# Cell-ACDC

A GUI-based framework for **segmentation**, **tracking** and **cell cycle annotations** of microscopy imaging data. It includes two of the latest deep learning methods, [Cellpose](https://cellpose.readthedocs.io/en/latest/) and [YeaZ](https://github.com/lpbsscientist/YeaZ-GUI).

*Written in Python 3 by Francesco Padovani and Benedikt Mairhoermann.*

Checkout our paper here.

# Installation

1. Download the latest release from [here](https://github.com/SchmollerLab/Cell_ACDC/releases).
2. If you don’t already have Python or Anaconda, download and install Miniconda for Python 3.8 [here](https://docs.conda.io/en/latest/miniconda.html). We recommend using Anaconda even you already have Python.
3. Follow the instructions below specific to your OS

## Installing on Windows 10 using Miniconda or Anaconda

1. Unzip the latest release you downloaded before. For this example, I will assume it was unzipped into C:\Users\Frank
2. Open the Anaconda Prompt (you should be able to find it from the search bar)
3. Navigate to the folder where you unzipped Cell\_ACDC, (in this example it is C:\Users\Frank\Cell\_ACDC) by typing cd “C:\Users\Frank\Cell\_ACDC”. Press “Enter” to confirm.

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1. Now type the following commands one at the time (press “Enter” after each command and type “Y” when requested):

conda update -n base -c defaults conda

conda clean --all

conda env create --file acdc.yml

Anaconda will create the environment with Python 3.8 and all the packages required. This step can take several minutes (about 20 minutes if I have to guess, but it depends on your internet connection speed). If successful your terminal should now look like this:

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