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Insulin sensitizer to treat diabetes

March 26, 2012 | News | By BioSpectrum Bureau

Verva Pharmaceuticals developing novel diabetes therapies



While pharmaceutical companies worldwide are looking for newer and safer insulin sensitizers to treat diabetes, Australia-based Verva Pharmaceuticals is working on a product candidate that promises to be an effective tool in controlling diabetes.

Analyzing the need of the hour, Verva Pharmaceuticals started developing an insulin sensitizer, VVP808, that makes diabetic liver cells more responsive to insulin and reduces hepatic glucose production. According to the company, VVP808 is not structurally or mechanistically related to existing insulin sensitizers, such as Avandia by GlaxoSmithKline and Actos by Takeda, and hence it is not expected to have the side effects observed in using these products.

Avandia and Actos were multi-billion dollar products before safety concerns limited their use. Since then, there has been a significant interest in identifying new insulin sensitizers to replace these products.

Verva Pharmaceuticals is a virtual, clinical-stage pharmaceutical company developing novel therapies to treat diabetes and obesity. It was formed in December 2007 by consolidation of key diabetes assets, discovery technologies and targets in

Autogen Research (formerly the diabetes-focused subsidiary of ChemGenex Pharmaceuticals) with those of obesity drug development company, Adipogen Pharmaceuticals.

Credited with a lot of potential, Verva has achieved multi-directional achievements since its inception. Recently, it executed a $515,488 (AUD500,000) subscription agreement with Medical Research Commercialization Fund (MRCF), which is an extension of its series A investment. The company also closed enrolment in the VVP808 clinical study at 76 participants.

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The active ingredient of VVP808 was previously marketed in North America as an oral treatment for glaucoma. Preclinical studies have shown that it exerts its anti-diabetic effect through a mechanism different from the known glaucoma mode-of-action. Verva, in collaboration with the metabolic research unit of Deakin University, is utilizing mechanistic and structural knowledge derived from studies on VVP808 to identify the VVP808 diabetes molecular target and to develop proprietary, next-generation insulin sensitizers (VVP100X).

VVP100X molecules are expected to have improved efficacy and stronger composition-of-matter intellectual property protection than VVP808, providing a longer term value proposition.

Parallel to the VVP808-002 clinical study, Verva is evaluating the prospects of developing a VVP808 dosage form in light of the potential regulatory requirements for approval of VVP808 as a diabetes therapy. A possible dosage form of VVP808 product is a fixed-dose combination with first-line diabetes therapy metformin. The next stages of clinical testing will require elaboration of the best doses of VVP808 to use in diabetes treatment and identification of potential benefits, such as weight loss and improved safety.

"Success in the VVP808 clinical trial is central to Verva's overall value proposition. In addition to providing a potential product opportunity, its clinical success will provide validation to our diabetes target and VVP100X discovery programs and will highlight the utility of gene expression signature diabetes discovery and diagnostic platform used to discover VVP808," says Mr Vince Wacher, CEO, Verva Pharmaceuticals.

"Contingent on prevailing market conditions and success in its technical programs, it is Verva's intention to leverage its portfolio to effect a strategic transaction that will enable advancement of our product portfolio and deliver a meaningful return to Verva shareholders," adds Mr Wacher. "We look forward to the results of our clinical trial and continued advancement of our preclinical programs over the next 12 months."