\*\*\*\*Published November 2013\*\*\*

# MarketVIEW: Chagas disease vaccines

Product Name : MarketVIEW: Chagas disease vaccines

**Description** : Global vaccine commercial opportunity assessment

**Contents** : Executive presentation + 1 forecast model

**Therapeutic** : Pediatric/endemic vaccines

Area

Publication : November 2013

date

Catalogue No : VAMV051

## Background

Chagas disease, is caused by the protozoan parasite *Trypanasoma cruzi (T.cruzi)*. *T.cruzi* mainly infects young children living in poverty and it is estimated that around 10 million people carry the pathogen with 99% living in Latin America. After acute infection most individuals remain in an asymptomatic indeterminate disease phase, which can last for decades. However, around 30 to 40% progress to chronic disease (determinate phase), which includes serious cardiac and gastrointestinal manifestations. It is estimated that around 10,000 deaths occur each year due to chronic Chagas disease with substantial economic losses.

Although antiparasitic drugs have proven efficacy against Chagas disease in the early stages, their effectiveness in established chronic disease is very low. For this reason investigators are pursuing *T.cruzi* vaccine approaches which may prevent infection or treat infection after exposure. For the latter, a vaccine may decrease parasite load below a threshold which reduces disease severity and/or delays complications. The **Sabin Vaccine partnership** are currently progressing preclinical T.cruzi vaccine candidate (Tc24/TSA-1).

This **MarketVIEW** product is a comprehensive commercial opportunity assessment detailing the potential for *T.cruzi* vaccine profiles in the LATAM, US and EU regions. Two therapeutic vaccine profiles (TX) are modelled in determinate and indeterminate populations to 2034, along with investigation also of a prophylactic (PX) vaccine profile. The analysis provides an up-to-date review of the literature in terms of epidemiology, treatment, cost implications coupled with a review of vaccine development history to date. Clear assumptions are provided in terms of prospective vaccine launch date, penetration estimates, pricing estimates and gross revenue forecasts.



## Methodology

**VacZine Analytics** has closely monitored all significant source material pertaining to Chagas disease vaccines. Example, secondary source materials used are literature articles, government websites/databases, medical bodies and associations, conference proceedings and previously analyses (where publically available). Previously published research by **VacZine Analytics** in field of pediatric vaccines has also been utilised. \*\*\*See Bibliography for exact sources.

## **PRODUCT CONTENTS:**

Published November 2013 (CAT No: VAMV051)

\*\*\*\*This product is composed of a model and summary presentation

## **Contents – Summary presentation (MS PowerPoint based)**

Author's note

**Executive Summary** 

T.cruzi therapeutic vaccine: potential revenues to 2034 per scenario T.cruzi therapeutic vaccine: potential volumes to 2034 per scenario T.cruzi therapeutic vaccine: potential revenues to 2034 per region LO T.cruzi therapeutic vaccine: potential revenues to 2034 per region HI T.cruzi prophylatic vaccine: potential revenues to 2034 per scenario T.cruzi prophylatic vaccine: potential volumes to 2034 per scenario

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Trvpanosoma cruzi: hosts

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Trypanosoma cruzi: United States

Trypanosoma cruzi: immigrants to selected EU countries1

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### Continued.....

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Chagas disease: clinical aspects - interdeterminate/chronic phase

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Chagas heart disease

Chagas disease: digestive form

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Desirable immune responses of a Trypanosoma cruzi vaccine

Trypanosoma cruzi: vaccine development history

Trypanosoma cruzi vaccines: preclinical subunit approaches

Trypanosoma cruzi: DNA vaccine approaches

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T.cruzi therapeutic vaccine: modelling strategy

T.cruzi therapeutic vaccine: target product profile (TPP) – LO T.cruzi therapeutic vaccine: target product profile (TPP) – HI

T.cruzi therapeutic vaccine: modelling scenarios

TX Modelling strategy: populations/target groups/presentation

TX Modelling strategy: product penetration/introduction

T.cruzi therapeutic vaccine: penetration rates chosen

T.cruzi therapeutic vaccine: compliance/boosting rates chosen

Trypanosoma cruzi vaccines: cost effectiveness

T.cruzi therapeutic vaccine: pricing estimates used in model T.cruzi prophylatic vaccine: modelling commercial potential T.cruzi prophylatic vaccine: target product profile (TPP)

T.Cruzi prophylactic vaccine: modelling strategy

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PAGES: 100 MS PowerPoint slides, fully referenced/sourced. Available in .pdf form



#### Continued.....

## Contents - Vaccine demand model(s) (MS Excel-based) - 1 model

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PX charts - VOL VAL

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Therapeutic vaccine→

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Val sum Lo scenario

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Canada hi,

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Mexico hi,

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El Salvador hi,

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Honduras hi

Guatemala low

Guatemala low Nicaragua low

Nicaragua hi

Argentina lo Argentina hi,

Bolivia low

Bolivia hi,

**Brazil low** 

Brazil hi. Chile low

Chile hi.

Colombia low

Colombia high

Ecuador low

Ecuador hi,

Paraguay low

Paraguay hi,

Peru low

Peru hi,

Venezuela low

Venezuela hi,

Continued.....



Other LATAM low Other LATAM hi, EU low EU high Source material T. Cruzi prevalence EU immigration Population >2 yrs Population >14 yrs

**WORKSHEETS: ~56** 



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**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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