

AdipoFIJI (rev0.67) – Setup and Usage Guide

Overview

AdipoFIJI is an ImageJ (FIJI) macro script designed for automated segmentation and measurement of adipocytes in histological images. It processes batches of images using a 10-step folder-based pipeline to output quantifiable data and annotated images.

Prerequisites

- FIJI (ImageJ) – installed and up to date
- Java (included with most FIJI distributions)
- Download and extract AdipoFIJI_rev0.67.rar from:
github.com/MichaelBAnderson/Bioinformatics-AdipoFIJI

Folder Structure

After extraction, your directory should be organized as follows:

AdipoFIJI_rev0.67/

```
|—Image Processing/
| |—Folder_01_(input)/      # Place input images here
| |—Folder_02/              # Threshold output (level 1)
| |—Folder_03/              # Threshold output (level 2)
| |—Folder_04/              # Threshold output (level 3)
| |—Folder_05/              # Threshold output (level 4)
| |—Folder_06/              # Mask compilation
| |—Folder_07/              # Image Calculator step
| |—Folder_08/              # Final mask outlines
| |—Folder_09_(scoring)/    # Output for scoring (original + outlines)
| |—Folder_10_(data)/       # Output measurement CSV files
|—Reset Folders/
| |—Folder_01_(input)/
| |—Folder_02/
| |—Folder_03/
| |—Folder_04/
| |—Folder_05/
| |—Folder_06/
| |—Folder_07/
| |—Folder_08/
| |—Folder_09_(scoring)/
| |—Folder_10_(data)/
|—Script/
|—previous versions/
```

How to Run AdipoFIJI

1. Launch FIJI

Open the FIJI (ImageJ) application.

2. Open a New Script Window

File → New → Script...

3. Load the AdipoFIJI Script

File → Open... → Select "AdipoFIJI_(rev0.67).ijm"

4. Prepare and Run

Maximize the script window to reveal the Run button.

Click Run to start the process and select the paths to each of the 10 folders in the Image Processing directory when prompted.

Post-Processing Instructions

Once the script completes, all results—including processed images and CSV measurement files—will be saved to:

- Folder_09_(scoring): annotated image outputs
- Folder_10_(data): measurement results (e.g., area, count)

Important:

After each run, copy the contents of Folder_10_(data) to a separate location to prevent overwriting or merging of data in future runs.

Resetting for the Next Run

To start fresh:

1. Delete all contents in the Image Processing folders.
2. Copy the entire contents of Reset Folders into Image Processing.

Acknowledgments

If this tool contributes to your research or publications, please acknowledge its use by citing the author.

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