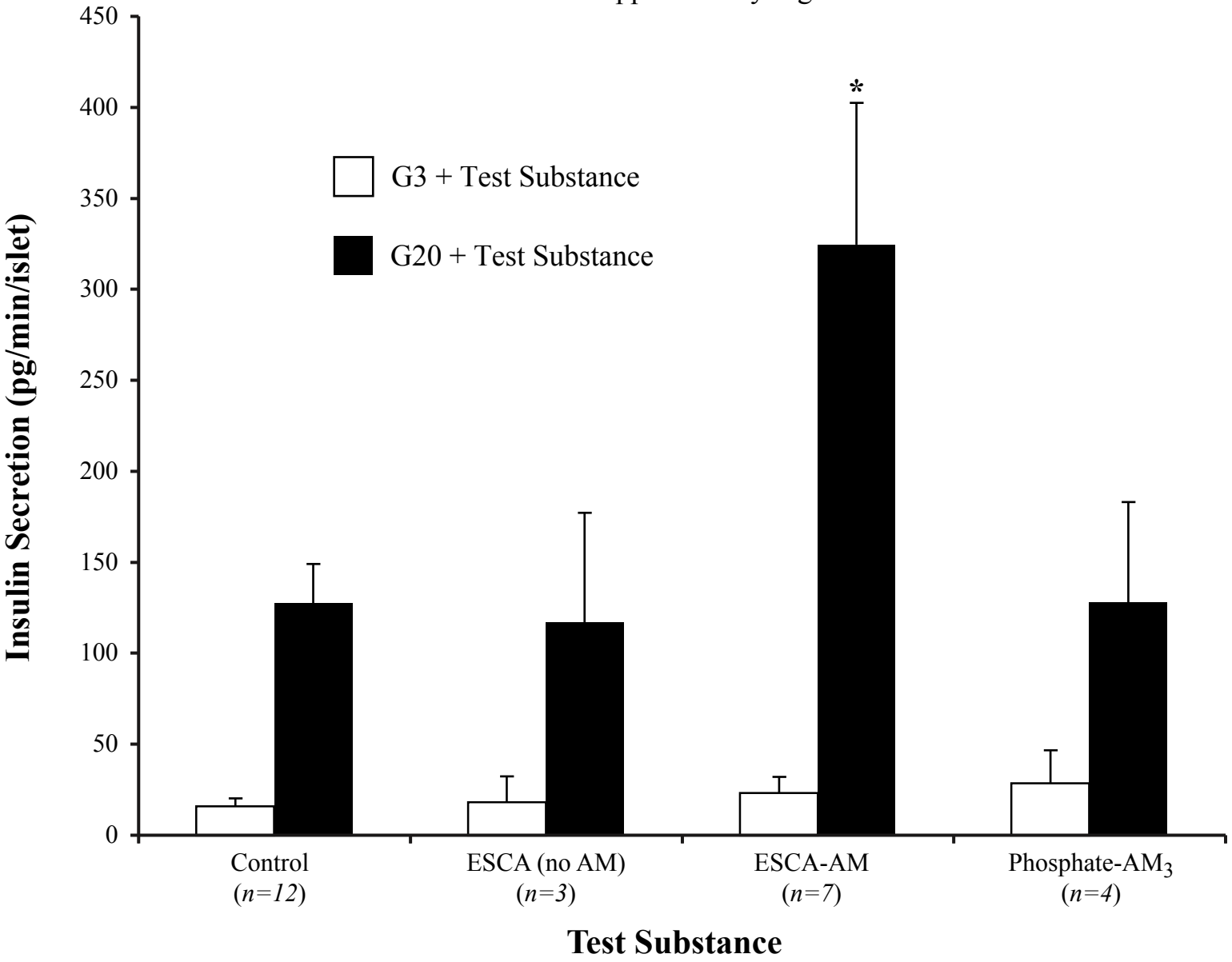
Supplementary Fig.1



Supplementary Figure: Chepurny and co-workers

FIGURE 1. Differential actions of the non-AM-ester and AM-ester forms of 8-pCPT-2'-*O*-Me-cAMP on insulin secretion from freshly isolated mouse islets. Islets were isolated from 16-24 weeks-old male C57BL6J mice (Jackson Laboratory, Bar Harbor, ME) fed *ad libitum*. Surgery to remove the pancreas was performed under anesthesia in compliance with NIH guidelines for the Care and Use of Laboratory Animals. After digestion of the pancreas in Liberase RI (Roche; 0.3 mg/ml), the islets were handpicked, placed on filters (~25 islets/filter), and perifused with KRBH (1 ml/min) containing 3 mM glucose as described (Kelley et al., *Am. J. Physiol.* 269, E575-582). Islets were then exposed to test substances dissolved in KRB containing 3 mM glucose, and the rate of insulin secretion was determined 10 min later by RIA (Linco). The KRB was then switched to a solution containing 20 mM glucose and the same test substances, and the rate of insulin secretion was measured 4-6 min later. Note that 10 μM of the AM-ester of 8-pCPT-2'-*O*-Me-cAMP (ESCA-AM) stimulated insulin secretion in the presence of 20 mM glucose but not 3 mM glucose, and that no such secretagogue action was measured using 10 μM of the non-AM-ester of this cAMP analog (ESCA), or 3.3 μM of phosphate-AM_3. Values are the mean ± SEM. * $p < 0.05$ by the Tukey-Kramer Multiple Comparisons Test.