

****Published February 2015****

MarketVIEW: Parkinson's disease vaccines (CAT: VAMV049)

Product Name	:	MarketVIEW: Parkinson's disease vaccines
Description	:	Global vaccine commercial opportunity assessment
Contents	:	Executive presentation + 1 forecast model
Therapeutic Area	:	Novel vaccines
Publication date	:	February 2015
Catalogue No	:	VAMV049

Background

Parkinson's disease is a degenerative disorder of the central nervous system where main symptoms are tremor at rest, stiffness, slowing of movement and postural instability. It is estimated that 6.3 million people have Parkinson's worldwide, affecting all races and cultures. After Alzheimer's, it is the second most prevalent neurodegenerative disorder, affecting 1% of those over 60, and 4% of those over 80. Parkinson's disease is associated with a substantial economic burden estimated \$14 bn in the US, 2010.

There is currently no cure for Parkinson's disease and treatments are concentrated on the management of symptoms. The concept of a therapeutic vaccine acting against alpha-synuclein has prompted biotech **AFFIRIS AG** to investigate a first in class vaccine (PD01A) currently in Phase I clinical testing. **AFFIRIS** are part of a new EU consortium SYMPATH which is also progressing another candidate PD03A also based on the technology (**AFFITOPE**®)

This **MarketVIEW** product is a comprehensive commercial opportunity assessment detailing the current and potential market for Parkinson's disease vaccine(s) using a patient based value/volume forecast for major Western markets to 2030. The forecast gives revenues and volume shares for Western competitors in 3 uptake scenarios >40 yrs. The analysis also takes into account the possibility of prophylactic use and provides an up-to-date review on all aspects of disease epidemiology, treatment and patient management.

Methodology

VacZine Analytics has closely monitored all significant source material pertaining to Parkinson's disease. 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 novel vaccines has also been utilised. *****See Bibliography for exact sources.**

PRODUCT CONTENTS:

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

Contents – Summary presentation (MS PowerPoint based)

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- Executive summary
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- Parkinson's disease vaccine: predicted global demand (doses 000)
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- Parkinson's disease vaccine: available US market (\$m) to 2030
- Parkinson's disease vaccine: treated compliant patients to 2030 (US)
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Continued.....

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Parkinson's disease vaccine forecast model: assumptions
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Disclaimer
About **VacZine Analytics**

PAGES: 67 MS PowerPoint slides, fully referenced/sourced. Available in .pdf form

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

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BIBLIOGRAPHY:

1. Parkinson's disease. Available on: <http://ghr.nlm.nih.gov/condition/parkinson-disease>. Accessed January 2015
2. Jankovic (2008) Parkinson's disease: clinical features and diagnosis. *J. Neurol. Neurosurg. Psychiatr.* 79 (4): 368–76.
3. Davie (2008) "A review of Parkinson's disease". *Br. Med. Bull.* 86 (1): 109–27
4. Parkinson's disease. Available at: <http://www.patient.co.uk/health/parkinsons-disease>. Accessed January 2015
5. Parkinson's disease – Causes. Available at <http://www.nhs.uk/Conditions/Parkinsons-disease/Pages/Causes.aspx>. Accessed January 2015
6. Parkinson's disease – Symptoms. Available on: <http://www.nhs.uk/Conditions/Parkinsons-disease/Pages/Symptoms.aspx>. Accessed January 2015
7. Prevalence of Parkinson's disease. Available on: <http://www.epda.eu.com/en/parkinsons/life-with-parkinsons/part-1/prevalence-of-parkinsons-disease/>. Accessed January 2015
8. Ben-Shlomo, Epidemiology of Parkinson's disease. Available on: <http://www.birminghammodis.com/handbook/01%20Ben-Shlomo%20Epidemiology%20of%20Parkinsons%20Disease.pdf>. Accessed January 2015
9. Lau & Breteler (2006) Epidemiology of Parkinson's disease. *The Lancet Neurology*, Volume 5, Issue 6, Pages 525 – 535
10. Incidence, Prevalence and Cost of Parkinson's disease. Available on: <http://eng.ircminternational.com/2011/04/incidence-prevalence-and-cost-of-parkinsons-disease/>. Accessed January 2015
11. Tanner et al (2008) Parkinson's disease: A Global View. Available on: <http://www.parkinson.org/NationalParkinsonFoundation/files/84/84233ed6-196b-4f80-85dd-77a5720c0f5a.pdf>. Accessed January 2015
12. Parkinson's disease Fact Sheet. Available on: <http://www.europeanbraincouncil.org/pdfs/Documents/Parkinson%27s%20fact%20sheet%20July%202011.pdf>. Accessed January 2015
13. Who gets Parkinson's disease? Available on: <http://www.parkinsoninfo.org/about-parkinsons-disease/who-gets-parkinsons-disease/>. Accessed January 2015
14. Parkinson's disease. Available on: <http://www.healthcommunities.com/parkinsons-disease/incidence-prevalence.shtml>. Accessed January 2015
15. Marras & Tanner (2002) The epidemiology of Parkinson's disease. In Watts RL, Koller WC (eds): *Movement Disorders Neurologic Principles and Practice*, New York: McGraw-Hill, pages 177-96
16. Haaxma et al (2007) Gender differences in Parkinson's disease. *J Neurol Neurosurg Psychiatry*. 2007 August; 78(8): 819–824.
17. Kowal et al (2013) The current and projected economic burden of Parkinson's disease in the United States. *Mov Disord.* 2013 Mar;28(3):311-8
18. The Parkinson Foundation. Available on: <http://www.parkinson.org/about-us.aspx>. Accessed January 2015
19. Parkinson's disease. Available on: <http://www.lundbeck.com/global/brain-disorders/disease-areas/parkinsons-disease>. Accessed January 2015
20. Parkinson's prevalence in the United Kingdom (2009) Parkinson's UK. Available on: http://www.parkinsons.org.uk/sites/default/files/parkinsonsprevalenceuk_0.pdf. Accessed January 2015
21. Parkinson's disease – Diagnosis. Available on: <http://www.nhs.uk/Conditions/Parkinsons-disease/Pages/Diagnosis.aspx>. Accessed January 2015
22. Parkinson's disease – Map of Medicine. Available on: http://healthguides.mapofmedicine.com/choices/map/parkinson_s_disease1.html. Accessed January 2015
23. Treatments and Therapies for Parkinson's. Available on: <http://www.parkinsons.org.uk/content/treatments-and-therapies-parkinsons>. Accessed January 2015
24. The National Collaborating Centre for Chronic Conditions, ed. (2006). "[Symptomatic pharmacological therapy in Parkinson's disease](#)". *Parkinson's Disease*. London: Royal College of Physicians. pp. 59–100
25. What are the Treatment Options for Parkinson's disease? Available on: <http://www.medicalnewstoday.com/info/parkinsons-disease/treatment-for-parkinsons-disease>. Accessed January 2015
26. Parkinson's Disease treatment and management. Available on: <http://emedicine.medscape.com/article/1831191-treatment#aw2aab6b6b2>. Accessed January 2015
27. Parkinson's Disease: Treatment and drugs. Available on: <http://www.mayoclinic.com/health/parkinsons-disease/DS00295/DSECTION=treatments-and-drugs>. Accessed January 2015
28. Medications and treatments. Available on: http://www.pdf.org/en/meds_treatments. Accessed January 2015
29. How is PD treated. Available on: <http://www.parkinson.org/Parkinson-s-Disease/Treatment>. Accessed January 2015
30. Wenning & Poewe (2004) Where are we after 30 years of clinical experience with levodopa? *Focus on Parkinson's disease*. Vol 16, Suppl. A

31. Jain et al. (2012) Which drugs work best for early Parkinson's disease? *The Journal of Family Practice*, Vol 61, No 2
32. Statistics on Parkinson's. Available on http://www.pdf.org/en/parkinson_statistics. Accessed January 2015
33. Lökk et al. (2012) Drug and treatment costs in Parkinson's disease patients in Sweden.. *Acta Neurol Scand.* 125(2):142-7
34. Winter et al. (2010) Costs of Parkinson's disease and antiparkinsonian pharmacotherapy: an Italian cohort study. *Neurodegener Diseases.* 7(6):365-72
35. Parkinson's disease, Fast Facts. EPDA. Available on: <http://oursocialmedia.com/wp-content/uploads/2010/09/PD-fast-facts-FINAL.pdf>. Accessed January 2015
36. Von Campenhausen et al. (2011) Costs of illness and care in Parkinson's Disease: An evaluation in six countries. *European Neuropsychopharmacology.* 21, 180–191
37. Mateus and Coloma (2013) Health Economics and Cost of Illness in Parkinson's Disease. *European Neurological Review.* 8(1):6–9
38. Stacey et al. (2013) The current and projected economic burden of Parkinson's disease in the United States. *Movement disorders.* Vol. 28. Issue 3. p. 311-318
39. Chen (2010) Parkinson's Disease: Health-Related Quality of Life, Economic Cost, and Implications of Early Treatment. *Am J Manag Care.* 16:S87-S93.
40. Chen, (2008) Pharmacoeconomics of Parkinson's disease: Economic Impact of PD. Available on: Medscape http://www.medscape.org/viewarticle/578372_3. Accessed November 2013.
41. Parkinson's UK. Parkinson's and the NHS in England: the cost of poor care. Available on: http://www.parkinsons.org.uk/sites/default/files/infographic_costofpoorcare.pdf. Accessed January 2015
42. Dorsey et al. (2007) Projected number of people with Parkinson disease in the most populous nations, 2005 through 2030. *Neurology;* 68(5):384-6
43. Schneeberger et al. (2011) Vaccination for Parkinson's disease. *Parkinsonism and Related Disorders* 18S1 S11–S13
44. Vaccine against Parkinson. Available on: <http://www.affiris.com/html/en/impfstoffe/parkinson.html>. Accessed January 2015
45. Repositioning BCG Vaccination as an Immunostimulant for Slowing the Progression of PD https://www.michaeljfox.org/foundation/grant-detail.php?grant_id=857. Accessed January 2015
46. <http://clinicaltrials.gov/show/NCT01568099>. Accessed January 2015
47. Cortez (2013) Parkinson's Patients May Be Harmed by Novel Treatment <http://www.bloomberg.com/news/2013-03-21/parkinson-s-patients-may-be-harmed-by-novel-treatment.html> . Accessed November 2013
48. Medications and treatments. Available on: http://www.pdf.org/en/meds_treatments. Accessed January 2015
49. How is PD treated. Available on: <http://www.parkinson.org/Parkinson-s-Disease/Treatment>. Accessed January 2015
50. Wenning & Poewe (2004) Where are we after 30 years of clinical experience with levodopa? *Focus on Parkinson's disease.* Vol 16, Suppl. A
51. Wenning & Poewe (2004) Where are we after 30 years of clinical experience with levodopa? *Focus on Parkinson's disease.* Vol 16, Suppl. A
52. Jain et al. (2012) Which drugs work best for early Parkinson's disease? *The Journal of Family Practice*, Vol 61, No 2
53. Statistics on Parkinson's. Available on: http://www.pdf.org/en/parkinson_statistics. Accessed January 2015
54. Lökk et al. (2012) Drug and treatment costs in Parkinson's disease patients in Sweden.. *Acta Neurol Scand.* 125(2):142-7
55. Winter et al. (2010) Costs of Parkinson's disease and antiparkinsonian pharmacotherapy: an Italian cohort study. *Neurodegener Diseases.* 7(6):365-72
56. Parkinson's disease, Fast Facts. EPDA. Available on: <http://oursocialmedia.com/wp-content/uploads/2010/09/PD-fast-facts-FINAL.pdf>. Accessed January 2015
57. Von Campenhausen et al. (2011) Costs of illness and care in Parkinson's Disease: An evaluation in six countries. *European Neuropsychopharmacology.* 21, 180–191
58. Mateus and Coloma (2013) Health Economics and Cost of Illness in Parkinson's Disease. *European Neurological Review.* 8(1):6–9
59. Stacey et al. (2013) The current and projected economic burden of Parkinson's disease in the United States. *Movement disorders.* Vol. 28. Issue 3. p. 311-318
60. Chen (2010) Parkinson's Disease: Health-Related Quality of Life, Economic Cost, and Implications of Early Treatment. *Am J Manag Care.* 16:S87-S93.
61. Chen, (2008) Pharmacoeconomics of Parkinson's disease: Economic Impact of PD. Available on: Medscape http://www.medscape.org/viewarticle/578372_3. Accessed November 2013.
62. Parkinson's UK. Parkinson's and the NHS in England: the cost of poor care. Available on: http://www.parkinsons.org.uk/sites/default/files/infographic_costofpoorcare.pdf. Accessed January 2015
63. Parkinson's disease, Fast Facts. EPDA. Available on: <http://oursocialmedia.com/wp-content/uploads/2010/09/PD-fast-facts-FINAL.pdf>. Accessed January 2015
64. Parkinson's prevalence in the United Kingdom (2009) Parkinson's UK. Available on: http://www.parkinsons.org.uk/sites/default/files/parkinsonsprevalenceuk_0.pdf. Accessed January 2015

65. Dorsey et al. (2007) Projected number of people with Parkinson disease in the most populous nations, 2005 through 2030. *Neurology*; 68(5):384-6
66. Stacey et al. (2013) The current and projected economic burden of Parkinson's disease in the United States. *Movement disorders*. Vol. 28. Issue 3. p. 311-318
67. Schneeberger et al. (2011) Vaccination for Parkinson's disease. *Parkinsonism and Related Disorders* 18S1 S11–S13
68. Affiris Corporate Website. Vaccine against Parkinson. Available on: <http://www.affiris.com/html/en/impfstoffe/parkinson.html>. Accessed January 2015
69. Schneeberger et al. (2011) Vaccination for Parkinson's disease. *Parkinsonism and Related Disorders* 18S1 S11–S13
70. Repositioning BCG Vaccination as an Immunostimulant for Slowing the Progression of PD https://www.michaeljfox.org/foundation/grant-detail.php?grant_id=857. Accessed January 2015
71. Clinicaltrials.gov Available: <http://clinicaltrials.gov/show/NCT01568099>. Accessed January 2015
72. Parkinson's Vaccine - Top Experts Unite in European Consortium. Press release. April 28, 2014. Available at: <http://www.prnewswire.com/news-releases/parkinsons-vaccine---> Accessed January 2014
73. Parkinson's Vaccine. SYMPATH. Available at: <http://www.sympath-project.eu/partners/>. Accessed January 2014

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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.

For more information please visit our website www.vacZine-analytics.com

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