Table 1. Open-source tools for deep learning in bioimaging.

Tool	Reference	URL	Type	Use-case	Prerequisites
CellProfiler	(McQuin et al., 2018)	cellprofiler.org	GUI-based standalone general bioimage analysis software.	Inference with pre-trained models and model training from existing ground truth for classification.	None.
ilastik	(Berg et al., 2019)	ilastik.org	GUI-based standalone general bioimage analysis software.	Inference with pre-trained models (fully supported) and model training from scratch (debug mode) for segmentation.	None.
DeepImageJ	(Gomez-de-Mariscal et al., 2019)	deepimagej.github.io	ImageJ/Fiji plug-in enabling the use of pre-trained DL-based bioimage analysis algorithms.	Inference with pre-trained models for various tasks.	Experience with Fiji/ImageJ.
ImJoy	(Ouyang et al., 2019)	imjoy.io	Online computing platform for deploying DL bioimage analysis pipelines.	Inference with pre-trained models and model training from existing ground truth for various tasks.	None.
ZeroCostDL4Mic	(von Chamier et al., 2021)	github.com/HenriquesLab/ZeroCostDL4Mic/wiki	Google Colab Python notebooks implementing DL-based bioimage analysis algorithms.	Inference with pre-trained models and model training from existing ground truth for various tasks.	None.
Bioimage Model Zoo	N.A.	bioimage.io	Community-driven online repository facilitating reuse and access to pre-trained DL models.	Retrieve models architecture for various tasks, along with pre-trained weights.	Dependent on the considered model.
CSBDeep	N.A.	csbdeep.bioimagecomputing.com	Python DL toolbox for general bioimage analysis.	Model training from existing ground truth for image restoration.	Experience with Python.

N.A., not applicable.