Supplementary to

How Type II Diabetes Related Islet Amyloid Polypeptide Damages Lipid Bilayers

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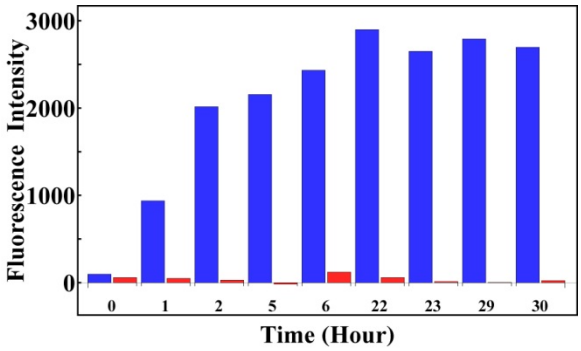
1. Thioflavin T (ThT) dye binding assay for fibril formation

The prepared (fibril) sample was mixed with ThT (2 μM) and its fluorescence was monitored by a spectrophotometer (Ocean Optics, Dunedin. FL).



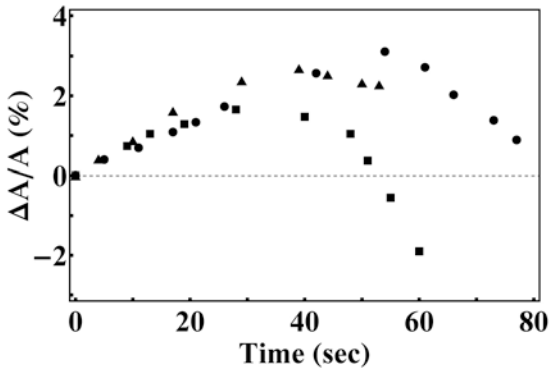
Blue bars are the fluorescence intensity of the test sample and red bars are the control (without hIAPP).

2. A movie for Figure 1 showing β-aggregates coming off the surface of a GUV.

Movie1.avi

3. hIAPP-induced GUV protrusion decrease was not by pore formation

To further prove that the hIAPP-induced GUV protrusion decrease was not by pore formation, we repeated the aspirated GUV experiment with both inside and outside of GUV in sucrose solutions. In this case, the protrusion length would not decrease (since there would be no net influx or efflux) if the effect of hIAPP were making pores [as shown in (46)], but the protrusion length did decrease.



GUV (7:3 DOPC/DOPG, plus 0.5 mol % Rh-DOPE) containing 200 mM sucrose exposed to 0.25 μM monomeric hIAPP in 199 mM sucrose and 1 mM Tris buffer (pH 7.0). The change of protrusion length is proportional to $\Delta A/A$. Different symbols represent different runs. The GUV ruptured after the last data point.