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Materials List for

Automated Analysis of *C. elegans* Fluorescence Images using SegElegans

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Materials

Name	Company	Catalog Number	Comments
Computer with internet access (example: Dell Vostro Desktop)	Several (Dell for example)	-	This will allow running SegElegans online via cloud computing as recommended and using image analysis software such as ImageJ.
CUDA compatible Graphics Processing Unit with at least 6 GB of VRAM (example: MSI Geforce RTX RTX3050 Ventus 2X 6GB) (Optional)	NVIDIA + several manufacturers (Micro Star International for example)	https://developer.nvidia.com/cuda-gpus	This will allow running SegElegans offline on a local machine. CUDA compatible GPU chipsets can be found here: https://developer.nvidia.com/cuda-gpus The VRAM is dependent on the actual implementation of the chipset into a GPU by the manufacturer. WARNING: You will need an expensive and powerful CUDA card far past the minimum requirements (16+ GB VRAM) to match the performance achieved by the cloud computing version.
Epifluorescence Microscope (Invitrogen EVOS FL Auto 2)	ThermoFisher Scientific	AMAFD2000 for example	We recommend using a system that can automatically acquire images from both brightfield and one or more fluorescence channels almost simultaneously.
ImageJ (Optional)	NIH	https://imagej.net/software/fiji/downloads	We recommend the Fiji distribution, available here: https://imagej.net/software/fiji/downloads
PC with NVIDIA GPU compatibility (example: Dell Vostro Desktop) (Optional)	Several (Dell for example)	-	This is needed in conjunction with the GPU for running SegElegans offline on a local machine. A GPU will require Windows compatible hardware with the appropriate PCI slots on the motherboard, room to fit the card and a sufficiently powerful power supply.

SegElegans	-	https://github.com/KonstantinosKounakis/SegEleganSOnline/tree/v1.0	See manuscript for full instructions.