From JANUVIA to MARIZEV (Omarigliptin), a Once Weekly DPP-4 Inhibitor for the Treatment of Diabetes

Ann E. Weber
Kallyope Inc.
430 East 29th Street, Suite 1050
New York, NY 10016

While non-adherence to medications is linked to negative outcomes, in chronic diseases such as type 2 diabetes, adherence may be low, averaging about 50%. Adherence to oral antihyperglycemic agents (AHA) is directly related to the number of pills prescribed and the complexity of the dosing regimen. The convenience of an effective, well-tolerated oral AHA that can be dosed once weekly has the potential to improve medication adherence, which may translate into better outcomes for diabetic patients. With the success of once daily dipeptidyl peptidase IV (DPP-4) inhibitors such as JANUVIA (sitagliptin) for the treatment of diabetes, we sought to invent and develop a best-in-class, once weekly DPP-4 inhibitor. The work led to the identification of omarigliptin, a potent and selective DPP-4 inhibitor with a half-life in humans of over 60 hours. One 25-mg dose provides sustained DPP-4 inhibition and glucose lowering over the course of one week. Omarigliptin was approved in Japan and is marketed there as MARIZEV.