****Published February 2017***

MarketVIEW: Therapeutic cancer vaccines overview (CAT: VAMV072)

Product Name MarketVIEW: Therapeutic cancer vaccines overview

Description : Overview of therapeutic cancer vaccines

Contents : Executive presentation (.pdf) + 1 Excel workbook (.xls)

Therapeutic Area : Cancer immunotherapy

Publication date : February 2017

Catalogue No : VAMV072

Background

Cancer is one of the leading causes of death worldwide causing approximately 1 in every 7 deaths. In 2012, 8.2 million people died of the disease with 14 million new cases recorded in that year (WHO Figures). In 2030, the number of new cancer cases is projected to be >22 million (50-70% increase) due to the increasing population age and size.

Cancer immunotherapy (active and passive) aims to harness the body's own immune system in the fight against tumour progression. In the past decade, this strategy has become the most promising in the search for novel cancer therapies. Recent breakthroughs include either tumour specific/bi-specific monoclonal antibodies (mAbs), checkpoint inhibitors, adoptive cell therapy and therapeutic cancer vaccines (peptides, dendritic cells, allogenic cells, autologous cells, oncolytic viruses). For the latter group, Dendreon's Provenge® (Sipuleucel-T) was the first therapeutic vaccine approved for any cancer.

This **MarketVIEW** product consists of a detailed Executive presentation (~100 slides) and MS-Excel work book summarizing current approaches in cancer immunotherapy with an in-depth focus on the therapeutic cancer vaccine category. Included is an analysis of over 300 verified cancer vaccine programs (Phase I-III) delineated by sponsor, sponsor type, mechanism, tumor type, results, and other relevant fields. Detailed case studies are presented for the identified late stage (Phase III) industry sponsored programs e.g. **PROSTVAC® Bavarian Nordic** with presentation of clinical trial data relevant to the Provenge® (Sipuleucel-T) reference for FDA approval. This analysis is recommended to any client wishing to understand quickly the commercial landscape of the therapeutic cancer vaccine field within the overview dynamic of cancer immunotherapy.



Methodology

VacZine Analytics has closely monitored all significant source material pertaining to therapeutic cancer vaccines as approaches to cancer immunotherapy. Source materials used are literature articles, government websites, medical bodies and associations, conference proceedings etc.

PRODUCT CONTENTS:

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****This product is composed of one Excel workbook (.xls)1 and an executive presentation (.pdf)2

Contents

Executive summary

Cancer and immunotherapy

Cancer immunotherapy: broad approaches

Overview

Introduction to cancer vaccines

Types of cancer vaccines

Cancer vaccine approaches: cell-based vaccines Cancer vaccine approaches: peptide-based vaccines

Cancer vaccine approaches: DNA vaccines Cancer vaccine approaches: RNA vaccines Cancer vaccine approaches: Viral vector vaccines Cancer vaccine approaches: Oncolytic viruses

Approved therapeutic cancer vaccines

Provenge® (Sipuleucel-T)

Provenge® (Sipuleucel-T): Phase III data Provenge® (Sipuleucel-T): Ongoing trials

Current R&D pipeline

Cancer vaccines: pipeline analysis methodology Cancer vaccine trials (Phase I-III), by tumour type Cancer vaccine trials, by phase and sponsor type 2016 Cancer vaccine trials, by tumour and sponsor type 2016 Cancer vaccine trial phases verified 2016 per tumour tissue

Cancer vaccine phase III trials per tumour type

Cancer vaccine trials conducted for single vs multiple tissue tumours - verified in 2016 Industry sponsored Phase II/III and Phase III cancer vaccine trials verified in 2016

Melanoma

Seviprotimut-L (POL-103A) - Polynoma Seviprotimut-L (POL-103A): Phase II data

Prostate Cancer

PROSTVAC® (rilimogene galvacirepvac) - Bavarian Nordic

PROSTVAC® : Phase II data

PROSTVAC®: Phase III trial (ongoing)
PROSTVAC®: Key ongoing trials
ProstAtak® (AdV-tk) - Advantagene Inc
ProstAtak® (AdV-tk) - Phase II trial

DCVAC/PCa - Sotio

¹ Contents available on request

² Presentation titles may apply to more than one slide



Continued.....

DCVAC/PCa: Phase II data DCVAC/PCa: Key ongoing trials

Brain Cancer

DCVax®-L - Northwest Biotherapeutics DCVax®-L: Phase I/II DCVax-L Trials DCVax®-L: Key ongoing trials

ICT-107 - Immunocellular Therapeutics Ltd

ICT-107: Phase II data Ovarian Cancer

Vigil® (gemogenovatucel-T, FANGTM) - Gradalis

Vigil®: Phase II data Vigil®: Key ongoing trials

Colon Cancer

ALLOSTIM® - Immunovative Therapies Ltd

ALLOSTIM®: Phase I/II data

ALLOSTIM®/ Allovax®: Key ongoing trials

Lung Cancer

Tedopi® (OSE2101) - OSE Immunotherapeutics Tedopi® (OSE-2101, IDM-2101)): Phase II data Vaxira® (Racotumomab-alum, 1E10) - Recombio Vaxira® (Racotumomab-alum, 1E10): Phase II data

EGF PTI (BV-NSCLC-002) - Bioven EGF PTI (BV-NSCLC-002): Phase II data

HyperAcuteTM (Tergenpumatucel-L) - NewLink Genetics Corporation HyperAcuteTM (Tergenpumatucel-L): Phase II study

Appendix: Historical analysis since 1991

Cancer vaccine trials to date: Historical view since 1991 Cancer vaccine trials to date - Result status historical view Cancer Vaccine Trials to Date - Trial phase historical view

Cancer Vaccine Trials to Date - Trials conducted for single vs multiple tissue tumours - historical view

Cancer vaccine trials - Last verification dates

Cancer vaccine trials - Last verification dates 2001-2016 by tissue

Cancer vaccines: development history summary

Slide number = 99



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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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