.SiteNum)
Power = str(Component.405_Laser_Power.Position)  +"% " +"Laser Power"

IF Screen.Status.WaveNum=2 THEN
    Segmentation of miRFP for Targeting

    EDIT ANALYSIS for MiRFP from here [LINE 1] to [Line 19]
    1: New "LowPass" = Basic Filters("Camera NIR", 5, 5)
    2: New "Segmentation" = Count Nuclei(Src=[1: Basic Filters])
    3: Close([1: Basic Filters])
    4: Threshold Image([2: Count Nuclei], 1, 65535, Inclusive)
    5: New "miRFP Binary" = Binarize([2: Count Nuclei]), high = current value, low = current value
    6: Close([2: Count Nuclei])
    IF dilate equals "nucleus", then use nucleus segmentation, but remove objects around the edges. Else, dilate the actvatior
    IF size_dilate = 0 THEN
        7: Integrated Morphometry - Load State("exclude-objects-borders")
        8: Integrated Morphometry - Measure([5: Binary Operations])
        9: Integrated Morphometry - Create Objects Mask()
        10: Create Regions Around Objects("IMA Objects Mask")
        11: Transfer Regions("IMA Objects Mask", "Camera NIR", ALLREGIONS)
        12: Close([5: Binary Operations])
        13: Close("IMA Objects Mask")
    ELSE
        14: Integrated Morphometry - Load State("miRFP Segmentation_Single Bin")
        15: Integrated Morphometry - Measure([5: Binary Operations])
        16: Set Image Zoom([5: Binary Operations], 100)
        17: New "Centroid_Binary" = As Displayed([Last Result], Entire image)
        18: Set Color Threshold([17: As Displayed], RGBCOLORMODEL and INCLUSIVEHUE and STATEINCLUSIVE, 254,
        19: New "MiRFP Centroid" = Binarize([17: As Displayed]), 1, 255
        20: New "Dilate" = Morphological Dilate([19: Binary Operations], Circle)
            size = size_dilate
        21: Create Regions Around Objects("Dilate")
        22: Transfer Regions("Dilate", "Camera NIR", ALLREGIONS)
        23: Close([20: Morphological Dilate])
        24: Close([19: Binary Operations])
        25: Close([17: As Displayed])
    END IF

    **********TARGETING FOR MOSAIC -NO NEED TO EDIT SCRIPT/CHANGE BELOW THIS LINE**********
    26: Select Image("Camera NIR")
    IF Image.NumRegions >=1 THEN
        Reg = 1
        Total_Regions = Image.NumRegions +Total_Regions
        Regions are Saved and loaded to Mosaic for Targeting
        Run Journal C:\MM\app\mmproc\journals\Mosaic journals\Save ROI Batch 1.jnl
        current_illumination = Device.Illumination.Setting
        27: Select Illumination("Camera GFP")
        28: Targeted Illumination = Targeted Illumination(Illum setting=Camera GFP, Coord setting=20X APO, Active region, I
            Coordinate system setting = Device.Magnification.Setting
            Mask Exposure Duration [ms] = pulsetime
        29: Delay(MILLISEC)
            Time = pulsetime
        30: Select Illumination("Camera GFP")
            Setting Name = current_Illumination
        31: Clear All Regions("Camera NIR")
    ELSE
        Reg = 0
        Dont' Utilize the Mosaic on this Field of VIew
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    END IF
ELSE

END IF


Create Overlay Images for Final Display Purposes
IF Screen.Status.WaveName="Camera RFP_532x_Post" THEN
    IF Reg=1 THEN
        32: New "Color Combine" = Color Combine("Camera NIR", "Camera GFP", [None])
        33: Text([32: Color Combine], 10, 10, 0, 255, 0, Arial, Bold, 9, "%Well% Pulse Time: %pulsetime%  Power: %Power%
        34: Load Regions([32: Color Combine], "Batch 1 ROI Targeting")
        35: Add to "Target Regions Overlay" = As Displayed([32: Color Combine], Entire image)
        36: Close([32: Color Combine])
    ELSE
        37: New "Color Combine" = Color Combine("Camera NIR", "Camera GFP", [None])
        38: Text([37: Color Combine], 10, 10, 0, 255, 0, Arial, Bold, 8, "%Well%       Pulse Time: %pulsetime%       Power: %P
        39: Add to "Target Regions Overlay" = As Displayed([37: Color Combine], Entire image)
        40: Close([37: Color Combine])
    END IF
ELSE
END IF
```