

# NEUROVIVE PHARMACEUTICAL

## First subject enrolled

The main event of Q1, in our view, was the first enrolment of a healthy volunteer in the phase I trial with of KL1333. We expect to see initial results from the study before the end of 2019. Q1 operating cash flow was a negative cSEK13m, in line with Q1 last year, and slightly less negative than our estimate. However, we expect increasing losses as the company continues to ramp up clinical activities. As a result of the increased number of shares in Q1, we have adjusted our fair value range to SEK1.55–4.46 (SEK1.57–4.49)

**First subject enrolled in the first part of phase I study of KL1333.** Although it is still in early development, we see potential in this asset as it has been demonstrated in preclinical studies that KL1333 can increase intracellular levels of NAD+. The now initiated phase I study will evaluate a multiple ascending dose in healthy volunteers as well as in patients with genetic mitochondrial disease. Up to five groups of healthy volunteers with eight individuals in each group are planned to be recruited, followed by one group of eight patients with mitochondrial disease for a second part of the study. The purpose of the study is to investigate the safety and pharmacokinetics of KL1333. NeuroVive will also evaluate biomarkers, but management has made it clear that it does not accept the evaluation of biomarkers as providing any indications on efficacy.

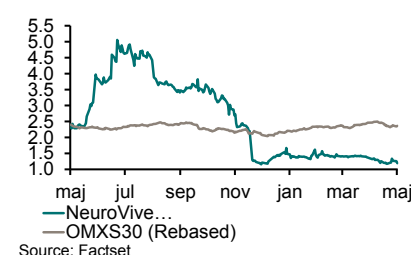
**Approved IND for NeuroSTAT.** Since the end of Q1, the FDA has approved NeuroVive's IND for NeuroSTAT, which means that the company is allowed to conduct clinical studies with this asset in the US. This came as no surprise to us since the active product ingredient has been proven safe in TBI patients as well as in hundreds of thousands of patients in other indications.

**Directed share issue in Q1.** Following the directed share issue in Q1, which contributed cSEK26m in cash to the company, we have adjusted for the new number of shares in our valuation. Cash and cash equivalents amounted to cSEK113m at the end of Q1. We continue to base our valuation on a risk-adjusted DCF model to calculate fair values in a bear-case and a bull-case scenario, and we have cut our fair value range to SEK1.55–4.46 (SEK1.57–4.49).

Year-end Dec	2015	2016	2017	2018	2019e	2020e	2021e
Revenue (SEKm)	3	0	0	nm	nm	nm	nm
EBITDA adj (SEKm)	-91	-72	-71	-76	-104	-122	-176
EBIT adj (SEKm)	-91	-72	-71	-73	-103	-120	-175
PTP (SEKm)	-91	-72	-71	-73	-103	-120	-175
EPS rep (SEK)	-3.01	-1.67	-1.33	-0.94	-0.62	-0.40	-0.58
Revenue growth (%)	-63.7	-96.1	133.1	nm	nm	nm	nm
EV/Sales adj (x)	65.41	nm	nm	nm	nm	nm	nm

Source: Company (historical figures), DNB Markets (estimates)

NVP versus OMXS30 (12m)



### SUMMARY

Share price (SEK)	1.19
Tickers	NVP SS, NVP.ST

### CAPITAL STRUCTURE

No. of shares fully dil. (m)	186.0
NIBD adj end-2019e (SEKm)	0

Source: Company, DNB Markets (estimates)

Note: Unless otherwise stated, the share prices in this note are the last closing price.

### NEXT EVENT

Q1 2019 report	21/08/2019
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### ESTIMATE CHANGES (SEK)

Year-end Dec	2019e	2020e	2021e
Sales (old)	0.00	0.00	0.00
Sales (new)	0.00	0.00	0.00
Change (%)	nm	nm	nm
Change (%)	nm	nm	nm

Source: DNB Markets,

This report has been commissioned and paid for by the company, and is deemed to constitute an acceptable minor non-monetary benefit as defined in MiFID II

### ANALYSTS

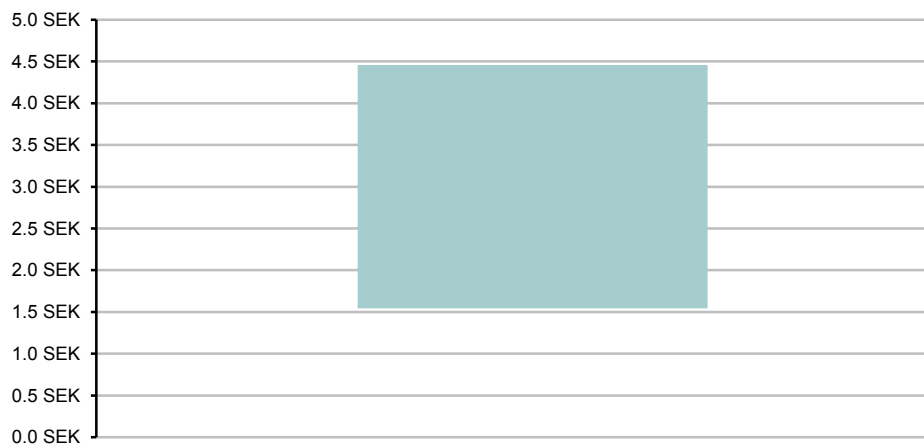
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# Overview

## Valuation – fair value range per share SEK1.55–4.46



Source: DNB Markets

### Downside risks to our fair value

- We believe the key risks are the outcomes of future efficacy trials. Today, there is very limited clinical data supporting the efficacy of either NeuroSTAT or KL1333.
- Delays in clinical development could have a major share price impact.
- There is a high execution risk in both scenarios since all of the company's assets are in early-stage development.

Source: DNB Markets

### DNB Markets estimates

- For KL1333 we assume a price per patient per year of USD50,000 in the EU and USD100,000 in the US. We assume the same price for a one-time treatment with NeuroSTAT.
- In our bull case, we estimate a peak penetration of 50% in both the US and the EU for MELAS. We estimate off-label usage of 15% and 35%, respectively, in other target indications.
- In our bear case, we estimate a peak penetration of 35% in both the US and the EU for MELAS. We estimate off-label usage of 15% and 35%, respectively, in other target indications.

Source: DNB Markets

### Valuation methodology

- We continue to use a risk-adjusted DCF approach with a bull-case and a bear-case scenario. We discount the value with a WACC of 10% and apply a tax rate of 22% on all future sales.
- In our bull case, we assume an LOA of 15% for KL1333 in MELAS and 5% in other target indications.
- In our bear case, we assume an LOA of 10% for KL1333 in MELAS and 5% in other target indications.

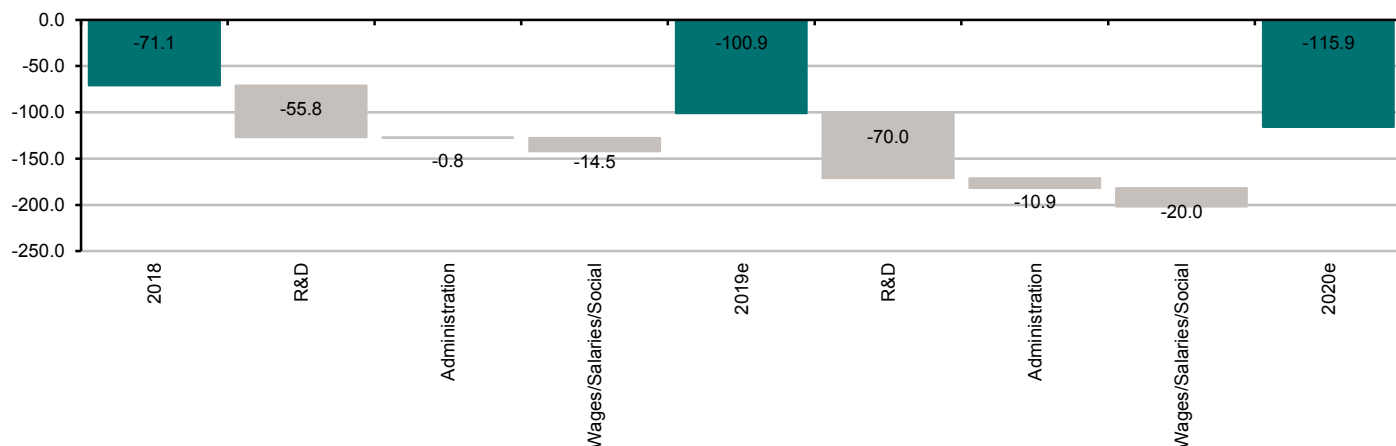
Source: DNB Markets

### Upside risks to our fair value

- Higher sales of KL1333 and/or NeuroSTAT due to a higher price being charged if promising outcomes are shown in pivotal trials.
- Clinical development can be sped up if patients can be recruited to trials faster than anticipated or due to a potential breakthrough designation.
- The company, or one of its assets, is acquired by a large pharma company.

Source: DNB Markets

## Operating cost base bridge 2018–2020e (SEKm)



Source: DNB Markets (forecasts), company (historical data)

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## Forecast changes – P&amp;L

(SEKm)	New			Old			Change		
	2019e	2020e	2021e	2019e	2020e	2021e	2019e	2020e	2021e
Revenues	0	0	0	0	0	0	0	0	0
Cost of sales	0	0	1	0	0	1	0	0	0
Gross profit	0	0	1	0	0	1	0	0	0
Operating expenses	-101	-116	-171	-101	-116	-171	0	0	0
EBITDA	-104	-122	-177	-104	-122	-177	0	0	0
EBITDA adj	-104	-122	-176	-104	-122	-176	0	0	0
EBITDA margin (%)	nm	nm	nm	high	high	high	nm	nm	nm
Depreciation	-3	-6	-6	-3	-6	-6	0	0	0
EBITA	-107	-128	-183	-107	-128	-183	0	0	0
Amortisation	0	0	1	0	0	1	0	0	0
EBIT	-103	-120	-175	-103	-120	-175	0	0	0
EBIT adj	-103	-120	-175	-103	-120	-175	0	0	0
Net interest	0	0	0	0	0	0	0	0	0
Net financial items	0	0	0	0	0	0	0	0	0
PBT	-103	-120	-175	-103	-120	-175	0	0	0
Taxes	0	0	0	0	0	0	0	0	0
Net profit	-103	-120	-175	-103	-120	-175	0	0	0
Adjustments to net profit	0	0	1	0	0	1	0	0	0
Net profit adj	-103	-120	-175	-103	-120	-175	0	0	0
<i>Per share data (SEK)</i>									
EPS	-0.62	-0.40	-0.58	-0.62	-0.40	-0.58	0.00	0.00	0.00
<i>Other key metrics (%)</i>									
Revenue growth	nm	nm	nm	nm	nm	nm	nm	nm	nm
EBIT adj growth	nm	nm	nm	40.0	17.3	45.6	nm	nm	nm
EPS adj growth	nm	nm	nm	nm	nm	nm	nm	nm	nm
OpFCF	-104	-122	-176	-104	-122	-176	0	0	0
Working capital	0	3	0	0	3	0	0	0	0
NIBD adj	0	0	0	-45	-45	-46	45	45	46

Source: DNB Markets

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**Quarterly numbers****(SEKm)****Gross profit**

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Operating expenses

**EBITDA****EBITA****EBIT**

Net interest

Net financial items

**PBT**

Taxes

**Net profit**

Adjustments to net profit

Net profit adj

*Per share data (SEK)**Growth and margins (%)*

Revenues, QOQ growth

Revenues, YOY growth

EPS adj, YOY growth

Gross margin

EBITDA adj margin

Depreciation/revenues

EBIT adj margin

Net profit margin

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Source: Company (historical figures), DNB Markets (estimates)

**Adjustments to quarterly numbers****(SEKm)**

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**EBITDA**

EBITDA adj

**EBITA**

Other EBITA adjustments

EBITA adj

**EBIT**

EBIT adj

**Net profit**Net profit adj

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Source: Company (historical figures), DNB Markets (estimates)

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Annual P&L

(SEKm)	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
<b>Revenues</b>	1	7	8	3	0	0	0	0	0	0
Cost of sales	0	0	0	0	0	0	0	0	0	1
<b>Gross profit</b>	1	7	8	3	0	0	0	0	0	1
Operating expenses	-18	-29	-53	-93	-71	-70	-71	-101	-116	-171
<b>EBITDA</b>	-16	-22	-45	-91	-72	-71	-76	-104	-122	-177
Depreciation	0	0	0	-1	-1	-2	-5	-3	-6	-6
<b>EBITA</b>	-17	-22	-46	-93	-73	-73	-81	-107	-128	-183
Amortisation		0	0	0	0	0	0	0	0	1
<b>EBIT</b>	-16	-22	-45	-91	-72	-71	-73	-103	-120	-175
Net interest	0	0	0	0	0	0	0	0	0	0
Net financial items	0	0	0	0	0	0	0	0	0	0
<b>PBT</b>	-16	-22	-45	-91	-72	-71	-73	-103	-120	-175
Taxes	0	0	0	0	0	0	0	0	0	0
Effective tax rate (%)	0	0	0	0	0	0	0	0	0	0
<b>Net profit</b>	-16	-22	-45	-91	-72	-71	-73	-103	-120	-175
Adjustments to net profit	0	0	0	-1	2	0	0	0	0	1
Net profit adj	-16	-22	-46	-92	-70	-71	-73	-103	-120	-175
<i>Per share data (SEK)</i>										
EPS	-0.85	-1.17	-1.53	-3.01	-1.67	-1.33	-0.94	-0.62	-0.40	-0.58
<i>Growth and margins (%)</i>										
Revenue growth	-76.3	422.1	20.2	-63.7	-96.1	133.1	nm	nm	nm	nm
EPS adj growth	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
Gross margin	100.0	100.0	100.0	100.0	100.0	100.0	nm	nm	nm	nm
EBITDA margin	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
EBITDA adj margin	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
Depreciation/revenues	-9.6	-2.1	-5.3	-39.7	-950.0	-580.0	nm	nm	nm	nm
EBIT margin	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
EBIT adj margin	-1242.4	-322.3	-543.1	-3024.7	nm	nm	nm	nm	nm	nm
PBT margin	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm
Net profit margin	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm

Source: Company (historical figures), DNB Markets (estimates)

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## Adjustments to annual P&amp;L

(SEKm)	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
<b>EBITDA</b>	<b>-16</b>	<b>-22</b>	<b>-45</b>	<b>-91</b>	<b>-72</b>	<b>-71</b>	<b>-76</b>	<b>-104</b>	<b>-122</b>	<b>-177</b>
Other EBITDA adjustments						0	0	0	0	1
EBITDA adj	-16	-22	-45	-91	-72	-71	-76	-104	-122	-176
<b>EBITA</b>	<b>-17</b>	<b>-22</b>	<b>-46</b>	<b>-93</b>	<b>-73</b>	<b>-73</b>	<b>-81</b>	<b>-107</b>	<b>-128</b>	<b>-183</b>
Other EBITA adjustments						0	0	0	0	1
EBITA adj	-17	-22	-46	-93	-73	-73	-81	-107	-128	-182
<b>EBIT</b>	<b>-16</b>	<b>-22</b>	<b>-45</b>	<b>-91</b>	<b>-72</b>	<b>-71</b>	<b>-73</b>	<b>-103</b>	<b>-120</b>	<b>-175</b>
Other EBIT adjustments		0	0	0	0	0	0	0	0	1
EBIT adj	-16	-22	-45	-91	-72	-71	-73	-103	-120	-175
<b>Net profit</b>	<b>-16</b>	<b>-22</b>	<b>-45</b>	<b>-91</b>	<b>-72</b>	<b>-71</b>	<b>-73</b>	<b>-103</b>	<b>-120</b>	<b>-175</b>
Other EBIT adjustments		0	0	0	0	0	0	0	0	1
Tax adjustments		0	0	0	0	0	0	0	0	0
Other adjustments	0	0	0	-1	2	0				
Net profit adj	-16	-22	-46	-92	-70	-71	-73	-103	-120	-175
<i>Per share data (SEK)</i>										
EPS	-0.85	-1.17	-1.53	-3.01	-1.67	-1.33	-0.94	-0.62	-0.40	-0.58

Source: Company (historical figures), DNB Markets (estimates)

## Cash flow

(SEKm)	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
Net profit	-16	-22	-45	-91	-72	-71	-73	-103	-120	-175
Depreciation and amortisation		0	0	1	1	2	5	3	6	5
Other non-cash adjustments	1	1	0	29	28	11	11	0	0	1
<b>Cash flow from operations (CFO)</b>	<b>-16</b>	<b>-21</b>	<b>-45</b>	<b>-61</b>	<b>-43</b>	<b>-59</b>	<b>-64</b>	<b>-101</b>	<b>-119</b>	<b>-174</b>
<b>Cash flow from investing (CFI)</b>	<b>-10</b>	<b>-80</b>	<b>-201</b>	<b>-23</b>	<b>-25</b>	<b>-15</b>	<b>-4</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Free cash flow (FCF)</b>	<b>-26</b>	<b>-101</b>	<b>-246</b>	<b>-85</b>	<b>-68</b>	<b>-74</b>	<b>-68</b>	<b>-101</b>	<b>-119</b>	<b>-174</b>
<b>Cash flow from financing (CFF)</b>	<b>46</b>	<b>34</b>	<b>77</b>	<b>120</b>	<b>77</b>	<b>9</b>	<b>65</b>	<b>121</b>	<b>119</b>	<b>174</b>
<b>Total cash flow (CFO+CFI+CFF)</b>	<b>24</b>	<b>3</b>	<b>10</b>	<b>47</b>	<b>-3</b>	<b>-64</b>	<b>-3</b>	<b>20</b>	<b>0</b>	<b>0</b>
<i>FCFF calculation</i>										
Free cash flow	-26	-101	-246	-85	-68	-74	-68	-101	-119	-174
Less: net interest	0	0	0	0	0	0	0	0	0	0
<b>Growth (%)</b>										
CFO	-53.7	-32.8	-112.5	-37.6	30.5	-37.5	-8.9	-58.4	-17.6	-46.3
CFI	-43.3	-719.3	-152.8	88.4	-6.8	39.0	74.7	100.0	nm	nm
FCF	-49.6	-294.3	-144.4	65.5	20.2	-9.2	8.4	-49.3	-17.6	-46.3
CFF	11198.0	-27.5	128.0	56.1	-35.3	-88.3	615.9	87.2	-1.8	46.3
FCFF	nm	nm	nm	nm	nm	nm	nm	nm	nm	nm

Source: Company (historical figures), DNB Markets (estimates)

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### Balance sheet

(SEKm)	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
<b>Assets</b>	<b>72</b>	<b>89</b>	<b>131</b>	<b>175</b>	<b>181</b>	<b>120</b>	<b>115</b>	<b>152</b>	<b>165</b>	<b>187</b>
Other receivables	1	1	1	2	2	2	1	0	3	0
Cash and cash equivalents	37	40	50	97	93	29	26	46	46	46
<b>Current assets</b>	<b>38</b>	<b>42</b>	<b>51</b>	<b>100</b>	<b>96</b>	<b>33</b>	<b>27</b>	<b>46</b>	<b>49</b>	<b>46</b>
Property, plant and equipment	1	0	0	0	0	0	0	0	0	0
Other intangible assets	33	47	80	75	71	74	73	92	102	127
Non-current financial assets	0	0	0	0	13	13	0	0	0	1
<b>Non-current assets</b>	<b>33</b>	<b>48</b>	<b>80</b>	<b>75</b>	<b>85</b>	<b>88</b>	<b>74</b>	<b>93</b>	<b>103</b>	<b>129</b>
<b>Total assets</b>	<b>72</b>	<b>89</b>	<b>131</b>	<b>175</b>	<b>181</b>	<b>120</b>	<b>115</b>	<b>152</b>	<b>165</b>	<b>187</b>
<b>Equity and liabilities</b>	<b>72</b>	<b>89</b>	<b>131</b>	<b>175</b>	<b>181</b>	<b>120</b>	<b>115</b>	<b>152</b>	<b>165</b>	<b>187</b>
Total equity to the parent	64	75	103	141	155	101	97	132	152	154
Minority interests	-1	-1	5	14	13	5				
<b>Total equity</b>	<b>63</b>	<b>75</b>	<b>108</b>	<b>155</b>	<b>168</b>	<b>106</b>	<b>97</b>	<b>132</b>	<b>152</b>	<b>154</b>
Short-term debt	8	15	23	20	12	14	0	0	0	0
<b>Total current liabilities</b>	<b>8</b>	<b>15</b>	<b>23</b>	<b>20</b>	<b>12</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total non-current liabilities</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total liabilities</b>	<b>8</b>	<b>15</b>	<b>23</b>	<b>20</b>	<b>12</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total equity and liabilities</b>	<b>72</b>	<b>89</b>	<b>131</b>	<b>175</b>	<b>181</b>	<b>120</b>	<b>115</b>	<b>152</b>	<b>165</b>	<b>187</b>

### Key metrics

Source: Company (historical figures), DNB Markets (estimates)

### Valuation ratios

(SEKm)	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
<i>Enterprise value</i>										
Share price (SEK)		12.35	36.13	6.80	2.70	2.41	1.25	1.19	1.19	1.19
Number of shares (m)	19.16	21.66	27.79	29.09	49.46	52.33	78.18	165.1	300.0	301.0
Market capitalisation		267	1,004	198	133	126	98	196	357	358
Net interest bearing debt adj	0	0	0	0	0	0	0	0	0	0
EV adj		267	1,004	198	133	126	98	196	357	358
<i>Valuation</i>										
EPS	-0.85	-1.17	-1.53	-3.01	-1.67	-1.33	-0.94	-0.62	-0.40	-0.58
P/E		-10.6	-23.6	-2.3	-1.6	-1.8	-1.3	-1.9	-3.0	-2.0
Average ROE	-34.5%	-32.5%	-49.6%	-69.7%	-44.6%	-51.9%	-72.3%	-89.5%	-84.6%	-114.3%
Earnings yield adj		-9.5%	-4.2%	-44.3%	-61.9%	-55.1%	-75.3%	-52.3%	-33.7%	-49.0%
EV/SALES adj		38.58	120.47	65.41	1129.96	459.05				
EV/EBITDA adj		-12.0	-22.2	-2.2	-1.8	-1.8	-1.3	-1.9	-2.9	-2.0
EV/EBIT adj		-12.0	-22.2	-2.2	-1.8	-1.8	-1.3	-1.9	-3.0	-2.0

Source: Company (historical figures), DNB Markets (estimates)

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## Key accounting ratios

	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e
<i>Profitability (%)</i>										
ROA	-31.2	-27.8	-41.1	-59.7	-40.6	-47.3	-62.3	-77.0	-76.3	-100.0
<i>Return on invested capital (%)</i>										
Net PPE/revenues	50.1	6.6	4.1	10.4	232.2	58.9				
Working capital/revenues	55.3	15.8	13.5	78.3	1398.3	570.2				
<i>Cash flow ratios (%)</i>										
FCF/revenues	-1920.7	-1450.8	-2949.8	-2802.8	-57352.5	-26872.4				
FCF/market capitalisation		-37.6	-24.5	-42.8	-50.8	-58.5	-69.4	-51.5	-33.3	-48.5
CFO/revenues	-1188.9	-302.4	-534.6	-2027.5	-36136.4	-21316.4				
CFO/market capitalisation		-7.8	-4.4	-31.0	-32.0	-46.4	-65.4	-51.5	-33.3	-48.5
CFO/current liabilities	-186.6	-144.3	-190.2	-304.3	-343.5	-411.1				
Cash conversion ratio	154.6	450.1	543.2	92.7	93.9	104.0	92.3	98.4	98.7	99.1
OpFCF margin	-1242.4	-322.3	-543.1	-3024.7	-61110.2	-25850.2				
<i>Leverage and solvency (x)</i>										

Source: Company (historical figures), DNB Markets (estimates)



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## Important Information

Company: NeuroVive Pharmaceutical  
 Coverage by Analyst: Patrik Ling  
 Date: 22/05/2019

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	Buy	Hold	Sell	No rec	Total
Number	141	59	34	15	249
% of total	57%	24%	14%	6%	
DNB Markets client	27%	8%	2%	2%	99

23 May 2019

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