

The figure consists of a large grayscale micrograph at the top and a grid of smaller images below it. The large micrograph shows a textured surface with a scale bar labeled '100µm'. The grid below contains 50 small images arranged in 5 rows and 10 columns. These images show various stages of a biological process, likely related to the formation of a biofilm or the development of a microorganism. The images show different morphologies, including elongated, curved, and branched structures, as well as some that appear to be clusters or aggregates. The background of the grid is dark, and the structures are light gray or white.

Figure 1 Structural models of the BicD2-Nup358 complex. (a) Ribbon diagram of the full-length complex. (b) Surface representation of the full-length complex. (c) Surface representation of the Nup358 subunit. (d) Ribbon diagram of the Nup358-BicD2 interface. (e) Surface representation of the Nup358-BicD2 interface. (f) Surface representation of the Nup358-BicD2 interface.

A BicD2 (green) and Nup358 (red) complex on a microtubule. Scale bar: 2 μ m.

B BicD2 (green) and Nup358 (red) complex on a microtubule. Scale bar: 2 μ m.

C BicD2 (green) and Nup358 (red) complex on a microtubule. Scale bar: 2 μ m.

D BicD2 (green) and Nup358 (red) complex on a microtubule. Scale bar: 2 μ m.

E Scatter plot of speed (μ m/s) versus run length (μ m) for BicD2. The mean speed is $0.4 \pm 0.18 \mu$ m/s (N=30).

F Scatter plot of normalized frequency versus run length (μ m) for BicD2. The mean run length is $4.1 \pm 0.06 \mu$ m (N=30).

G Western blot of BicD2 and Nup358. Molecular weight markers (kDa) are shown on the left. BicD2 is detected with anti-BicD2 antibody (lane 1) and anti-Nup358 antibody (lane 2). HC and LC are heavy and light chains of the antibody.

H Western blot of BicD2 and Nup358. Molecular weight markers (kDa) are shown on the left. BicD2 is detected with anti-BicD2 antibody (lane 1) and anti-Nup358 antibody (lane 2).

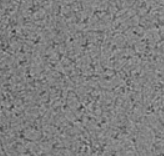


Fig. 5. Representative cryo-electron micrograph of a complex assembled from the full-length kinesin-1 heavy chain and a BicD2 fragment, collected by the PI with the Glacios cryo-TEM at NYSBC.