



**FIGURE:** Transmission electron micrograph of a porosome associated with a docked secretory vesicle at the apical end of a pancreatic acinar cell. (a) Part of the apical end of a pancreatic acinar cell demonstrating within the green bordered square, the presence of a porosome and a docked zymogen granule (ZG) fused at the porosome base via a fusion pore. ZG is the electron dense secretory vesicle of the exocrine pancreas. (Bar = 400 nm for a only). The area within the green square in a has been enlarged to show the apical microvilli (MV) and a section through porosome and the ZG. Note the ZG membrane (ZGM) bilayer is attached directly to the base of the porosome cup. A higher magnification of the porosome in c depicts in further detail the porosome bilayer and cross section through the three protein rings, with the thicker ring (blue arrowhead) present close to the opening of the porosome to the outside. The third and the lowest ring (probably representing SNARE rosette or ring) away from the porosome opening is connected to the ZGM to establishing the fusion pore (FP). (d) Yellow outline of the porosome (P) with a fusion pore (FP) established at its base resulting in continuity between the ZG and outside. The apical plasma membrane (PM) at the apical end of the pancreatic acinar cell facing the lumen (L), is shown. [*Biophys J.* 2003, 85:2035-2043].