

Supplementary Material to Bionic Tracking:
Using Eye Tracking to Track Biological Cells in
Virtual Reality

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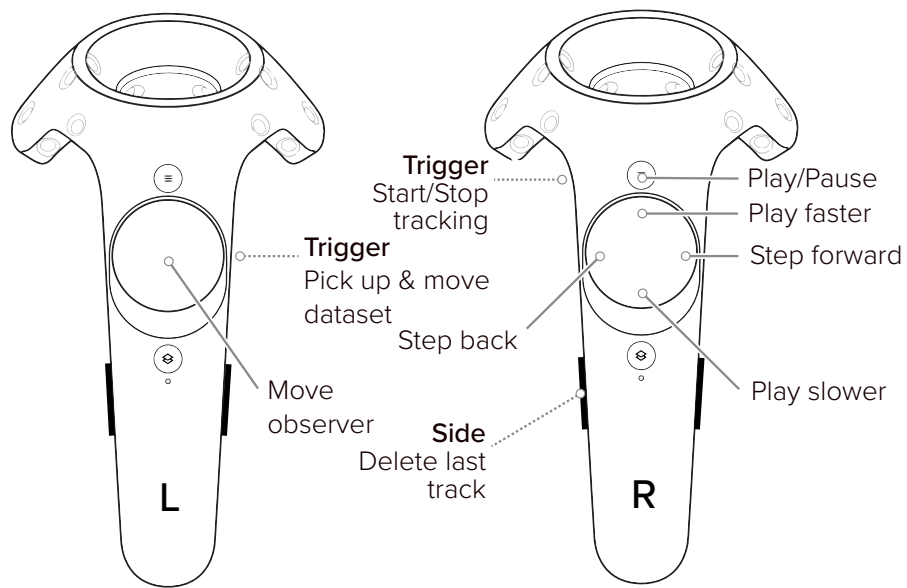


Figure 1: Controller bindings for Bionic Tracking. Handedness can be swapped.

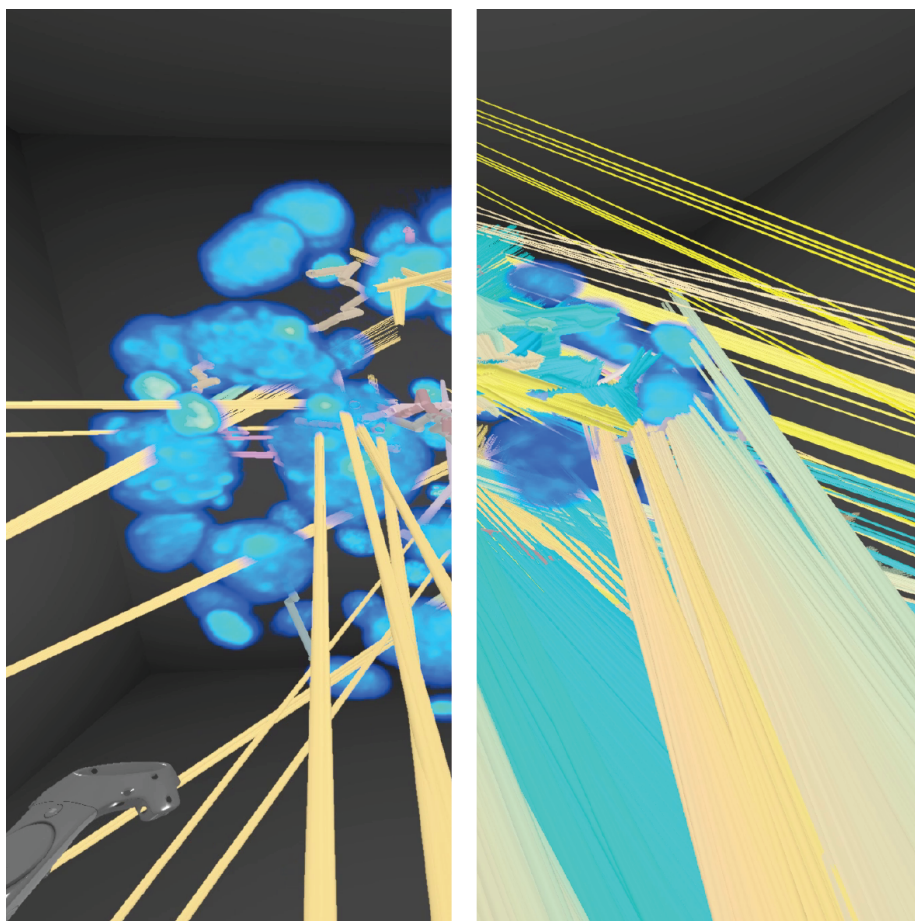


Figure 2: Left: Partial hedgehogs (sets of rays of samples through the volume for one cell track) for a single time point of the *Platynereis* dataset, after creating 18 cell tracks. Right: Full hedgehogs for all timepoints after creating tracks for 18 cells. Color coded by time, yellow is early, blue late along the time of the dataset. See the supplementary video for a dynamic demonstration and the main text for details.

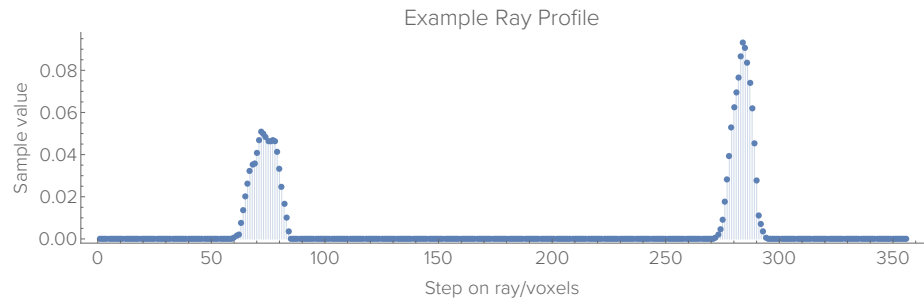


Figure 3: An example intensity value profile along an entire spine/ray through a volumetric dataset. The X axis is step along the spine in voxels, the Y axis volume sample value. In this case, there are two local maxima along the ray, one close to the observer, at index 70, and another one further away at 284. The profile was taken along the gray line shown in Figure 2 of the main text.

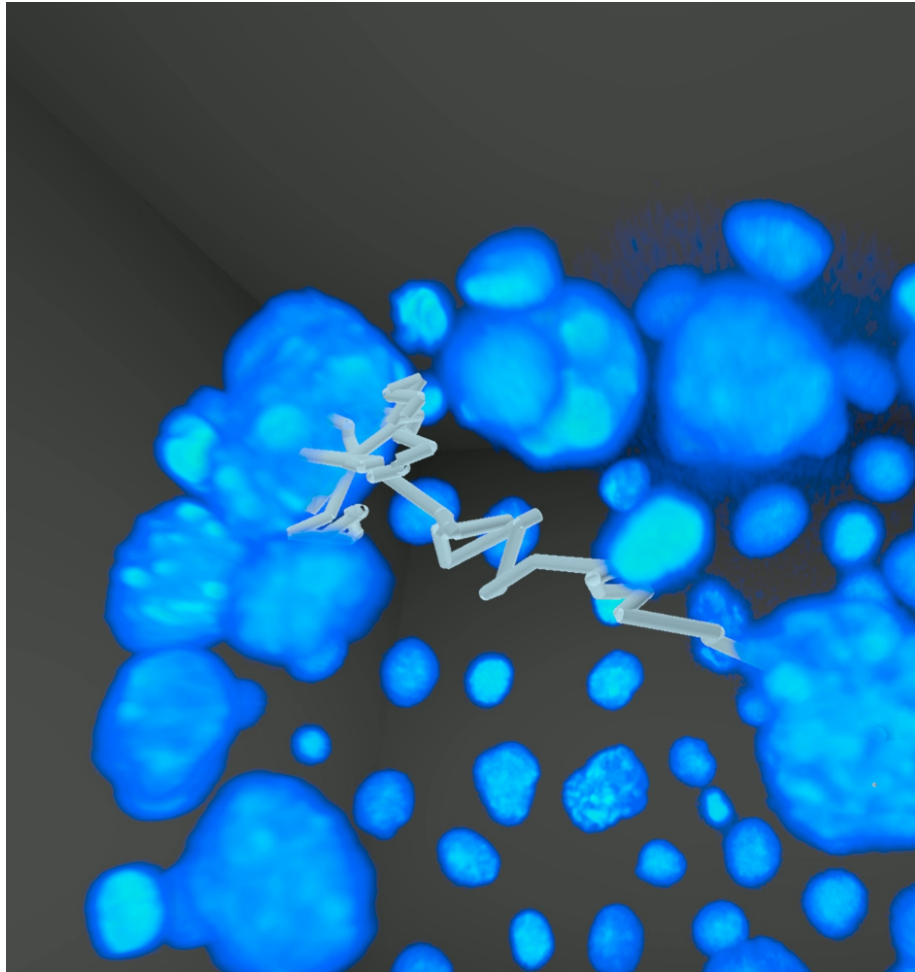


Figure 4: Visualization of a cell track created in the *Platynereis* dataset. See the companion video for the tracking process over time.

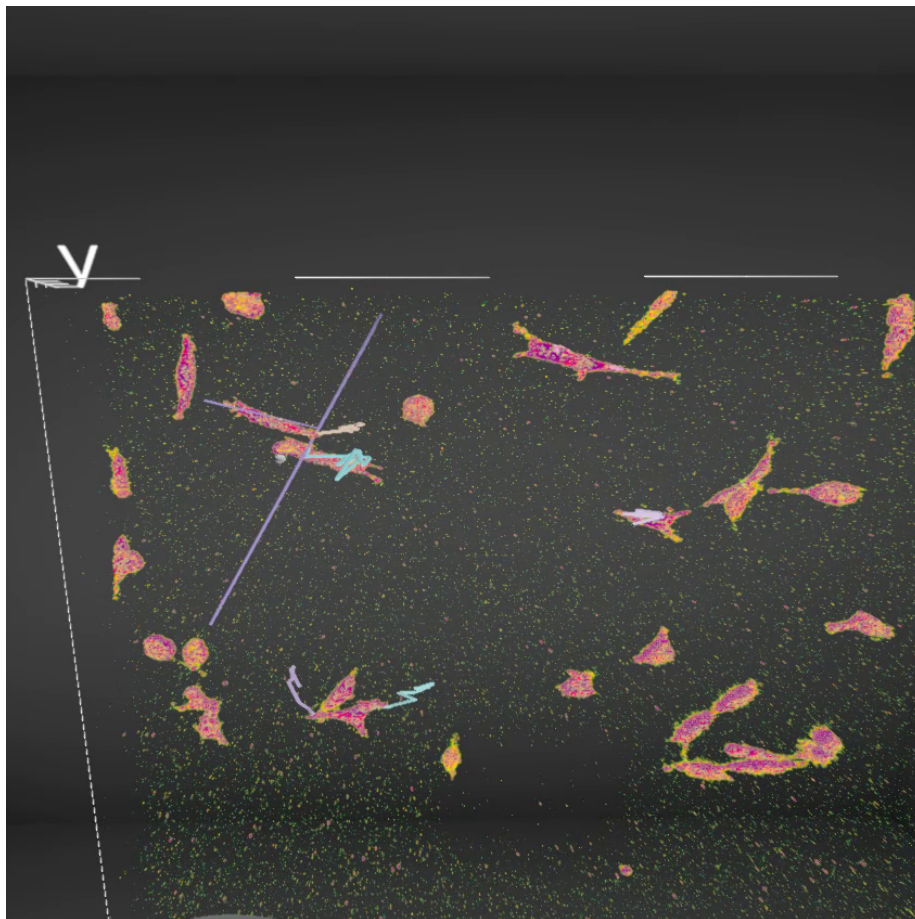


Figure 5: Cell tracks created by Bionic Tracking in the MDA231 dataset, with a single spine used for creating a track shown at the top left in purple.