decreasing significantly the values of the glucose peaks and the area under the blood glucose-time curve (AUC) after glucose-loading in glucose tolerance test (OGTT) in both high-fat-diet-induced pre-diabetes IRF mice and KKAy mice, respectively. The pancreatic histopathological analysis showed that the increased islet amount, the enlarged islet area, and the lipid accumulation in the pancreas were reversed by FF16 treatment in both IRF mice and KKAy mice. In the palmitate-induced RINm5f cell model, FF16 could effectively reduce the apoptosis and enhance the glucose-stimulated insulin secretion, respectively. In conclusion, FF16 could improve the T2DM by protecting the pancreatic beta-cells.

Wang, N. and X. Yang (2011). "Chemical constitutents from pre-formulation of lonicerae japonicae flos in shuanghuanglian lyophilized powder for injection." *Zhongguo Zhong Yao Za Zhi* 36(12): 1613–1619.

OBJECTIVE: To research the chemical constitutents for the pre-formulation of *Lonicerae japonicae* Flos (the dried buds of *Lonicera japonica*) in Shuanghuanglian lyophilized powder for injection and provide substance foundation for the adverse reaction of Shuanghuanglian lyophilized powder for injection. METHOD: The chemical constituents were isolated by column chromatography and preparative HPLC. All structures were characterized by the spectroscopic methods including ESI-MS, 1H-NMR, 13C-NMR, and compared with data in the literature. RESULT: Twenty compounds were isolated and identified as sophoraricoside(1), luteolin-7-O-beta-D-glucopyranoside(2), rutin(3), quercetin(4), 3,5-*O*-dicaffeoyl quinic acid methyl ester(5), 4,5-*O*-dicaffeoyl quinic acid methyl ester(6), 3,4-*O*-dicaffeoyl quinic acid methyl ester(7), 4,5-dicaffeoyl quinic acid(8), 3,4-dicaffeoyl quinic acid(9), chlorogenic acid(10), epi-vogeloside (11), sweroside(12), vogeloside(13), secoxyloganin(14), macranthoidin A(15), macranthoidin B(16), loniceroside A(17), loniceroside B(18), loniceroside C(19), dipsacoside B(20). CONCLUSION: Compound 1 was identified in genus *Lonicera* for the first time and compounds 1–20 were isolated from the pre-formulation for the first time.

Wells, T. N. (2011). "Natural products as starting points for future anti-malarial therapies: Going back to our roots?" *Malar J* 10(Suppl 1):S3.

BACKGROUND: The discovery and development of new anti-malarials are at a crossroads. Fixed-dose artemisinin combination therapy is now being used to treat a hundred million children each year, with a cost as low as 30 cents per child, with cure rates of over 95%. However, as with all anti-infective strategies, this triumph brings with it the seeds of its own downfall, the emergence of resistance. It takes ten years to develop a new medicine. New classes of medicines to combat malaria, as a result of infection by *Plasmodium falciparum* and *Plasmodium vivax* are urgently needed. RESULTS: Natural product scaffolds have been the basis of the majority of current anti-malarial medicines. Molecules such as quinine, lapachol and artemisinin were originally isolated from herbal medicinal products. After improvement with medicinal chemistry and formulation technologies, and combination with other active ingredients, they now make up the current armamentarium of medicines. In recent years advances in screening technologies have allowed testing of millions of compounds from pharmaceutical diversity for anti-malarial activity in cellular assays. These initiatives have resulted in thousands of new sub-micromolar active compounds—starting