

FtsZ

FtsZ is a tubulin-like protein found in all bacteria that plays a key role in bacterial cell division. It forms protofilaments and assembles into a GTP-driven contractile ring, known as the Z-ring, at the site of cell division (mid-cell) to drive cytokinesis. A high-resolution structure of a bacterial FtsZ fiber still remains elusive. After determining the crystal structure of monomeric GDP-bound FtsZ from the radiation-resistant organism, *D. radiodurans*, our goal was to shed light on the GTP-induced fiber formation and the possible interactions between adjacent fibers in protofilaments, by determining the high-resolution structure of FtsZ fibers by cryo-electron microscopy. On Aug.30th and Sept.1st 2021, we collected 3454 images over 70 squares with a tilt axis of 35 degrees. Data processing is still under way. Distinct 2D classes have been obtained displaying high resolution structural features and 3D model generation is in progress.