

Analysis of Multidimensional Microscopy Data Using Cell-ACDC

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URL

jove.com/video/68954

Materials

Name	Company	Catalog Number	Comments
BABY	Julian Pietsch	10.7554/eLife.79812	Segmentation and tracking software, optional, can be automatically installed with Cell-ACDC
Bayesian tracker	Kristina Ulicna	10.3389/fcomp.2021.734559	Tracking software, optional, can be automatically installed with Cell-ACDC
Cell-ACDC	Francesco Padovani	10.1186/s12915-022-01372-6	Software
Cellpose germline Nuclei	Cristina Piñeiro López / Ana Rita Rodrigues Neves / Ivana Čavka	10.17912/MICROPUB.BIOLOGY.001062	Segmentation software, optional, can be automatically installed with Cell-ACDC
Cellpose version 2	Carsen Stringer	10.1038/s41592-020-01018-x	Segmentation software, optional, can be automatically installed with Cell-ACDC
Cellpose version 3	Carsen Stringer	10.1038/s41592-025-02595-5	Segmentation software, optional, can be automatically installed with Cell-ACDC
Cellpose version 4 (Cellpose-SAM)	Marius Pachitariu	10.1101/2025.04.28.651001	Segmentation software, optional, can be automatically installed with Cell-ACDC
Computer	-	-	See recommended specifications below
Computer - CPU	Any	-	Recommended minimum 4 Cores, 2.5Ghz
Computer - GPU	Nvidia (preferred)	-	(Optional) Recommended minimum 8GB VRAM
Computer - Hard drive space	Any	-	4GB + 3 x microscopy file size
Computer - Operating System	Microsoft, Apple, others	-	Windows, MacOS and Linux are supported
Computer - RAM	Any	-	3 x file size of single position, minimum 16GB

DeepSea	Abolfazl Zargari	10.1016/j.crmeth.2023.100500	Segmentation and tracking software, optional, can be automatically installed with Cell-ACDC
DeLTA	Jean-Baptiste Lugagne / Owen M. O'Connor	10.1101/720615 / 10.1371/journal.pcbi.1009797	Segmentation and tracking software, optional, can be automatically installed with Cell-ACDC
InstanSeg	Thibaut Goldsborough	10.48550/arXiv.2408.15954	Segmentation software, optional, can be automatically installed with Cell-ACDC
Miniforge	conda-forge	-	Link to download the installer from the Miniforge website: https://conda-forge.org/download/
Omnipose	Kevin Cutler	10.1038/s41592-022-01639-4	Segmentation software, optional, can be automatically installed with Cell-ACDC
pomBseen	Makoto Ohira	10.1371/journal.pone.0291391	Segmentation software, optional, can be automatically installed with Cell-ACDC
SAM (Segment Anything Model)	Alexander Kirillov	10.48550/arXiv.2304.02643	Segmentation software, optional, can be automatically installed with Cell-ACDC
StarDist	Uwe Schmidt / Martin Weigert	10.1007/978-3-030-00934-2_30 / 10.1109/WACV45572.2020.9093435 / 10.1109/ISBIC56247.2022.9854534	Segmentation software, optional, can be automatically installed with Cell-ACDC
TAPIR	Carl Doersch	10.48550/arXiv.2306.08637	Tracking software, optional, can be automatically installed with Cell-ACDC
Trackastra	Benjamin Gallusser	https://doi.org/10.48550/arXiv.2405.1570	Tracking software, optional, can be automatically installed with Cell-ACDC
Trackpy	Daniel Allan	10.5281/zenodo.1213240	Tracking software, optional, can be automatically installed with Cell-ACDC
YeastMate	David Bunk	10.1093/bioinformatics/btac107	Segmentation software, optional, can be automatically installed with Cell-ACDC
YeaZ	Nicola Dietler	10.1038/s41467-020-19557-4	Segmentation and tracking software, optional, can be automatically installed with Cell-ACDC