CVT-301 (PARKINSON’S DISEASE) - FORECAST AND MARKET ANALYSIS TO 2022
Table below summarizes the key metrics for CVT-301 in the 8MM Parkinson’s disease (PD) pharmaceutical markets in 2022.

CVT-301: Key Metrics in the 8 MM Parkinson’s Disease Market

<table>
<thead>
<tr>
<th>Launch of Civitas’ CVT-301 between 2018–2019</th>
<th>↑↑↑</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2022 Market Sales</strong></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>$379.7m</td>
</tr>
<tr>
<td>5EU</td>
<td>$80.4m</td>
</tr>
<tr>
<td>Japan</td>
<td>N/A</td>
</tr>
<tr>
<td>Brazil</td>
<td>N/A</td>
</tr>
<tr>
<td>Total</td>
<td>$460.1m</td>
</tr>
</tbody>
</table>

5EU = France, Germany, Italy, Spain, and UK; 8MM = US, 5EU, Japan, and Canada
Source: GlobalData: N/A = not available

Sales for CVT-301 in the Parkinson’s Disease Market

Civitas is expected to launch CVT-301 in the US market in 2018. In its first year, sales of CVT-301 in the Parkinson’s disease market are projected to reach $68.4 million. By 2022, global sales are projected to increase to $460.1 million.

Key factors affecting the sales of CVT-301 will include:

- Creates a niche within the PD market for immediate treatment of OFF episodes
- ARCUS technology is difficult to imitate, likely delaying or eliminating market entry from generics
- Cited by KOLs as one of the most promising pipeline products for PD patients

Major barriers of growth for CVT-301 in the PD market over the forecast period include:

- Limited formulations for product may narrow the potential market
- Civitas will likely require partnership for the financial support to push product through late stages of clinical trials, and in order to further develop, market, and sell CVT-301.
- KOLs express concern over toxicity for chronic use of inhaled medication.

The figure below presents the global CVT-301 sales by region in 2022.

Sales for CVT-301 by Region, 2022

<p>| | |</p>
<table>
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<tbody>
<tr>
<td><strong>2022 Total</strong>: $460.1m</td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>82.5%</td>
</tr>
<tr>
<td>5EU</td>
<td>17.5%</td>
</tr>
</tbody>
</table>

Source: GlobalData.
Executive Summary

What Do the Physicians Think?

Physicians state that motor complications remain a major unmet need in the treatment of Parkinson’s disease.

“What wearing-off wouldn’t be a problem, if the patients do not develop severe dyskinesia. Because if you can control dyskinesia, then you can use the drug [at a] high enough [dose] to control any motor fluctuation. So wearing-off itself, it’s easier to treat. The problem is most patients with wearing-off, they do have dyskinesia too, and when you try to adjust the dose in order to control wearing-off, then the patient may develop dyskinesia, or a worsening form of dyskinesia.”

[EU] KOL, November 2013

“I think sometimes we’re a bit dismissive in saying we don’t see the motor complications that we used to see, and I think that’s true, because we’ve got a range of different drugs. But, some people are really still struggling. Twenty percent of the day they’re OFF, [while] twenty percent of the day they’re dyskinetic. That’s forty percent of the day that’s bad for them, and we say, ‘well, it’s not as bad as the bad ol’ days,’ but it’s still pretty bad for them… We still don’t really have an oral drug that is anti-dyskinetic.”

[EU] KOL, October 2013

“The most challenging [unmet need]… Every day I see a few patients for whom treatment is very challenging to me, particularly patients with marked wearing-off, with dyskinesia during ON, it’s very difficult to treat with the current medication. If they are eligible for deep brain stimulation, it’s okay, but patients over [age] 75, with marked wearing-off, dyskinesia, falling down, and freezing, it’s very difficult to treat. And it’s very challenging.”

[OUS] KOL, November 2013

Physicians believe that the introduction of slow-release levodopa will have a significant impact on the market and be preferred over immediate-release formulations.

“Extended-release levodopa will take the place of regular drugs [immediate-release levodopa]. Even in the early phase of the disease, they are better for patients and will reduce the amount of fluctuations in later disease, as they progress. If they [slow-release levodopa therapies] were available, I would prescribe them over the immediate-release formulations [in early stage].”

[OUS] KOL, November 2013

“If extended release of levodopa are available we may choose such agents as initial therapies, not only in advanced cases but as initial therapy.”

[OUS] KOL, November 2013
Executive Summary

Current therapeutic options are limited to symptomatic control and do not treat the underlying disease. Although there are no late-stage therapies that will be launched to meet this need during the forecast period, physicians believe that early pipeline agents hold the promise of becoming one of the most significant advancements for PD in recent history.

“At this point, it’s not [enough] to show that you can have an improvement of one hour of time. It’s interesting, and it should be the first step. But we [are] wait[ing] for the next step; we [are] wait[ing] for drugs that have disease-modifying properties. Meaning that if we take [these drugs], we can have a better fate than not having these drugs for six month[s] or one year… I’m afraid that if a drug could arrive on the market, it will not have a huge impact if it just [demonstrates] symptomatic improvement of one hour of time.”

[EU] KOL, November 2013

“Current treatment options are all symptomatic treatments, therefore many people want to discover disease-modifying treatments for Parkinson’s disease, but none have been successful yet.”

[OUS] KOL, November 2013
Table of Contents

1 Table of Contents

1.1 List of Tables ................................................................. 9
1.2 List of Figures ............................................................... 10

2 Introduction ........................................................................ 11
2.1 Catalyst ........................................................................... 11
2.2 Related Reports ............................................................... 11

3 Disease Overview ............................................................... 14
3.1 Etiology and Pathophysiology .......................................... 14
3.1.1 Etiology ....................................................................... 14
3.1.2 Pathophysiology .......................................................... 17
3.1.3 Prognosis ..................................................................... 19
3.1.4 Quality of Life ............................................................. 20
3.2 Symptoms ....................................................................... 20

4 Disease Management ........................................................... 22
4.1 Overview .......................................................................... 22
4.1.1 Diagnosis – The UK Brain Bank Criteria ......................... 22
4.1.2 Treatment Guidelines and Leading Prescribed Drugs ....... 23
4.2 Treatment Synopsis .......................................................... 26
4.2.1 Dopaminergic Therapy Classes .................................... 26
4.2.2 Treatment of Parkinson’s Disease by Stage .................... 28
4.2.3 Other Treatment Options ............................................. 31
# Table of Contents

4.3  Parkinson’s Disease Assessment Scales ................................................................. 31

4.3.1 Unified Parkinson’s Disease Rating Scale (UPDRS) ............................................... 32

4.3.2 Hoehn and Yahr Clinical Staging ............................................................................ 34

4.3.3 Other Clinical Assessments ................................................................................... 35

5  Competitive Assessment ............................................................................................. 36

5.1 Overview .................................................................................................................... 36

5.2 Strategic Competitor Assessment ............................................................................. 38

6  Opportunity and Unmet Need ...................................................................................... 39

6.1 Overview ..................................................................................................................... 39

6.2 Treatment of Motor Complications – Dyskinesias and OFF Episodes ..................... 41

6.2.1 Unmet Need ........................................................................................................... 41

6.2.2 Gap Analysis ......................................................................................................... 43

6.2.3 Opportunity ............................................................................................................ 46

6.3 Treatment of Non-Motor Symptoms and Dementia ............................................... 46

6.3.1 Unmet Need ........................................................................................................... 46

6.3.2 Gap Analysis ......................................................................................................... 47

6.3.3 Opportunity ............................................................................................................ 49

6.4 Neuroprotective/Disease-Modifying Agents ............................................................ 49

6.4.1 Unmet Need ........................................................................................................... 49

6.4.2 Gap Analysis ......................................................................................................... 50

6.4.3 Opportunity ............................................................................................................ 53

6.5 Improved Drug Formulations .................................................................................. 54

6.5.1 Unmet Need ........................................................................................................... 54
Table of Contents

6.5.2 Gap Analysis ............................................................................................................................................. 54
6.5.3 Opportunity ............................................................................................................................................... 55
6.6 Identification of Reliable Biomarkers ........................................................................................................... 55
  6.6.1 Unmet Need ............................................................................................................................................... 55
  6.6.2 Gap Analysis ........................................................................................................................................... 56
  6.6.3 Opportunity ........................................................................................................................................... 57
6.7 Improved Clinical Trial Design ..................................................................................................................... 57
  6.7.1 Unmet Need ............................................................................................................................................... 57
  6.7.2 Gap Analysis ........................................................................................................................................... 58
  6.7.3 Opportunity ........................................................................................................................................... 58
7 Pipeline Assessment ......................................................................................................................................... 59
  7.1 Overview ..................................................................................................................................................... 59
  7.2 Promising Drugs in Clinical Development ............................................................................................... 59
8 CVT-301 ............................................................................................................................................................ 62
  8.1 Overview ..................................................................................................................................................... 62
  8.2 Efficacy ....................................................................................................................................................... 63
  8.3 Safety .......................................................................................................................................................... 64
  8.4 Dosing and Formulation ............................................................................................................................... 64
  8.5 Potential Clinical Positioning ....................................................................................................................... 64
  8.6 Potential Commercial Positioning ............................................................................................................... 65
  8.7 Pricing and Reimbursement ......................................................................................................................... 66
  8.8 SWOT Analysis .......................................................................................................................................... 66
  8.9 Forecast ....................................................................................................................................................... 67
# 1.1 List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Symptoms of Parkinson’s Disease</td>
<td>21</td>
</tr>
<tr>
<td>2</td>
<td>UK Brain Bank Diagnostic Criteria</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>Diagnosis and Treatment Guidelines for Parkinson’s Disease</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>Most Prescribed Drugs for Parkinson’s Disease by Class in the Global Markets, 2014</td>
<td>25</td>
</tr>
<tr>
<td>5</td>
<td>Dopaminergic Therapy in Parkinson’s Disease</td>
<td>28</td>
</tr>
<tr>
<td>6</td>
<td>UPDRS Clinical Assessment of Disease Severity</td>
<td>33</td>
</tr>
<tr>
<td>7</td>
<td>Parkinson’s Disease Assessment Scales Used in Clinical Trials</td>
<td>35</td>
</tr>
<tr>
<td>8</td>
<td>Treatment of Motor Symptoms in Parkinson’s Disease</td>
<td>37</td>
</tr>
<tr>
<td>9</td>
<td>Leading Treatments for Parkinson’s Disease, 2014</td>
<td>38</td>
</tr>
<tr>
<td>10</td>
<td>Unmet Need and Opportunity in Parkinson’s Disease</td>
<td>40</td>
</tr>
<tr>
<td>11</td>
<td>Dyskinesia Pipeline, 2014</td>
<td>45</td>
</tr>
<tr>
<td>12</td>
<td>Dementia Pipeline, 2014</td>
<td>48</td>
</tr>
<tr>
<td>13</td>
<td>Parkinson’s Disease-Modifying Therapeutics Pipeline, 2014</td>
<td>52</td>
</tr>
<tr>
<td>14</td>
<td>Product Profile – CVT-301</td>
<td>63</td>
</tr>
<tr>
<td>15</td>
<td>CVT-301 SWOT Analysis, 2014</td>
<td>66</td>
</tr>
<tr>
<td>16</td>
<td>Global Sales Forecasts ($m) for CVT-301, 2012–2022</td>
<td>67</td>
</tr>
<tr>
<td>17</td>
<td>Key Patent Expiries</td>
<td>79</td>
</tr>
</tbody>
</table>
1.2 List of Figures

Figure 1: Overview – L-dopa Metabolism and Inhibitor Classes.................................................................27
Figure 2: Overview – Treatment of Motor Symptoms of Parkinson’s Disease ............................................29
Figure 3: Pharmacokinetics of Levodopa ......................................................................................................42
Figure 4: Parkinson’s Disease – Phase II–III Pipeline, Segmented by Indication, 2014 ...............................60
Figure 5: Competitive Assessment of Late-Stage Pipeline Agents in Parkinson’s Disease, 2012–2022 .......61
Introduction

2 Introduction

2.1 Catalyst

The Parkinson’s disease market is expected to grow from $3.6 billion to $5.3 billion over the 10-year forecast period. A major driving force behind this is the increase in the global population and advancements in healthcare that contribute to an aging population at increased risk for Parkinson’s disease. The population of Parkinson’s disease patients is expected to increase from 3.2 million people in 2012 to 4.3 million in 2022 in the eight major markets covered. The market for Parkinson’s disease is expected to grow as it is the second most common neurological disorder, with an increased prevalence in the elderly.

Parkinson’s disease has had a history of successful drugs that are highly effective; however, unmet needs remain. Advancements in technology and drug delivery systems have driven growth in this market during the forecast period and made it a less risky market than other neurological conditions, while still holding potential for a big payout. While all products to this point have treated the signs and symptoms of Parkinson’s disease rather than the underlying condition, the growing understanding of the nervous system holds promise for a breakthrough in the development of disease-modifying agents. Ample opportunity in the Parkinson’s disease market remains. As most products have been launched by collaborative efforts of at least two companies, we expect such strategic partnerships to continue during the coming decade in the market for Parkinson’s disease.

2.2 Related Reports

- GlobalData (2013) EpiCast: Parkinson’s Disease – Epidemiology Forecast to 2022, November 2013, GDHCER043
Introduction

- GlobalData (2014). Madopar (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC389DFR
- GlobalData (2014). Sinemet (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC390DFR
- GlobalData (2014). Duodopa (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC391DFR
- GlobalData (2014). Stalevo/Comtan (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC392DFR
- GlobalData (2014). Neupro (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC393DFR
- GlobalData (2014). Requip/Requip XL (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC394DFR
- GlobalData (2014). Apokyn (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC395DFR
- GlobalData (2014). Azilect (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC396DFR
- GlobalData (2014). Nouriast (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC397DFR
- GlobalData (2014). Safinamide (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC398DFR
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- GlobalData (2014). Tozadenant (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC399DFR
- GlobalData (2014). Rytary/IPX066 (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC401DFR
- GlobalData (2014). Opicapone (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC402DFR
- GlobalData (2014). Mavoglurant/AFQ056 (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC403DFR
- GlobalData (2014). CD/LD-GR (Parkinson’s Disease) – Forecast and Market Analysis to 2022, March 2014, GDHC404DFR
Appendix

9.7 About GlobalData

GlobalData is a leading global provider of business intelligence in the Healthcare industry. GlobalData provides its clients with up-to-date information and analysis on the latest developments in drug research, disease analysis, and clinical research and development. Our integrated business intelligence solutions include a range of interactive online databases, analytical tools, reports and forecasts. Our analysis is supported by a 24/7 client support and analyst team.

GlobalData has offices in New York, Boston, London, India and Singapore.

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