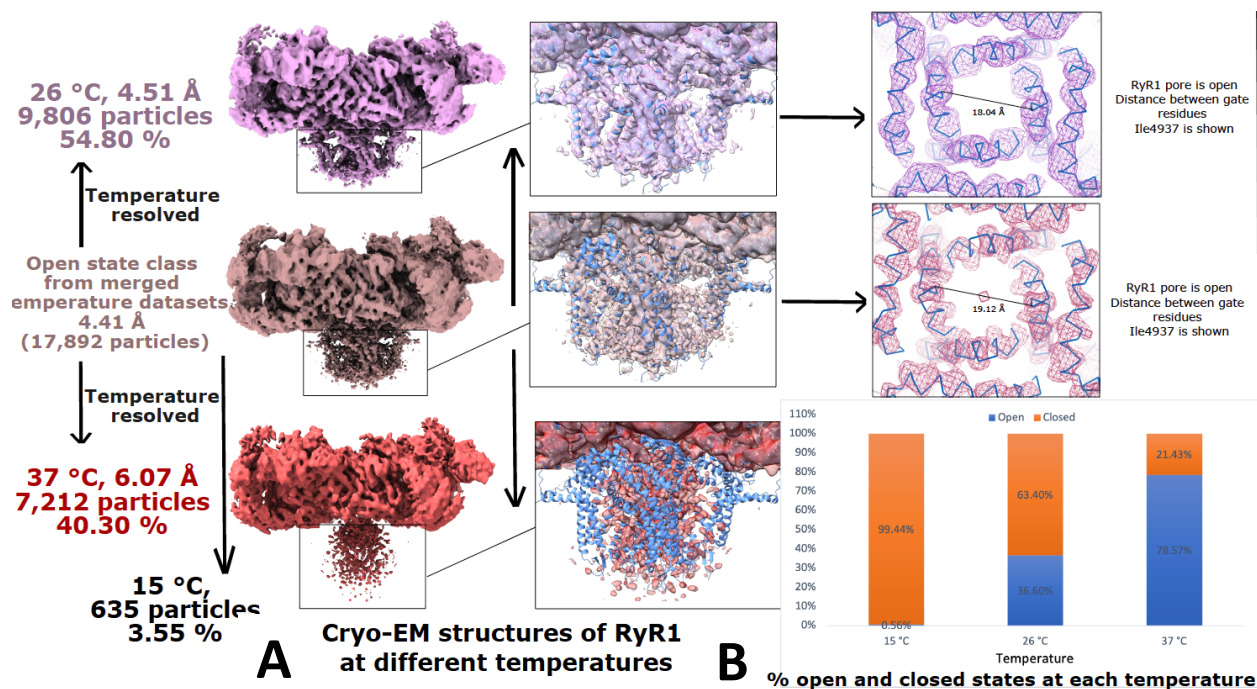


**Figure 1.** 2D class averages and 3D maps of detergent and liposome purified RyR1 respectively showing disordered (A) and intact (B) transmembrane (TM) region at high temperatures while retaining intact cytoplasmic shell. Zoomed in view of RyR1 pore region without liposome layer to show intact TM at 37 °C.



**Figure 2.** (A) Temperature resolved cryo-EM resolved open state of RyR1. (B) Percent particle contribution to open state of RyR1 increases with increasing temperature.