Tracing Cell Lineages in Videos of Lens-free Microscopy

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Highlights

- We propose a framework for cell lineage tracing in lens-free microscopy.
- Fully convolutional networks trained to regress a probability map for cell detection.
- A probabilistic model based on moral lineage tracing explicitly handles redundant detections.
- Evaluation on 3 manually annotated sequences and on 16 fluorescence-annotated sequences.