S2 Figure

Data Management

Compounds

CAS, molecular weight, solubility, safety, classification

Plate map and blinding key

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Images

Raw .tiff files of chemotaxis endpoints

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Metadata

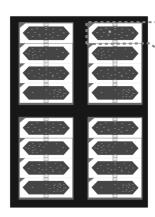Plate ID, image ID, compound, strain, chemotaxis start/ stop, temp, humidity, etc.

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Image Analysis Results
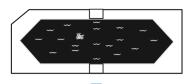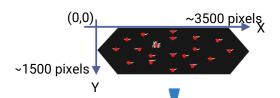
Worm location files
Summary file

Image Analysis

1. Import Image

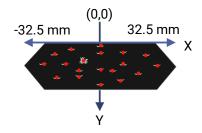**2. Mask and Crop**

3. Apply Threshold and Binarize

4. Detect and Locate Objects

(0,0)   ~3500 pixels   X

~1500 pixels   Y

5. Convert Units of Measurement

(0,0)

-32.5 mm   32.5 mm   X

Y

6. Export Data

Worm locations for each arena are exported as Comma Separated Values files

Data Analysis and Visualization