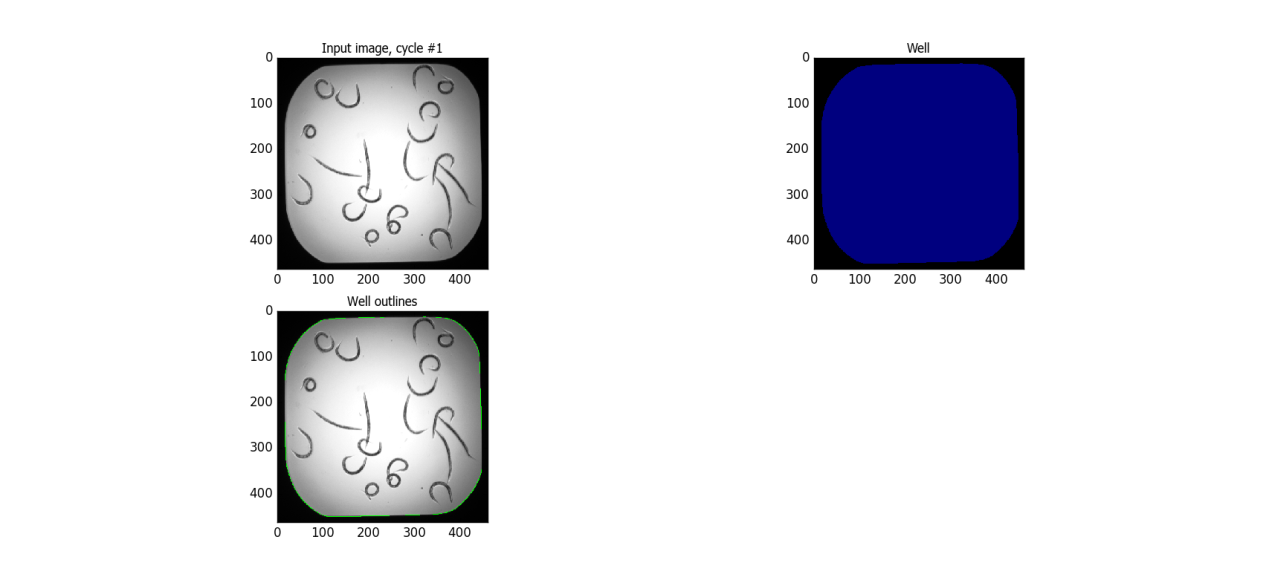
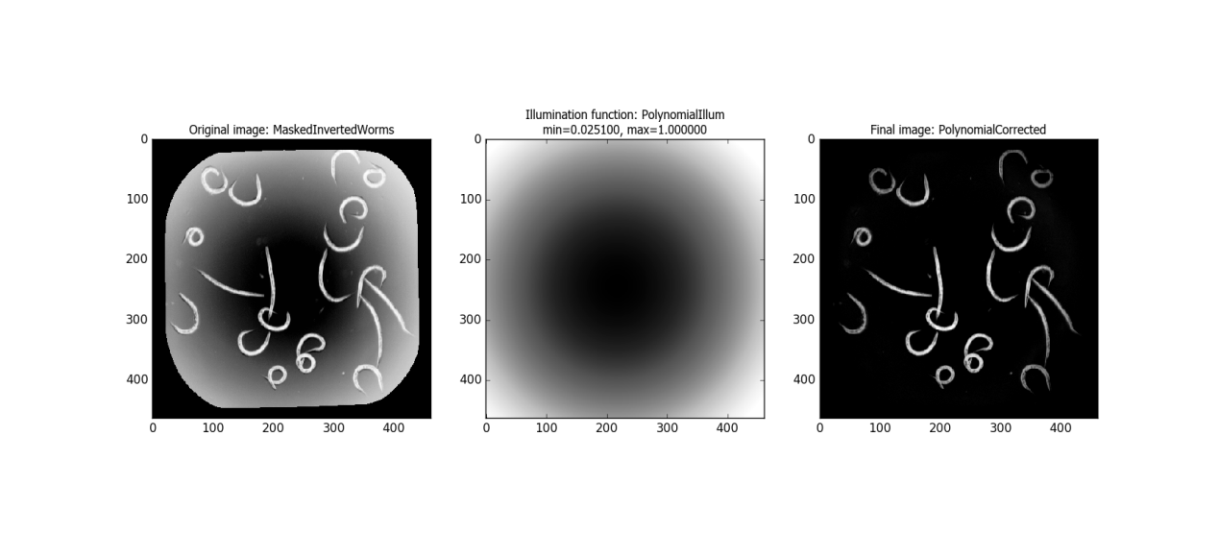
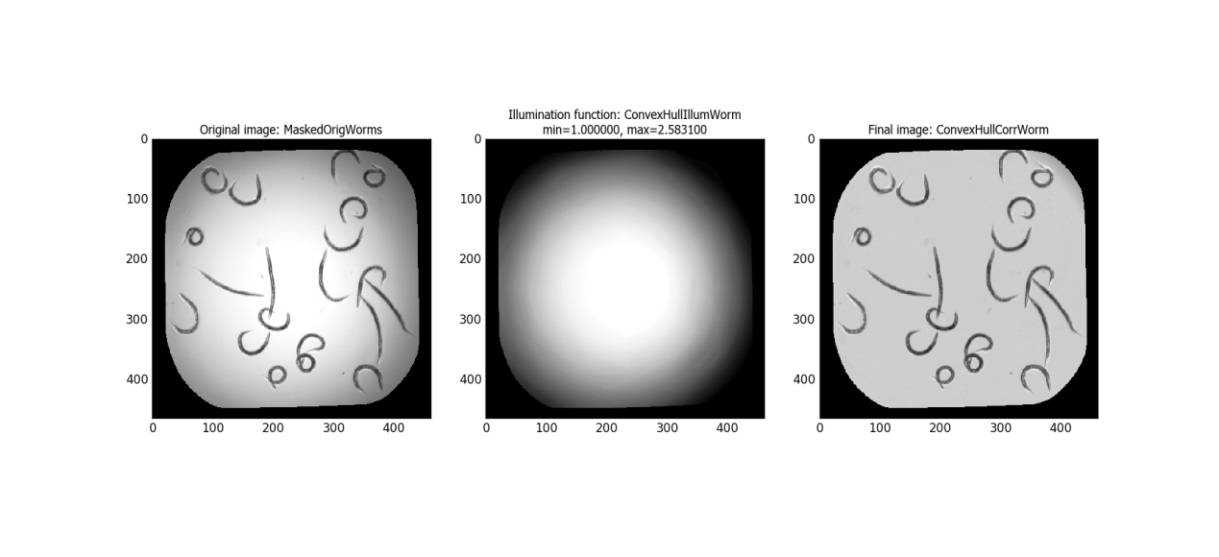
**Supplementary Material for**

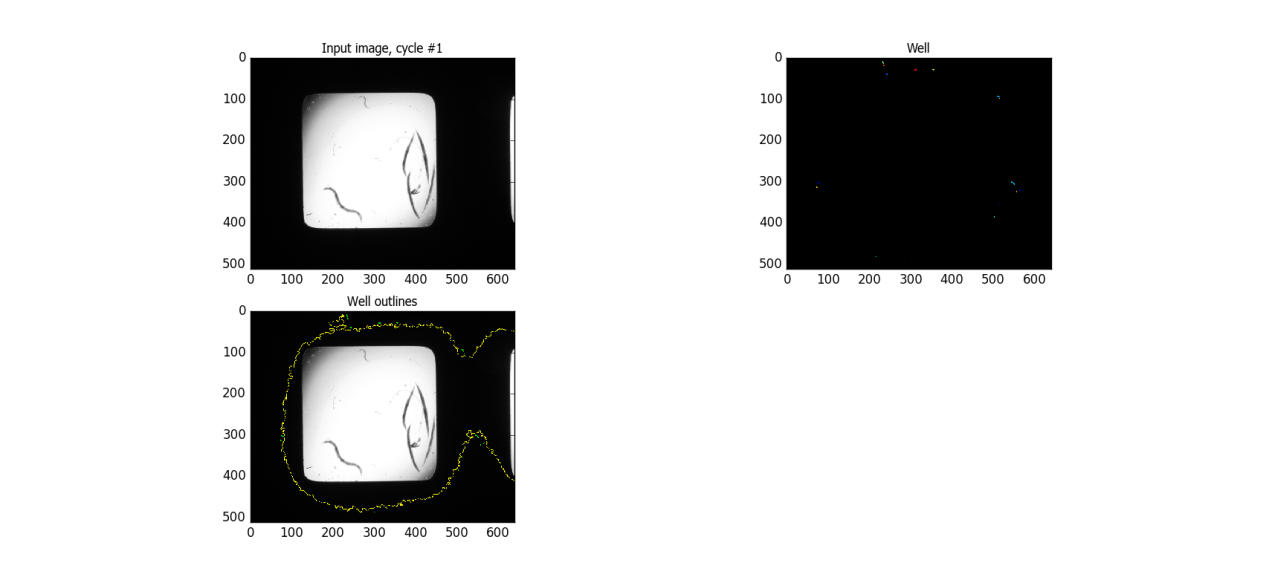
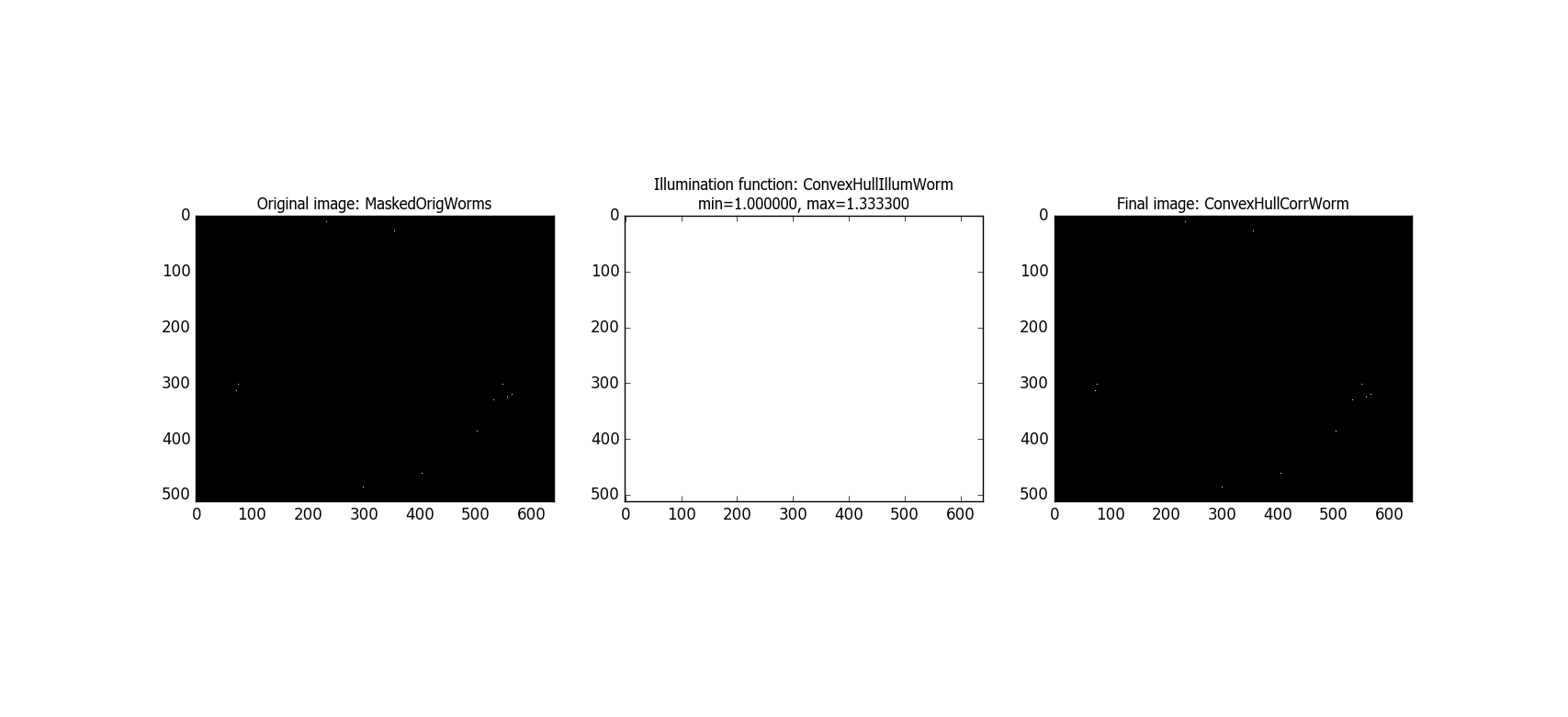
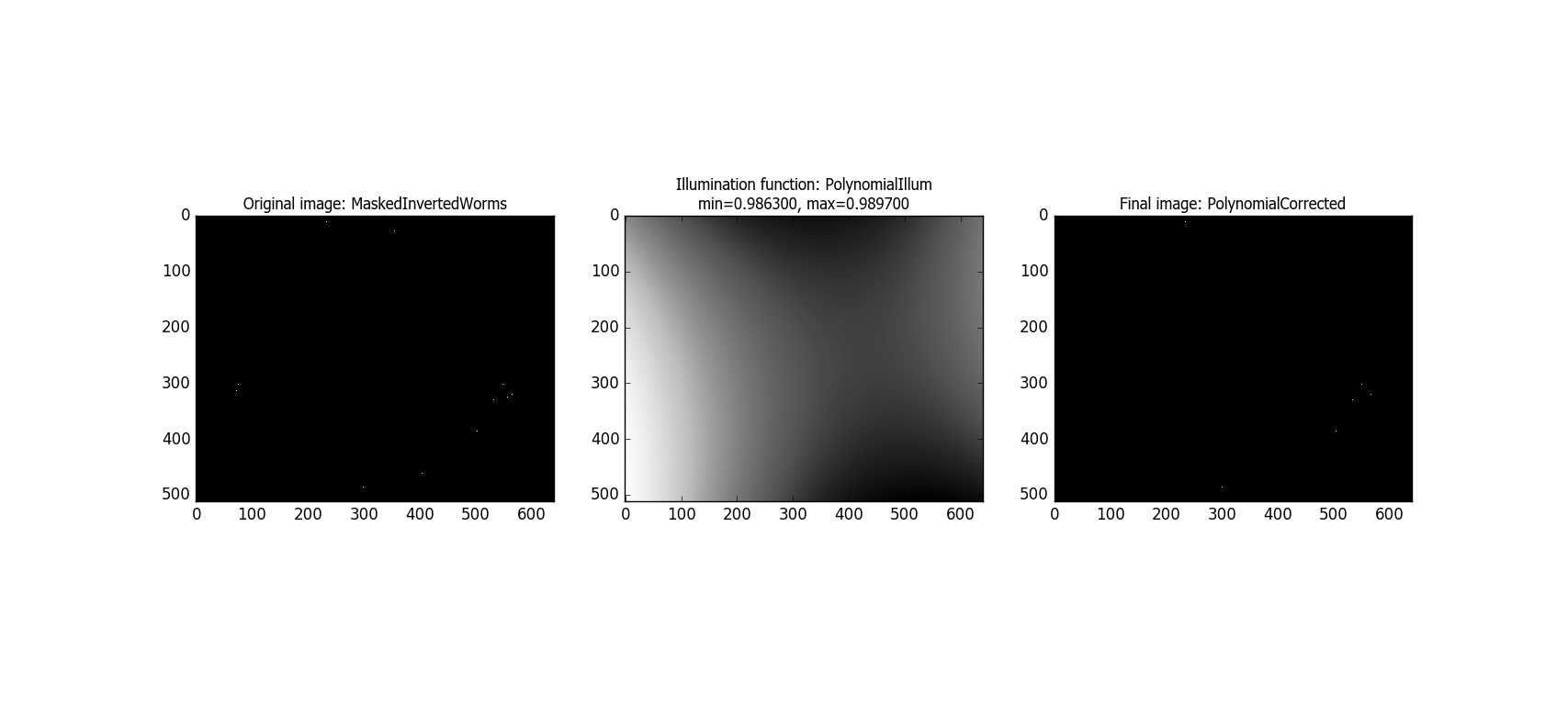
Segmenting microscopy images of multi-well plates based on image contrast

Weiyang Chen 1,\*, Bo Liao 2, Weiwei Li 1, Xiangjun Dong 1,\*, Matthew Flavel 5, Markandeya Jois 5, Guojun Li 3, 6 and Bo Xian 4

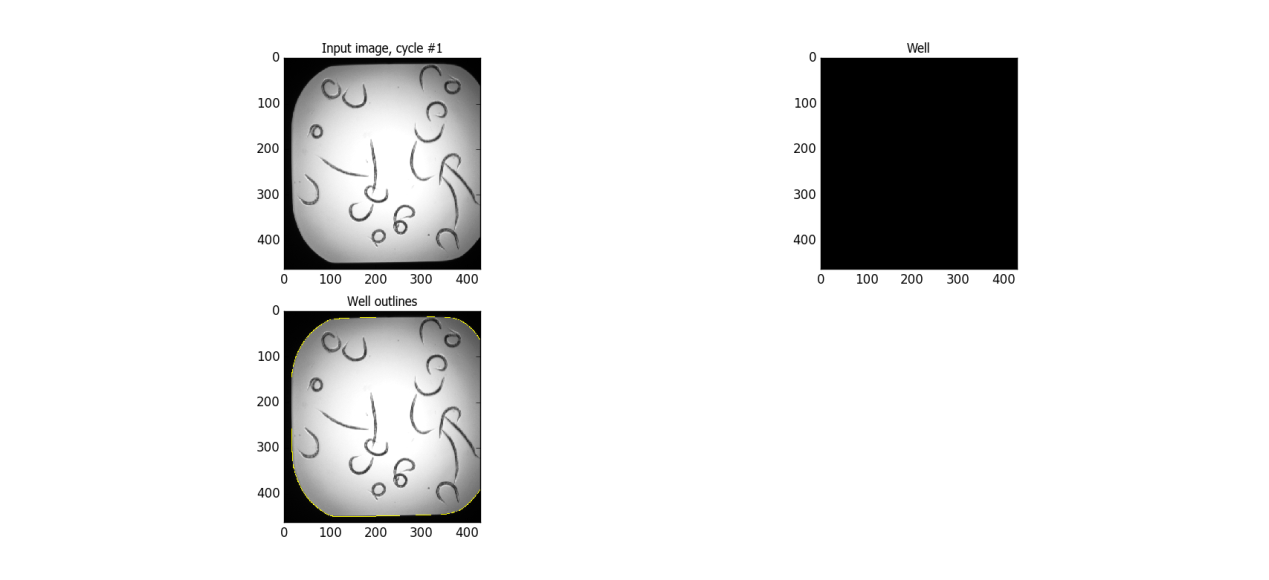
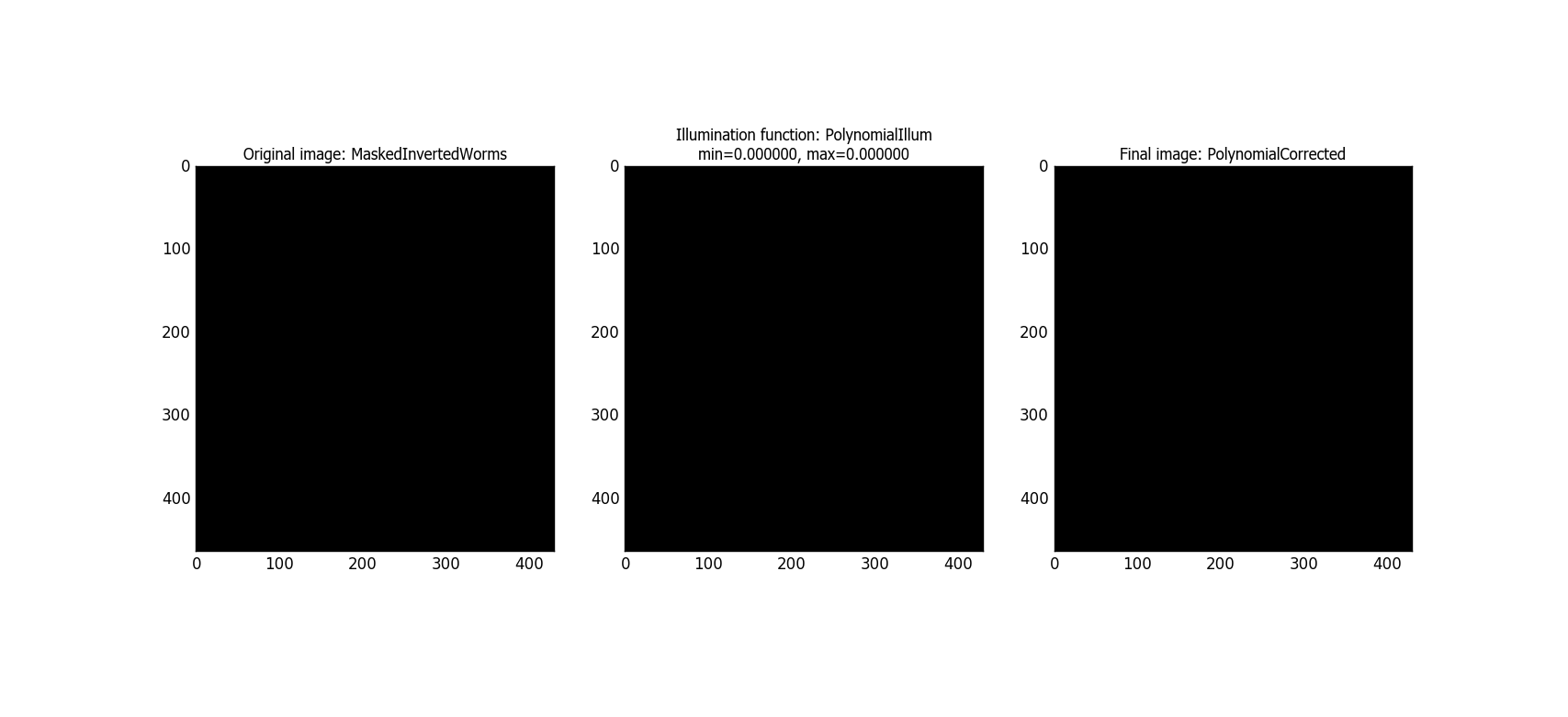
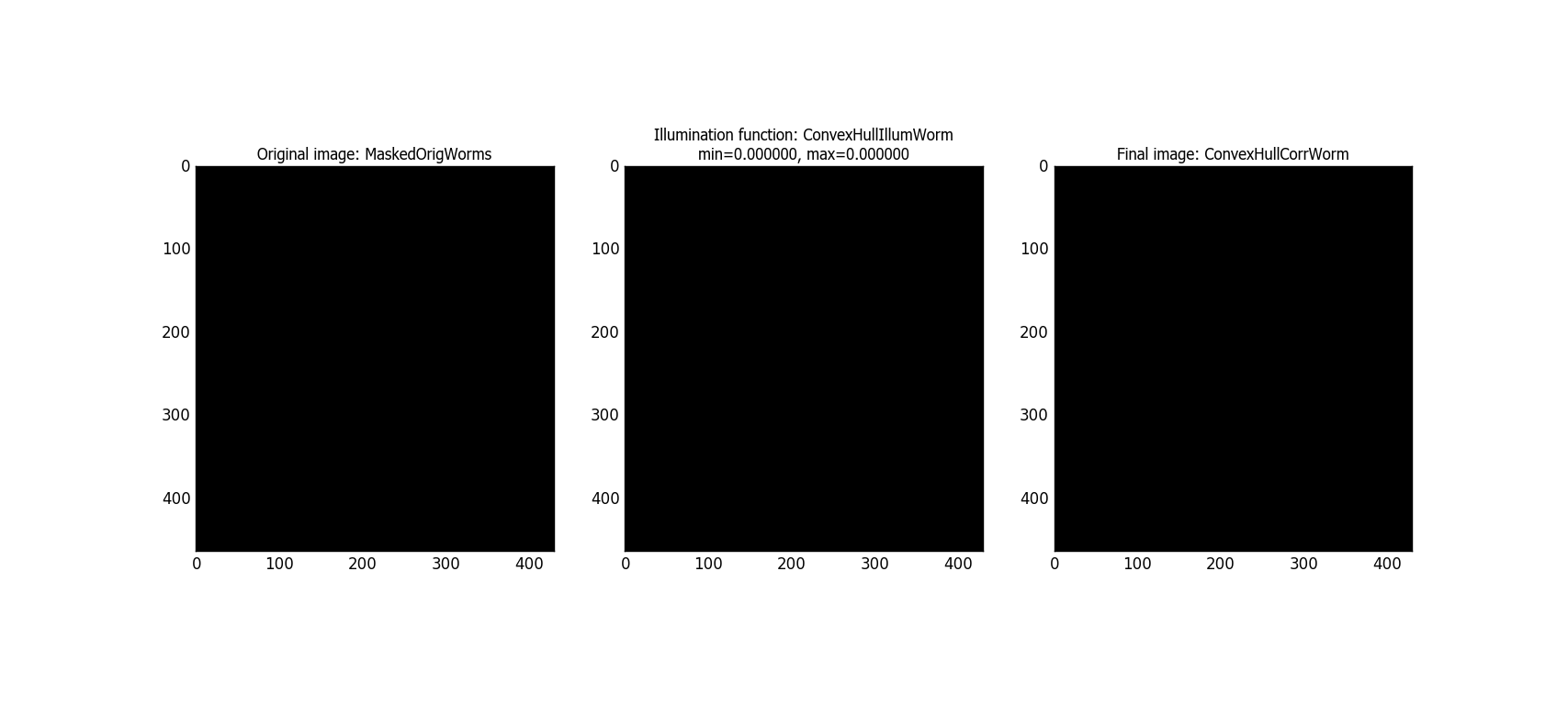
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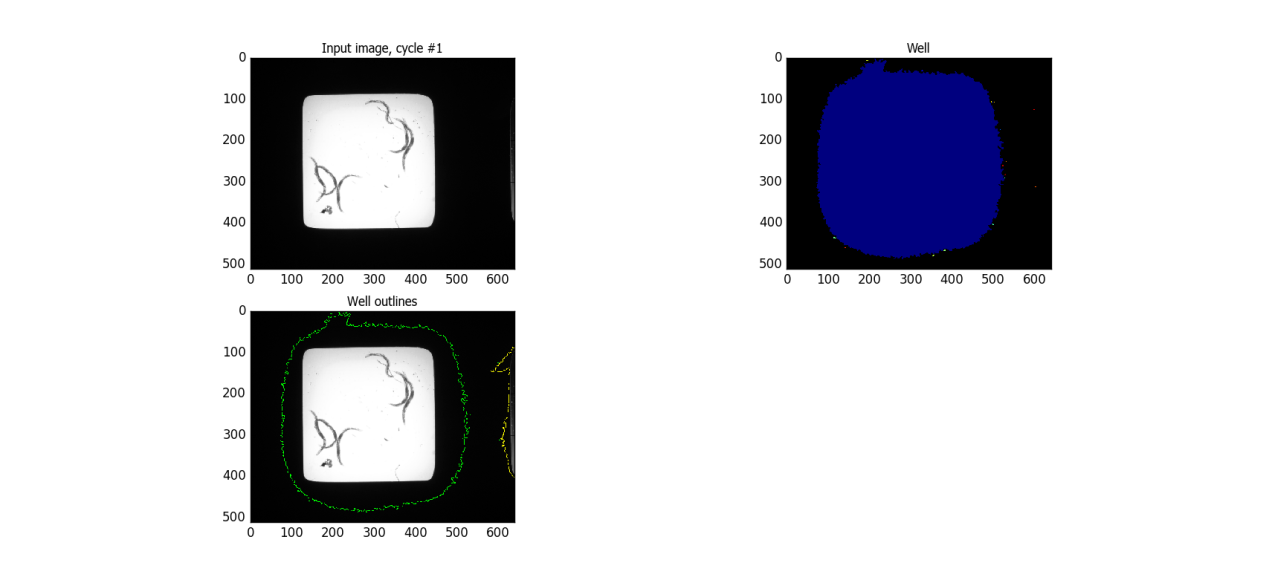
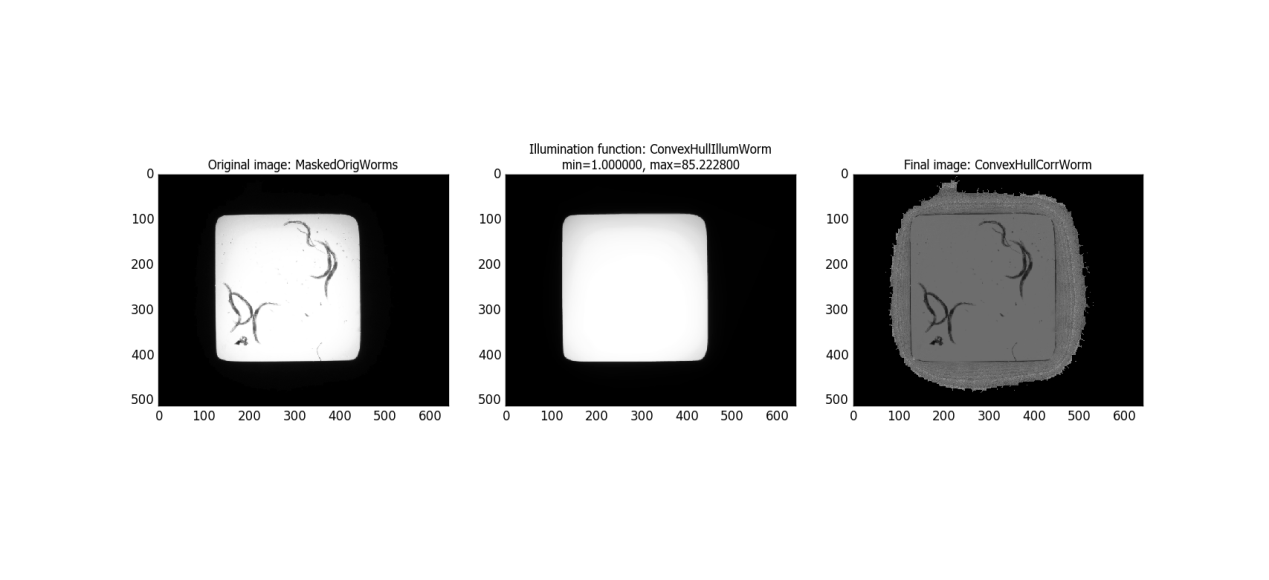
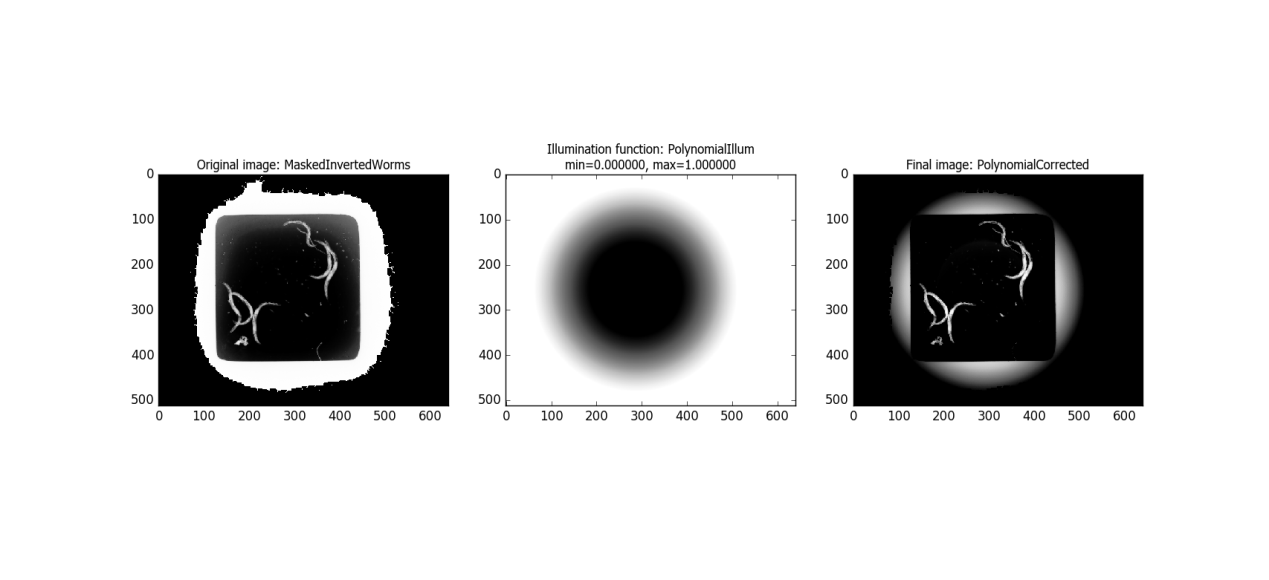
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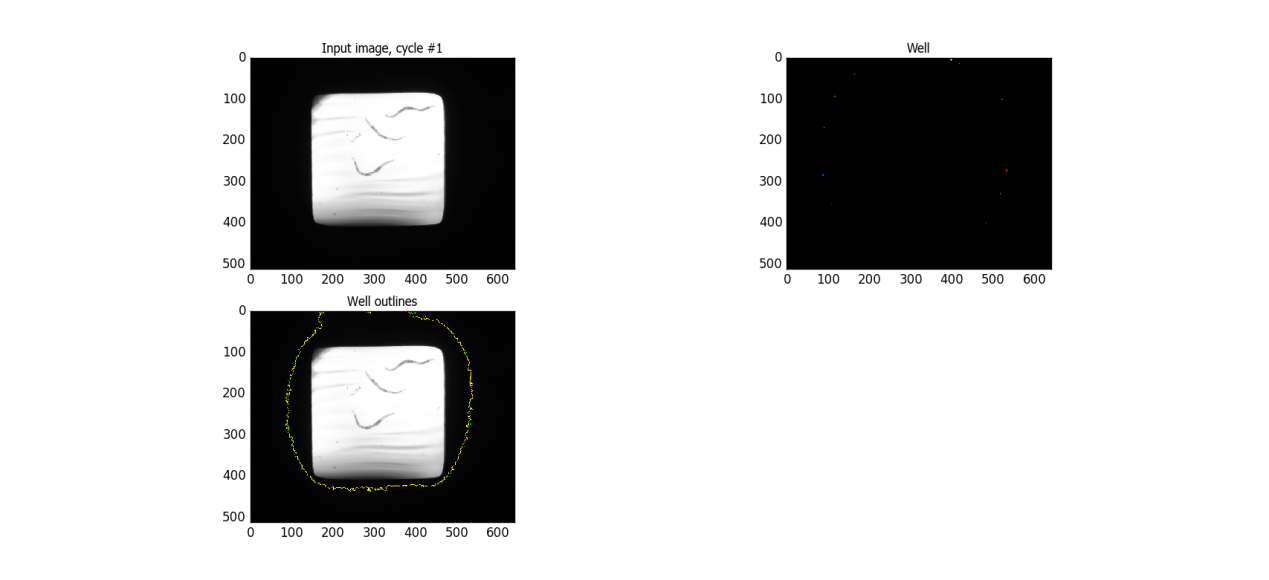
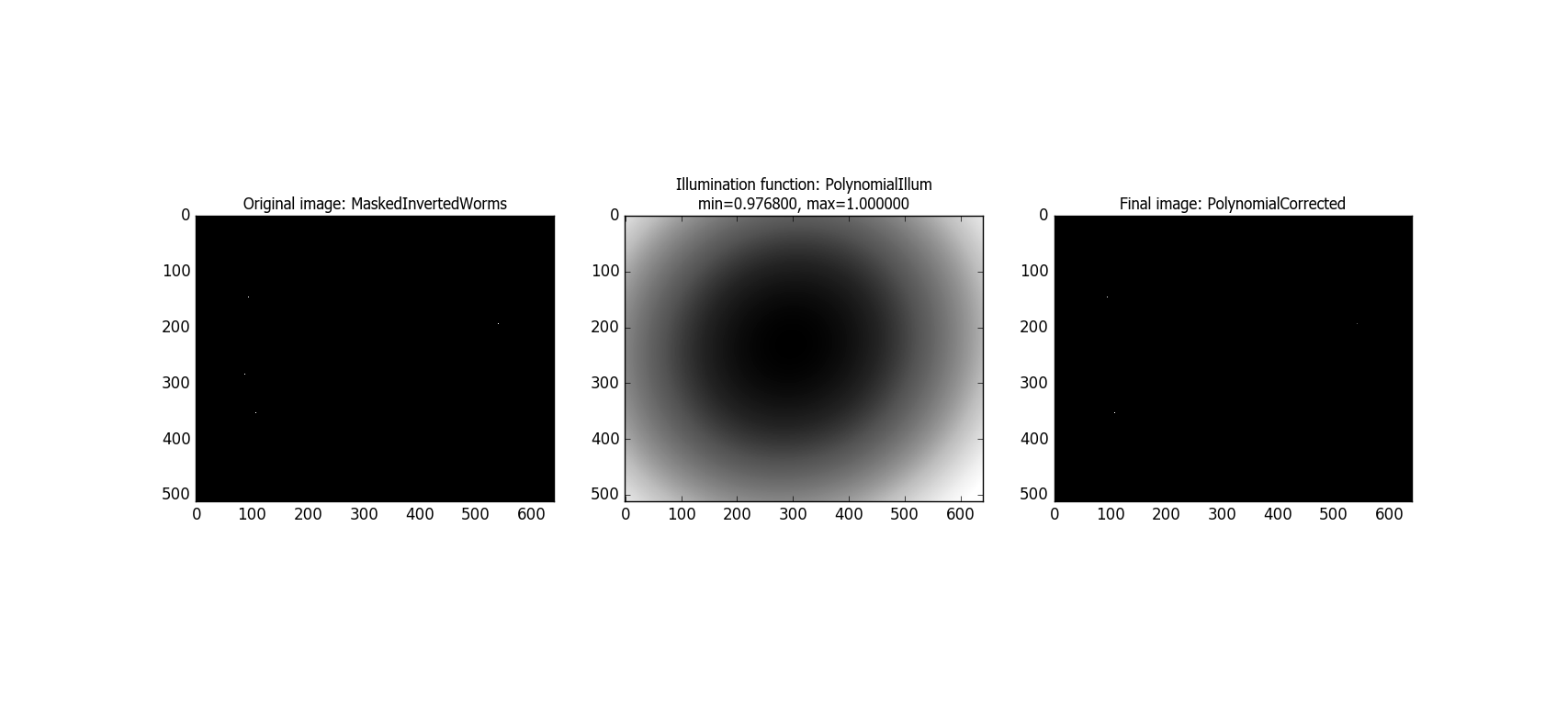
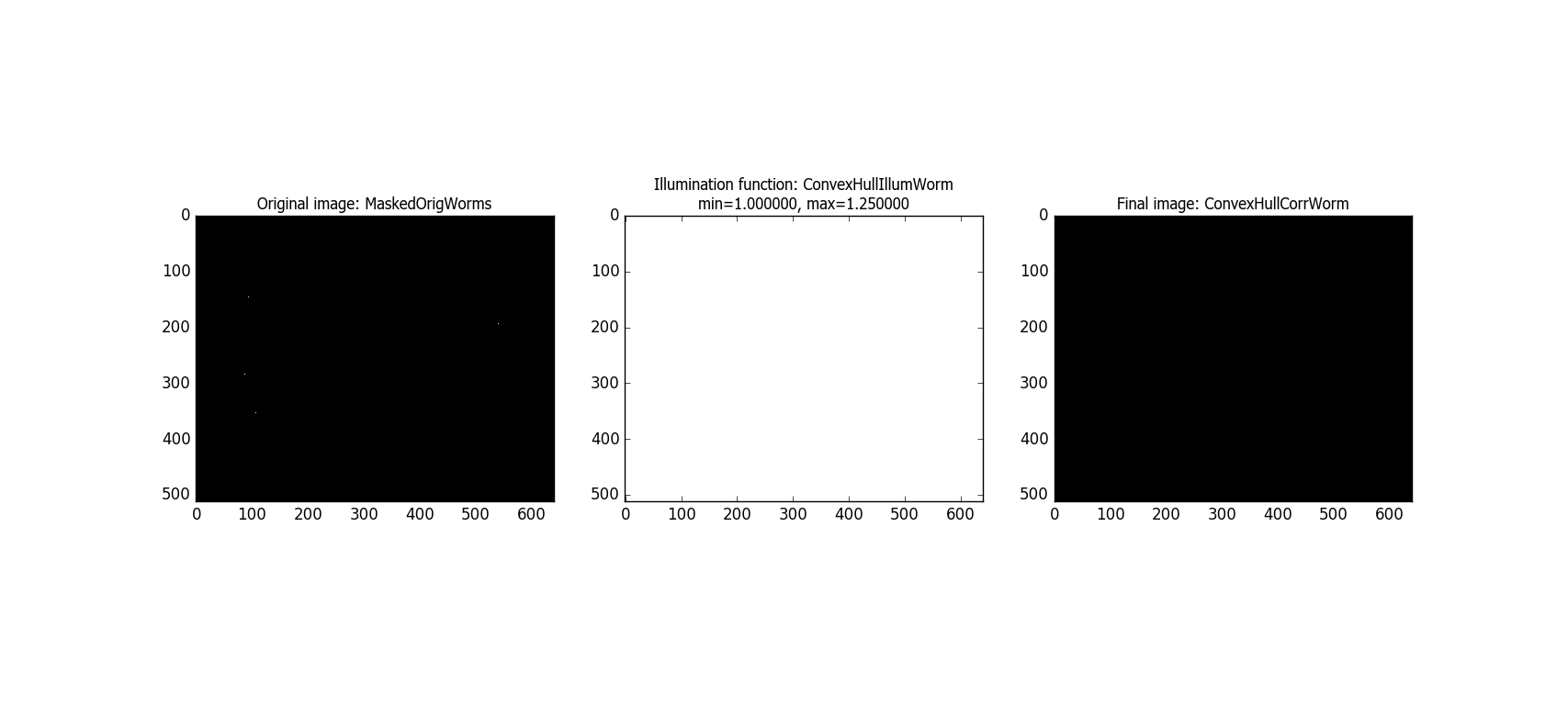
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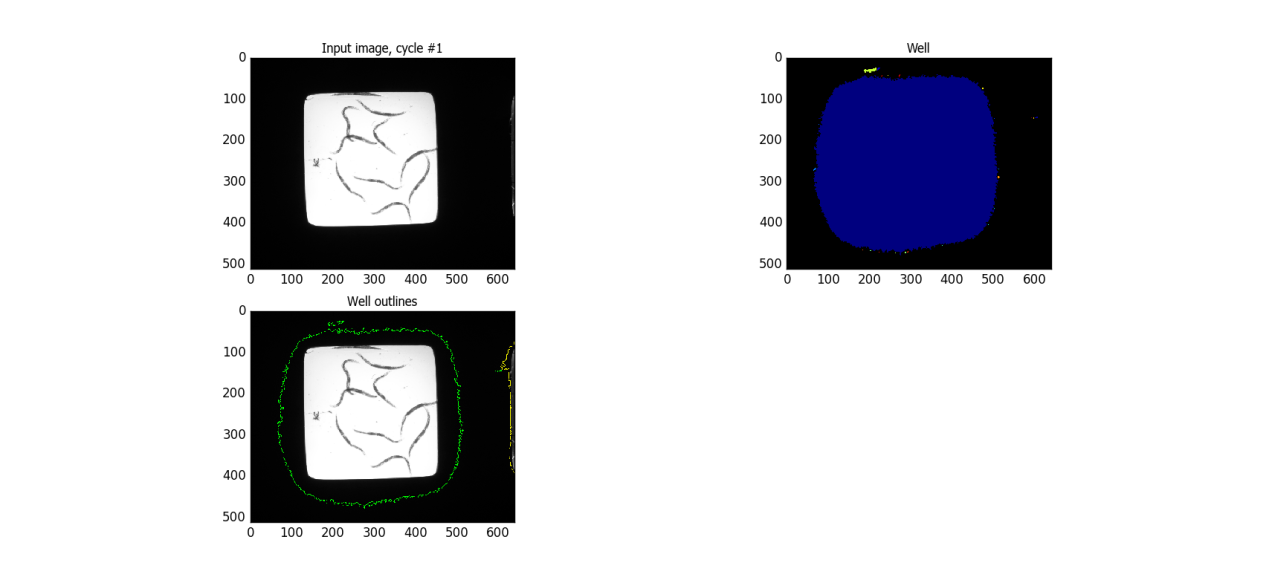
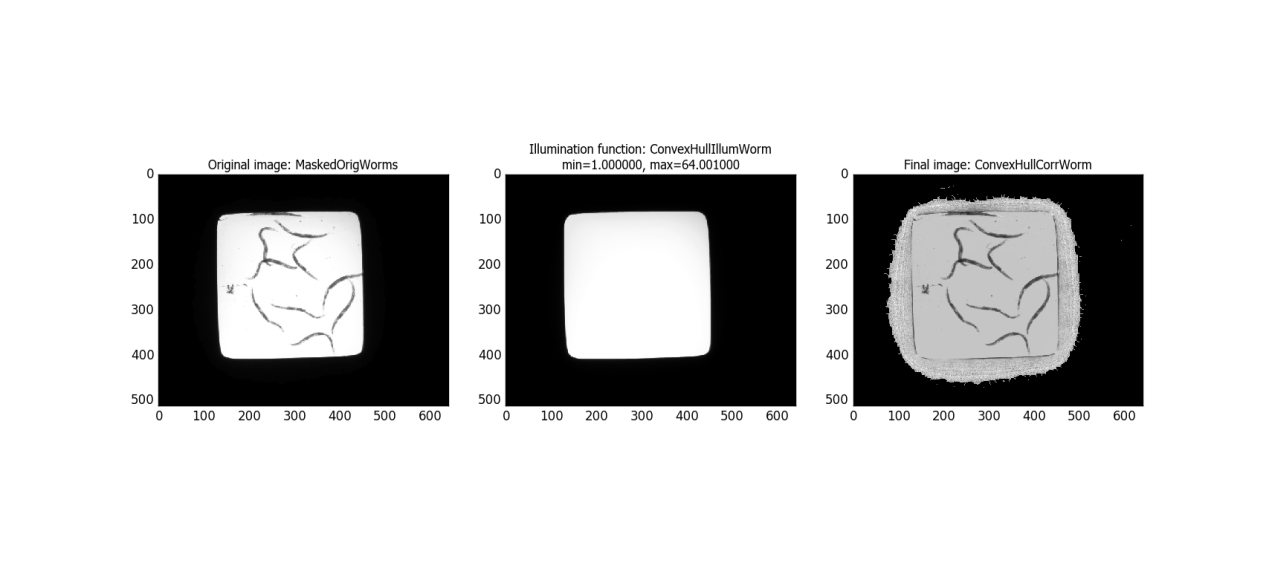
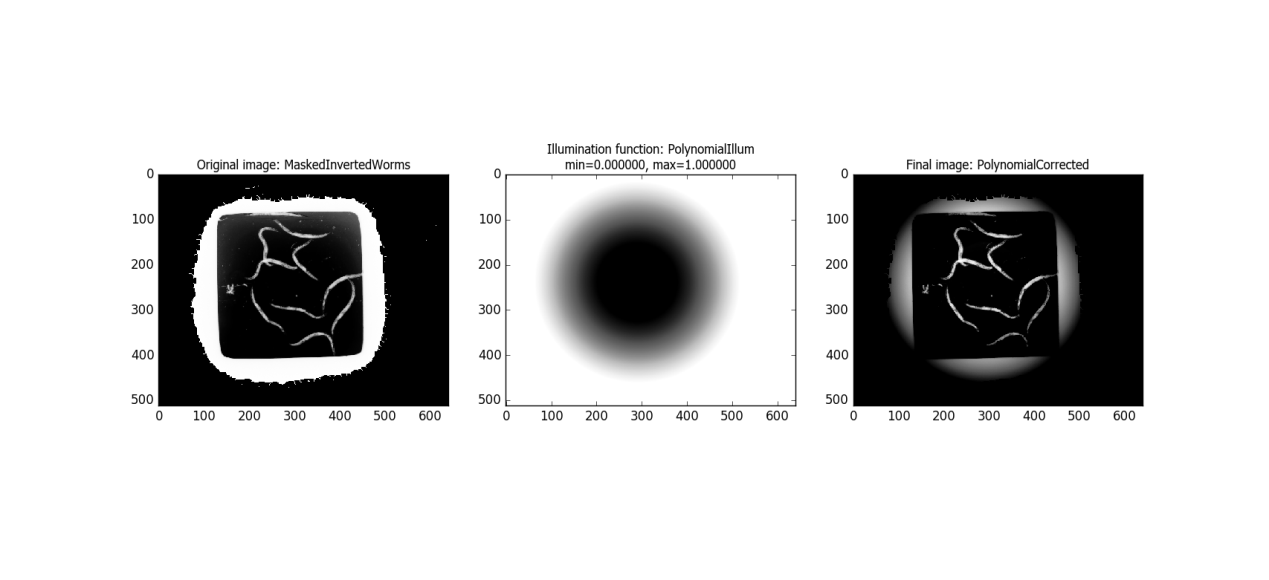
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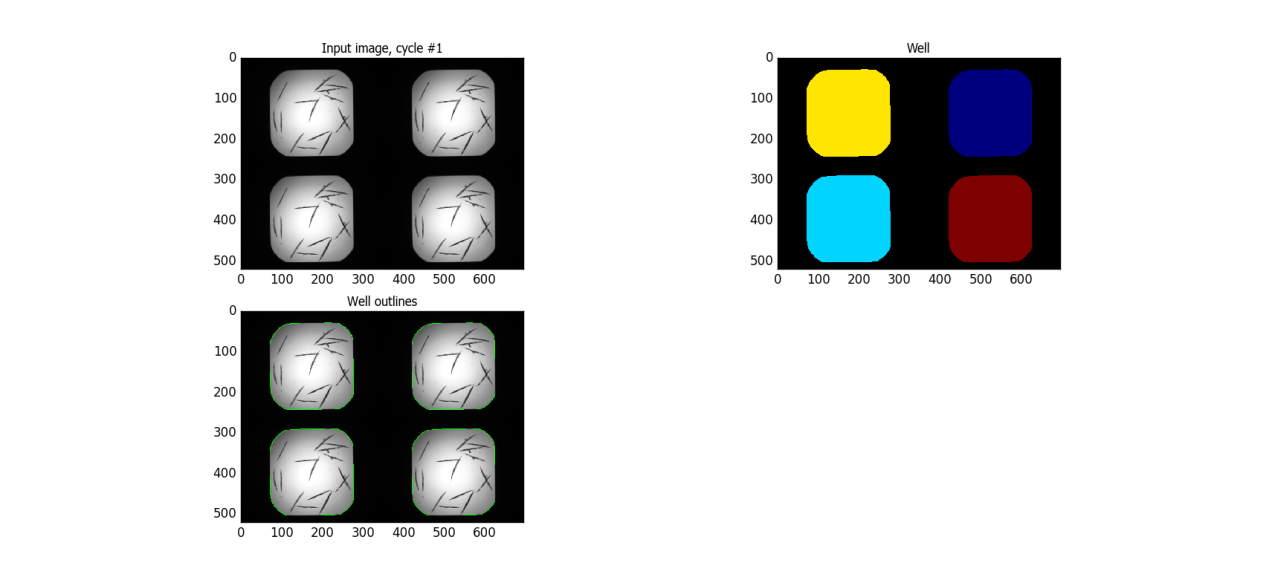
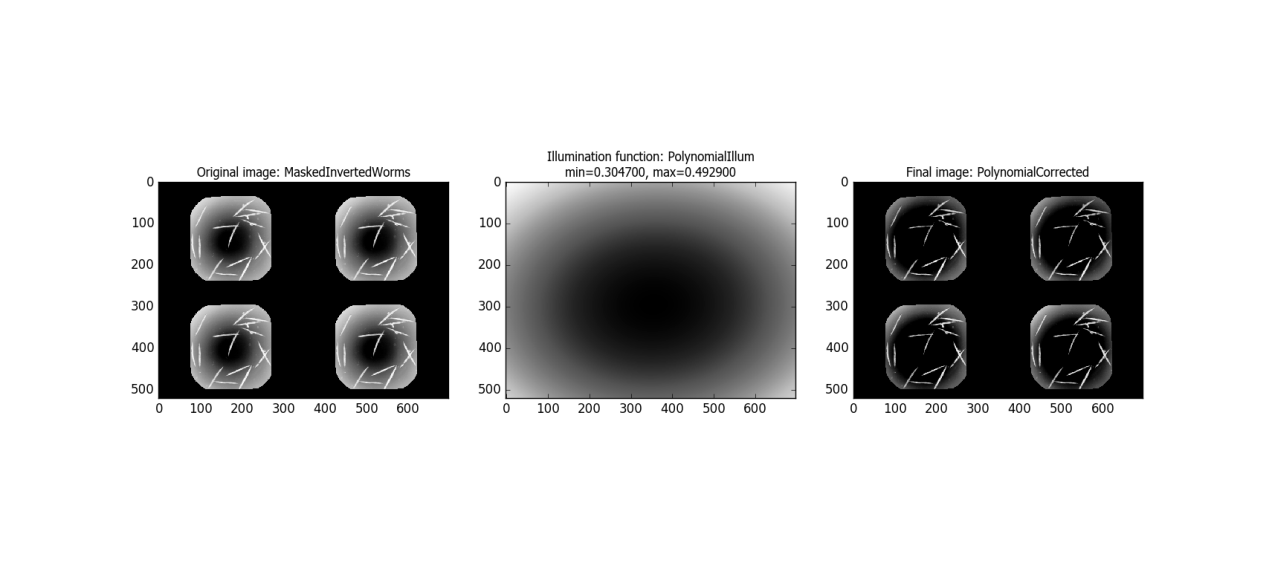
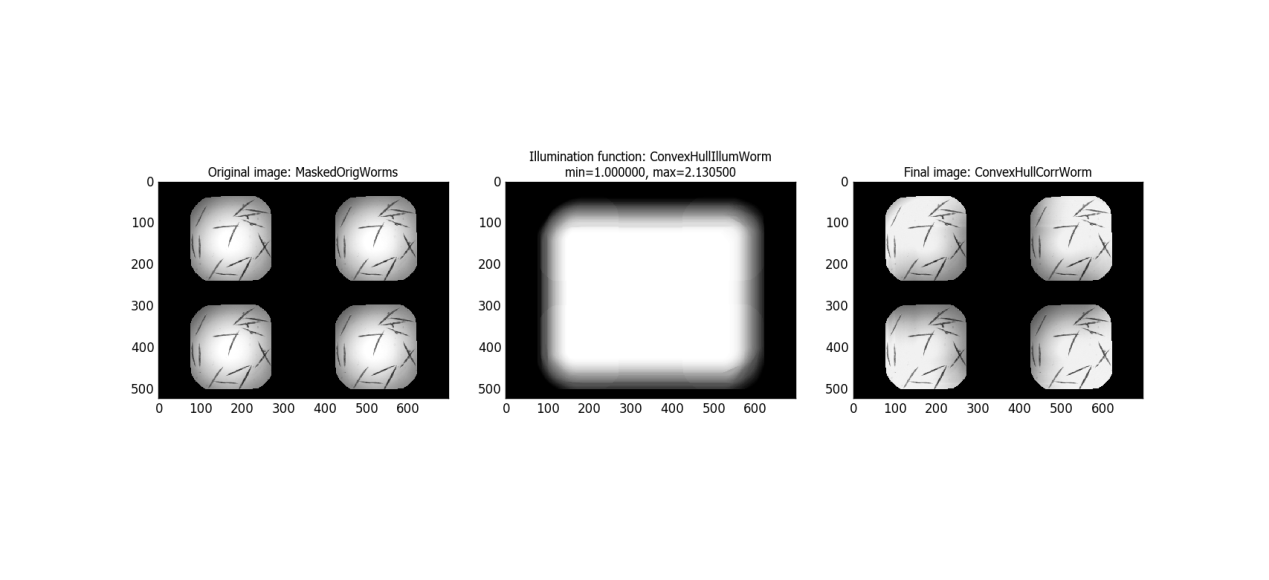
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F

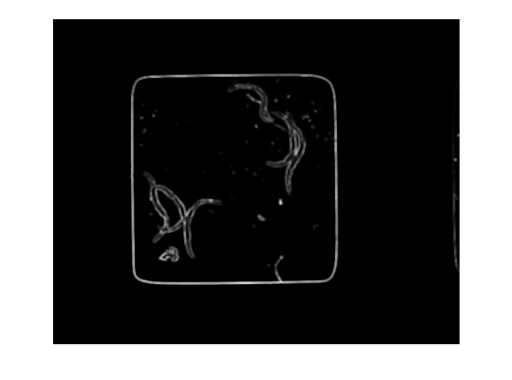
G

**S1 Figure.** The uneven illumination correction results of the WormToolbox of Cell Profiler. Each panel is an independent image and test. In each panel, the first image is the original image, the second image is the detected well region, the third image is the labeled well outlines, and the following images are the extracted illumination functions and corrected results by supplied two methods (illumination correction based on polynomial method and convex hull method, respectively).

Original image Contrast values Segmented image

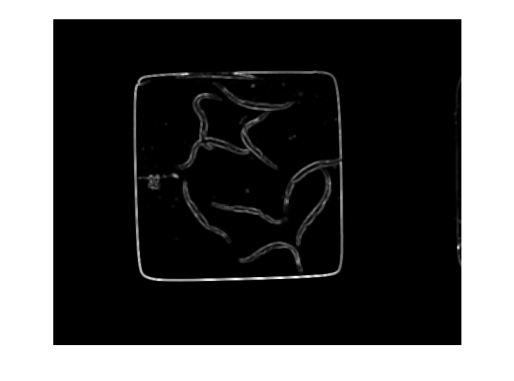
A

B

C

D

**S2 Figure.** The segmentation results of other multi-well plate uneven illumination images by our method. Each panel is one independent image and test.