

\*\*\*\*New release March 2017\*\*\*\*

## MarketVIEW: Herpes Simplex Virus (PX) vaccines (CAT: VAMV016)

<b>Product Name</b>	:	<b>MarketVIEW:</b> Herpes Simplex Virus prophylactic (PX) vaccines
<b>Description</b>	:	Global vaccine commercial opportunity assessment
<b>Contents</b>	:	Executive presentation (.pdf) + 1 forecast model (.xls)
<b>Therapeutic Area</b>	:	Adolescent/adult vaccines
<b>Publication date</b>	:	March 2017
<b>Catalogue No</b>	:	VAMV016

## Background

**Herpes Simplex Virus (HSV-2)** is a sexually transmitted virus which is a major cause of genital herpes (GH). Although most individuals infected with HSV-2 have minimal signs of infection, the disease is life-long and in some, causes considerable emotional and physical distress. Individuals asymptomatically infected with HSV-2 can continue to transmit virus making its containment at the public health level extremely challenging.

Vaccine manufacturers have pursued the development of prophylactic (PX) HSV vaccines albeit with little success to date (note: GSK's Simplirix). Mathematical modelling has indicated that mass vaccination with a HSV vaccine that can prevent the establishment of viral latency and shedding could substantially reduce disease burden and economic cost. **Sanofi Pasteur** is clinically testing a replication-defective mutant virus, **HSV529**.

This **MarketVIEW**<sup>1</sup> product is a comprehensive MS Excel-based model + summary presentation which forecasts the potential commercial value of a PX HSV vaccines across major Western markets + BRIC-M to 2040. The model contains value (\$ m) and volume (mio doses) predictions along with launch timeframe, pricing, and penetration estimates. **LO/BASE/HI** target product profile (TPP) pricing scenarios are included which examine the uptake of vaccines across successive population groups. A detailed review is also included on latest trends in disease epidemiology/dynamics/competitive environment.

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<sup>1</sup> **VacZine Analytics** has also published on therapeutic HSV vaccines. Please see CAT No: VAMV038, published February 2017

## Methodology

**VacZine Analytics** has closely monitored all significant source material pertaining to Herpes Simplex Virus (HSV-1/2) epidemiology/vaccines and consulted with global experts regarding their predictions of vaccine deployment. Secondary source materials used are literature articles, government websites, medical bodies and associations, conference proceedings etc. Previously published research by **VacZine Analytics** in the adolescent/adult vaccines field has also been utilised.

### PRODUCT CONTENTS:

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\*\*\*\*This product is composed of a model (.xls)<sup>2</sup> and summary presentation (.pdf)

#### Contents – Summary presentation (.pdf)

Author's note  
Executive summary  
HSV prophylactic vaccines: Key commercial model outputs  
HSV PX vaccine: forecast revenues (\$m) to 2040 (global)  
HSV PX vaccine: predicted volume (000s doses) to 2040 (global)  
HSV PX vaccine: pricing simulations (base scenario) to 2040  
HSV PX vaccine: forecast revenues (\$m) by group (high)  
HSV PX vaccine: forecast revenues (\$m) by geography (high)  
HSV PX vaccine: forecast revenues (\$m) by country to 2040 (high)  
HSV PX vaccine: volume by segment to 2040 (high)  
Herpes simplex virus: disease background  
HSV - the pathogen  
Life cycle and pathogenesis of HSV  
HSV-1 and HSV-2 life cycles  
Diagnosis of HSV infection  
Clinical manifestations of HSV-1 and HSV-2  
Association of HSV-2 and human immunodeficiency virus  
Rare, deadly outcomes of HSV infection: neonatal herpes  
Rare, deadly outcomes of HSV infection: HSV encephalitis  
Serious morbidity associated with HSV: herpes simplex keratitis  
Clinical reactivation of HSV-1 and HSV-2  
Disease burden of HSV  
Economic burden of HSV  
Summary: HSV-1/HSV-2  
Herpes simplex virus: review of disease epidemiology  
Epidemiology of HSV  
Prevalence of HSV-2 infection in 2012 by WHO region  
HSV-1/HSV-2 diagnosis and surveillance  
Epidemiology: UK  
Epidemiology: US

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<sup>2</sup> Model contents are available upon request

**Continued.....**

Epidemiology: other markets  
HSV-1 and HSV-2 seroprevalence studies  
HSV-1 as an emerging cause of genital herpes  
Herpes simplex virus: Current management strategies  
Current management of genital herpes  
2016 WHO recommendations for the treatment of genital HSV  
Herpes simplex virus prophylactic vaccines: rationale for development, case studies  
Evidence that an HSV vaccine is feasible  
Two approaches to HSV vaccination  
Unmet need for a prophylactic HSV vaccine  
HSV PX vaccines past failures: Simplirix (GSK) case study  
Herpevac trial - main results  
Why was Simplirix unsuccessful?  
Potential public health impact of HSV-2 vaccines  
Herpes simplex virus vaccines: overview of current research and development  
HSV PX vaccines: overview  
HSV PX vaccines: pipeline table  
HSV prophylactic vaccines: Target product profile (TPP)  
HSV prophylactic vaccines: Commercial model assumptions  
Overall modelling approach and rationale  
Markets modelled in this analysis  
Commercial model assumptions (detailed)  
HPV prophylactic vaccine schedules and HSV coverage  
HSV-1 and HSV-2 seroprevalence studies: model inputs  
Summary of the five groups making up the three scenarios  
Model caveats and limitations  
Bibliography  
About **VacZine Analytics**  
Disclaimer

**PAGES: 80 MS slides, fully referenced/sourced. Available in .pdf form**

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**VacZine Analytics**

Warren House  
Bells Hill  
Bishops Stortford  
Herts  
CM23 2NN  
United Kingdom  
Tel: +44 (0) 1279 654514 / +44 (0) 7952470582 / Fax: +44 (0) 1279 655926  
E-mail: [info@vacZine-analytics.com](mailto:info@vacZine-analytics.com)

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## About VacZine Analytics:

**VacZine Analytics** is an established strategic research agency based in the United Kingdom. Its aim is to provide disease and commercial analysis for the vaccine industry and help build the case for developing new vaccines and biologics.

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