

## Figures legend

**Supplemental Figure 1** Fasting plasma TG (A), TC (B) and representative hematoxylin and eosin staining of pancreas of normal control (white bars), type 2 diabetes group (black bars), metformin group (gray bars), 0.5g/kg APF group (spot bars) and 1g/kg APF group (grid bars) after treatment with APF 12 weeks. Values are means  $\pm$  SEMs, n=8-10 per group. \* $P<0.05$ , \*\* $P<0.01$  versus type 2 diabetes group.

**Supplemental Figure 2** Representative hematoxylin and eosin staining of livers from each group after treatment with APF 12 weeks.

**Supplemental Figure 3** Representative hematoxylin and eosin staining of epididymal fat from each group after treatment with APF 12 weeks.

**Supplemental Figure 4** Fasting plasma TG, NEFA (A), TC, LDL-C (B) and research protocol (C) of ob/ob group (black bars) and APF group (grid bars) after treatment with APF 13 weeks. Values are means  $\pm$  SEMs, n=8-16 per group. \* $P<0.05$ , \*\* $P<0.01$  versus ob/ob group.

**Supplemental Figure 5** Representative hematoxylin, eosin staining or Oil red O staining of pancreas and livers from each group after treatment with APF 16 weeks or APF+lepin 3 weeks.

**Supplemental Figure 6** Representative hematoxylin and eosin staining of epididymal fat and subcutaneous fat after treatment with APF 16 weeks or APF+lepin 3 weeks.