

Ann Arbor, MI 02/01/2015. Diapin Therapeutics, LLC., a company dedicated to the development of treatments for type 2 diabetes and cardiovascular disease, announced today the awarding of a Phase 1 SBIR grant entitled “Development of DT-109 as an Oral Therapeutic for Type 2 Diabetes” to Zhongmin “Alex” Ma, Diapin’s Chief Scientific Officer. “This grant application is focused on identifying the target for our 3 amino acid peptides and to better understand their mechanism of action,” said Dr. Ma. Previous work by Diapin demonstrated that DT-109 and DT-110 work by stimulating the activity of a G protein-coupled receptor (GPCR) and 3 potential targets were identified in a screen of a GPCR library. “It is interesting that the only receptor that is stimulated by the lowest concentration of DT-109 and DT-110 has not previously been implicated in blood glucose control or in the treatment of type 2 diabetes. This potential novel mechanism could open up a new avenue in diabetes research and development as well as create new intellectual property for Diapin,” said Dr. Bruce Markham, Diapin’s President and CEO. Dr. Ma has already made significant progress on the studies proposed in the grant.

About Type 2 Diabetes

Non-insulin-dependent (type 2) diabetes (T2D) is a major medical problem in the industrialized world. According to the Center for Disease Control, diabetes affects 8.3% (26 million) of the US population, and another 79 million have characteristics of pre-diabetes (insulin-resistance). According to the New England Journal of Medicine, 9.7% of the population in China (94 million) is afflicted with diabetes with another 150 million with pre-diabetes. T2D is the most common form of diabetes. It is a chronic disease where the patient has high glucose levels in the blood. The disease results from problems in the way the body makes and/or uses insulin. Insulin stimulates cells to take up glucose where it is stored and used to produce energy. In patients with T2D, fat, liver, and muscle cells become resistant to the effects of insulin and glucose accumulates in the blood. T2D develops over time. As people gain weight and become obese, the fat cells and fat that accumulates in other cells inhibit the cellular response to insulin. Low activity level, poor diet and excess body fat increase the risk of developing the disease.

Early symptoms of T2D include frequent bladder, kidney skin or other infections that heal slowly, fatigue, hunger, increased thirst, increased urination, blurred vision, erectile dysfunction and pain or numbness in the extremities. If left untreated, or as the disease progresses, more serious complications can occur including eye problems (blindness or light sensitivity), sores that won’t heal and are prone to infection, cardiovascular complications including increases in blood pressure and cholesterol that can lead to heart attack and stroke, nerve damage, digestive problems, and kidney damage or failure.

1 http://www.cdc.gov/diabetes/statistics/prevalence_national.htm

2 Yang, W. et al., NEJM (2010) 362: 1090-1101

3 NIH-PubMed Health web page:
<http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001356/>