

PHARMENA S.A.



Fair value: PLN 20.30

Update

Rating: n.a.

On 12 June, PHARMENA finally received the approval by the European Commission for its 1-MNA dietary supplement. The company, which according to management is already prepared organizationally to start sales, plans to generate first revenues in Poland in Q4/18E and in other European countries in 2019E. While the European market for food supplements is large (EUR 6bn in 2017; CAGR 17-20E of 9.5%), we expect that the EU approval will also allow PHR to enter the Middle East soon. Thus, upon raising the necessary financing in H2/18 PHR, which has exclusivity for 1-MNA dietary supplements in Europe until 2023E and patent protection worldwide until 2025E-27E, should be able to roll-out international sales very fast. Our new FV of PLN 20.30 (previously: PLN 19.70) is based on the following assumptions: (1) higher profitability from 2018E due to much better-than-expected Q1/18 and higher long-term sales growth of the dietary supplement (2) lower weight of the Cardiovascular application (10% vs. 33.3% before) in the NPV of TRIA-662 as we now believe that a potential partnering deal will only include the NASH and PAH applications and (3) issue of 2.64m new shares in H2/18. We have valued the Dermocosmetics & dietary supplement segment at PLN 10.88 per share and TRIA-662 at PLN 7.59.

PHR's Q1/18 results were strong due to significantly higher export sales y-o-y and a more efficient cost structure. While consol. sales amounted to PLN 3.7m (+37.6% y-o-y), EBIT (PLN 0.9m vs. PLN -0.5m in Q1/17) and net income (PLN 0.7m vs. PLN -0.6m) improved y-o-y due to a much lower share of distribution and administration expenses. At the end of Q1/18, net debt equaled PLN 3.2m compared to PLN 3.5m as of 31/12/2017.

In Q2/18, PHR finally received the green light for its 1-MNA dietary supplement from the EC, however discussions with Big Pharma regarding the TRIA-662 1-MNA drug continue. We expect a quick international roll-out of the new product until 2023E. Regarding the 1-MNA drug TRIA-662, we believe that a potential licensing deal in the area of Cardiovascular seems increasingly unlikely. In our view, in the most pessimistic scenario PHR will conduct the Phase III for the drug itself, but only in the NASH and PAH applications, whose further development it is able to finance alone.

in PLNm	2012	2013	2014	2015	2016	2017
Net sales	9.13	14.14	14.13	17.47	15.91	12.51
EBITDA	-2.87	-1.19	-3.60	-2.63	-0.87	-1.68
EBIT	-3.01	-1.34	-3.79	-2.84	-1.14	-2.03
Net income	-4.10	-2.84	-4.09	-3.62	-1.66	-2.39
EPS	-0.58	-0.32	-0.46	-0.41	-0.19	-0.27
DPS	0.10	0.11	0.11	0.12	0.12	0.12
Dividend yield	1.07%	1.18%	1.18%	1.28%	1.28%	1.28%
RoE	-46.93%	-21.04%	-26.25%	-33.24%	-22.77%	-50.27%
Net gearing	-34.12%	-60.68%	-30.37%	17.18%	64.70%	98.40%
EV/Sales	7.13x	4.61x	4.61x	3.73x	4.09x	5.21x
EV/EBITDA	neg	neg	neg	neg	neg	neg
P/E	neg	neg	neg	neg	neg	neg

Company profile

PHARMENA is a leading Polish cosmetics and biotech company. Its products contain the 1-MNA substance, for which PHR has secured patent protection on the most important global markets until 2025/27E.

Date of publication	10 July 2018 / 6:20 am
Website	www.pharmena.eu
Sector	Biotechnology
Country	Poland
ISIN	PLPHRMN00011
Reuters	PHR.WA
Bloomberg	PHR PW

Share information

Last price	9.35
Number of shares (m)	8.80
Market cap. (PLNm)	82.23
Market cap. (EURm)	18.96
52-weeks range	PLN 26.88 / PLN 8.90
Average volume	2,020

Performance

4-weeks	-15.00%
13-weeks	-35.07%
26-weeks	-50.27%
52-weeks	-64.85%
YTD	-58.35%

Shareholder structure

Pelion S.A.	58.70%
Jerzy Gebicki	7.69%
Konrad Palka	5.43%
Max Welt Holdings Ltd.	5.29%
Robert Bozyk	5.01%
Free float	17.88%

Financial calendar

H2/18 report	August 13, 2018
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Analyst

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Recent results

Revenues and Profitability

In Q1/18, PHARMENA generated consolidated revenues of PLN 3.7m compared to PLN 2.7m last year. The main reason for the 37.6% increase y-o-y were significantly higher export sales of Dermena products to Asia (a partner from China, who also sells in Macao, Taiwan and Hong Kong, obliged himself to order this year more than twice as much of PHR's dermocosmetics as in 2017). While sales in Poland were flat y-o-y, in February PHARMENA introduced the new 1-MNA Vetoemvit cosmetics brand for dogs on the market.

Consolidated results of PHARMENA

in PLNm	Q1/18	Q1/17	change y-o-y
Net sales	3.70	2.69	37.6%
EBITDA	1.03	-0.44	-332.4%
<i>EBITDA margin</i>	<i>27.9%</i>	<i>-16.5%</i>	
EBIT	0.94	-0.53	-278.3%
<i>EBIT margin</i>	<i>25.5%</i>	<i>-19.7%</i>	
Net income	0.65	-0.62	-205.0%
<i>Net margin</i>	<i>17.7%</i>	<i>-23.1%</i>	

Source: Company information, East Value Research GmbH

Results of the dermocosmetics & dietary supplements segment

in PLNm	Q1/18	Q1/17	change y-o-y
Net sales	3.91	2.93	33.2%
EBITDA	1.35	-0.07	-2050.7%
<i>EBITDA margin</i>	<i>34.4%</i>	<i>-2.4%</i>	
EBIT	1.26	-0.15	-940.0%
<i>EBIT margin</i>	<i>32.2%</i>	<i>-5.1%</i>	

Source: Company information, East Value Research GmbH

Compared to Q1/17, both consolidated EBIT (PLN 943k vs. PLN -529k) and net income (PLN 653k vs. PLN -622k) improved y-o-y, which resulted especially from a significantly lower share of distribution (28.1% vs. 63.4% in Q1/17) and administration expenses (17.3% vs. 27.2%). In the area of dermocosmetics and dietary supplements, profitability was even higher despite the costs associated with the registration and production launch of the 1-MNA dietary supplement.

Balance sheet and Cash flow

At the end of March 2018, PHARMENA had consolidated equity of PLN 4.2m, which corresponded to a share of 43.5% in the balance sheet total. Property, plant and equipment equaled PLN 144k (31/03/2017: PLN 254k), while intangible assets amounted to PLN 707k (PLN 834k). We estimate the working capital at PLN 5.9m (PLN 6.7m). As of 31 March 2018, PHARMENA had interest-bearing debt of PLN 3.4m (PLN 4.2m).

Between January and March 2018, PHARMENA generated an operating cash flow of PLN 384k vs. PLN 807k in the previous year. While cash flow from investing equaled PLN -6k (Q1/17: PLN -156k), cash flow from financing amounted to PLN -311k (PLN -317k) as the company repaid debt. In Q1/18, PHARMENA's consolidated cash position increased by PLN 67k to PLN 288k.

Financial forecasts

Revenues and Profitability

On 12 June 2018, PHARMENA published a press release that the European Commission had approved its 1-MNA dietary supplement for sale in Europe. Although the company is ready both in terms of production capacity (the dietary supplement will be manufactured by a third party, similar to the dermocosmetics) and distribution network, it expects first sales in Poland in Q4/18E and other European countries (first two) in 2019E. As PHARMENA secured all scientific data in H1/18, it has exclusivity to sell 1-MNA dietary supplements until 2023E for all applications. The patent protection for the 1-MNA substance, which covers North America, Europe, Mexico, China, Japan and Australia, holds until 2025E-27E. On 6 July 2018, PHARMENA announced its intention to conduct a private placement of max. 2.64m new shares at a share price at least 20% lower than the market price (we believe the reason is the difficult condition of the Polish stock exchange) in order to finance the international distribution of the 1-MNA dietary supplement, registration in non-European markets and development of new 1-MNA-based products.

Regarding the 1-MNA drug TRIA-662, in the last months no progress has been reported when it comes to discussions with potential licensing partners from the Pharma industry. We believe that in the worst case PHR will develop the drug itself, but only in the Pulmonary Arterial Hypertension and Non-alcoholic Steatohepatitis applications, where Phase III clinical studies are significantly less expensive than in case of the Cardiovascular application. The stage of discussions is now also reflected in our NPV valuation of TRIA-662, where we only weight the Cardiovascular application with 10% (previously 33.3%).

After Q1/18 results, which were surprisingly strong, we have increased our EBIT and net income estimates for 2018E-2021E. In addition, we have decided to increase our long term sales assumptions for the 1-MNA dietary supplement as we believe that the potential global market for this new product is significant. Only in Europe, the market for food supplements was valued at USD 6bn in 2017 (Source: Euromonitor International), with the CAGR 17-20E projected at 9.5% and Eastern Europe being the fastest-growing region. With approval for Europe, PHR should also be able to quickly introduce its 1-MNA dietary supplement in the Middle East.

Below are our detailed estimates for PHR's business segments:

Hair Care: For the Hair Care segment, which also includes sales of the dietary supplement Dermena Complex against hair loss (based on vitamins; does not contain 1-MNA), we now estimate sales of 599.2k packages in full-year 2018E at an EBITDA margin of 25.5% (previously: 599.2k at EBITDA margin of 7%). The reason, why we have increased our profitability forecasts, are the better-than-expected results in Q1/18. While the average sale price should remain stable at PLN 22 and long-term EBITDA margin should reach >25%, we expect an unchanged revenue CAGR of 9.3% by 2026E. In our view, PHR should continue its expansion abroad in order to diversify sales.

Skin Care: For the Skin Care segment, we now forecast sales of 93.8k packages and EBITDA margin of 25.4% in full-year 2018E (previously: 93.8k packages and EBITDA margin of 10%). In our view, the average sales price will remain at PLN 22 in the future. While we still expect that EBITDA margin of the segment will equal >25% going forward, our assumption for the long-term sales CAGR equals 9.2% (unchanged). We believe that the main growth drivers for the Skin Care segment in the short term will be the introduction of new products as well as increasing export sales.

Nail Care: This product line, which was introduced in 2017, comprises the regenerative nail serum Dermena Regenail. We expect that in 2018E it will generate sales of PLN 345k (previously: PLN 345k) and an EBITDA margin of 25.4% (17%). By 2026E, we estimate a sales CAGR of 8.3% (8.3%) and a target EBITDA margin of >25% (>25%).

Vetoemvit: This product line, which was introduced in Q1/18, comprises shampoos and serums for dogs. We expect that in 2018E it will generate sales of PLN 220k (previously: PLN 220k) and an EBITDA margin of 25% (previously: 17%). By 2026E, we estimate a sales CAGR of 34.4% (34.4%) and a target EBITDA margin of >25% (>25%).

Dietary supplement 1-MNA: In mid-June, the European Commission finally gave PHR the green light to introduce its 1-MNA dietary supplement in Europe. An approval in Europe also makes the registration process in the Middle East very easy. In our view, PHR will generate first sales with the new product in Poland in Q4/18E.

However, from 2019E, when the roll-out of sales will start in other European countries, we are now more bullish on sales growth due to the enormous market potential of dietary supplements (Grand View Research: USD 278bn worldwide by 2024E; data includes vitamins, amino acids, minerals and enzymes in tablet, capsule, powder, gel and liquid form) and PHR's patent protection for the 1-MNA substance until 2025E-27E.

For 2018E-2019E, our revenue and profitability forecasts remain unchanged compared to our last update from April 2018. However, we are now more optimistic when it comes to long-term sales growth (CAGR 17-26E of 77.8% vs. 72.3% previously). We still believe that the product will generate EBITDA margins of >25% in the future.

in PLNm	2018E	2019E	2020E	2021E
Hair Care	13.18	14.77	16.54	17.53
(% of net sales)	81.6%	63.2%	51.8%	42.7%
Number of packages sold per year	599,248	671,158	751,697	796,799
Average price in PLN	22	22	22	22
EBITDA margin	25.5%	25.6%	25.7%	25.8%
Skin Care	2.06	2.31	2.59	2.74
(% of net sales)	12.8%	9.9%	8.1%	6.7%
Number of packages sold per year	93,787	105,041	117,646	124,705
Average price in PLN	22	22	22	22
EBITDA margin	25.4%	25.6%	25.7%	25.8%
Nail Care	0.35	0.39	0.43	0.46
(% of net sales)	2.1%	1.7%	1.4%	1.1%
Number of packages sold per year	15,696	17,579	19,689	20,870
Average price in PLN	22	22	22	22
EBITDA margin	25.4%	25.6%	25.7%	25.8%
Vetoemvit	0.22	0.66	1.65	1.75
(% of net sales)	1.4%	2.8%	5.2%	4.3%
Number of packages sold per year	10,000	30,000	75,000	79,500
Average price in PLN	22	22	22	22
EBITDA margin	25.0%	25.3%	25.5%	25.8%
Dietary supplement 1-MNA	0.35	5.25	10.69	18.57
(% of net sales)	2.2%	22.5%	33.5%	45.2%
Number of packages sold per year	10,000	150,000	305,500	530,575
Average price in PLN	35	35	35	35
EBITDA margin	-25.0%	10.0%	16.0%	21.0%
Total net sales	16.16	23.37	31.90	41.05
(change y-o-y)	29.2%	44.6%	36.5%	28.7%

Source: East Value Research GmbH

in PLNm	2018E		2019E		2020E		2021E	
	new	old	new	old	new	old	new	old
Net sales	16.16	16.16	23.37	23.37	31.90	30.92	41.05	34.62
EBITDA	3.94	1.13	5.16	2.90	7.16	5.44	9.70	7.52
<i>EBITDA margin</i>	24.4%	7.0%	22.1%	12.4%	22.4%	17.6%	23.6%	21.7%
EBIT	3.59	0.81	4.65	2.43	6.46	4.82	8.80	6.83
<i>EBIT margin</i>	22.2%	5.0%	19.9%	10.4%	20.2%	15.6%	21.4%	19.7%

Source: East Value Research GmbH

in PLNm	Q1/16	Q2/16	Q3/16	Q4/16	2016	Q1/17	Q2/17	Q3/17	Q4/17	2017	Q1/18
Net sales	2.47	4.15	4.47	4.82	15.91	2.69	3.52	2.88	3.42	12.51	3.70
<i>y-o-y change</i>	-38.6%	8.9%	-5.1%	-2.0%	-8.9%	8.7%	-15.1%	-35.6%	-29.0%	-21.4%	37.6%
EBITDA	-1.21	-0.10	0.35	0.09	-0.87	-0.44	-0.66	-0.15	-0.43	-1.68	1.03
<i>EBITDA margin</i>	-48.7%	-2.3%	7.7%	1.8%	-5.5%	-16.5%	-18.7%	-5.1%	-12.5%	-13.4%	27.9%
EBIT	-1.27	-0.16	0.28	0.01	-1.14	-0.53	-0.75	-0.24	-0.52	-2.03	0.94
<i>EBIT margin</i>	-51.2%	-3.9%	6.2%	0.2%	-7.2%	-19.7%	-21.2%	-8.3%	-15.1%	-16.2%	25.5%
Net income	-1.37	-0.23	0.03	-0.11	-1.66	-0.62	-0.93	-0.32	-0.51	-2.39	0.65
<i>Net margin</i>	-55.2%	-5.4%	0.7%	-2.2%	-10.5%	-23.1%	-26.5%	-11.2%	-14.9%	-19.1%	17.7%

Source: Company information (consolidated figures), East Value Research GmbH

CAPEX and Working capital

We have assumed yearly CAPEX = D&A expenses (previously: net CAPEX of PLN 100k per annum) and the share of investments in working capital as percentage of sales of 3.3% (previously: 8.5%). Based on recent financials of PHR, we have also increased our assumption regarding the share of depreciation & amortization in total sales to 2.2% in the long run (previously: 2%).

Valuation

Following strong Q1/18 results, we have assumed unchanged sales of Hair Care and Skin Care dermocosmetic products in full-year 2018E-2021E, however have increased our profitability estimates. The 1-MNA dietary supplement should exhibit strong sales growth from Q4/18E as the global dietary supplement market is significant. Relating to the partnering deal for the 1-MNA drug TRIA-662, we continue to believe that PHR will receive the first milestone payment in 2019E, however we have decided to change the weights of the respective applications in our NPV calculation (from 33.3% for all to 10% for Cardiovascular, 45% for NASH and 45% for PAH). With lower WACC (9.9% vs. 10%) and 2.64m new shares in H2/18 (issue price of PLN 8 per share; volume of PLN 21.1m), our 12-months fair value for PHR's share increases from PLN 19.70 to PLN 20.30.

DCF model (Dermocosmetics & dietary supplements)

Below are the key assumptions of our WACC calculation:

- (1) *Risk-free rate*: Current yield of Polish long-term government bonds with maturity in 2037E is 3.3% (Source: www.boerse-stuttgart.de)
- (2) *Beta*: Average unlevered beta for companies from the Drug (Biotechnology) sector, which are based in Emerging Markets, is 1.1x (Source: www.damodaran.com)
- (3) *Target equity ratio*: 100%
- (4) *Equity risk premium (Poland)*: 6.06% (Source: www.damodaran.com)
- (5) *Growth in the terminal period*: 2%

PHR's cash flows from TRIA-662 (Cardiovascular application) and their probabilities

Phase	Year	Milestone payment (USDm)	Probability of success	Cumulated probability
Initial payment (19.4% of total value)	2019	40.58	30.3%	30.3%
Phase III	2021	42.15	76.3%	23.1%
Registration in the US and EU	2023	42.15	84.4%	19.5%
Start of commercial sales	2024	42.15	100.0%	19.5%
Sales of USD >500m per year	2025	42.15	100.0%	19.5%
Commissions on est. USD 800m sales (5.6% per year)	2025			
Percentage of CF for ex-Cortria shareholders (9%)				
Total value (initial payment plus milestones)		209.20		

Source: East Value Research GmbH

NPV model of TRIA-662 (Cardiovascular application)

	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
CF before probabilities, investments and taxes (USDm)	0.00	40.58	0.00	42.15	0.00	42.15	42.15	86.95	44.80	44.80	44.80	44.80
CF accounting for probabilities (USDm)	0.00	12.30	0.00	9.75	0.00	8.23	8.23	16.97	8.74	8.74	8.74	8.74
9% share in CF for ex-Cortria shareholders (USDm)	0.00	-1.11	0.00	-0.88	0.00	-0.74	-0.74	-1.53	-0.79	-0.79	-0.79	-0.79
CF accounting for probabilities and payments to ex-Cortria shareholders (USDm)	0.00	11.19	0.00	8.87	0.00	7.48	7.48	15.44	7.95	7.95	7.95	7.95
Investments in the 1-MNA project (USDm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CF after accounting for probabilities, payments to ex-Cortria shareholders and investments (USDm)	0.00	11.19	0.00	8.87	0.00	7.48	7.48	15.44	7.95	7.95	7.95	7.95
<i>PLN-USD rate</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>
CF accounting for probabilities, payments to ex-Cortria shareholders and investments (PLNm)	0.00	38.05	0.00	30.15	0.00	25.45	25.45	52.50	27.05	27.05	27.05	27.05
<i>Tax rate</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>
CF accounting for probabilities, payments to ex-Cortria shareholders, investments and taxes (PLNm)	0.00	30.82	0.00	24.42	0.00	20.61	20.61	42.52	21.91	21.91	21.91	21.91
<i>Discount factor</i>	<i>1.05</i>	<i>1.15</i>	<i>1.26</i>	<i>1.39</i>	<i>1.53</i>	<i>1.68</i>	<i>1.85</i>	<i>2.03</i>	<i>2.23</i>	<i>2.45</i>	<i>2.70</i>	<i>2.97</i>
Discounted CF accounting for probabilities, payments to ex-Cortria shareholders, investments and taxes (PLNm)	0.00	26.79	0.00	17.57	0.00	12.27	11.16	20.94	9.81	8.93	8.12	7.38
NPV (PLN m)	122.95											
Number of PHR's shares (post-money)	11.43											
NPV per share (PLN)	10.75											

Source: East Value Research GmbH

NPV model 1-MNA drug (NASH / 45% weight)

During the discussions with representatives of Big Pharma companies since October 2016 the Pharma industry stated interest in NASH-related application of PHR's TRIA-662 drug as there are currently no registered drugs available. NASH or Non-alcoholic Steatohepatitis is a severe type of non-alcoholic fatty liver disease (NAFLD), which occurs when the accumulation of liver fat is accompanied by inflammation and cellular damage. According to our research, respective licensing deals have had a median value of USD 767m in the past, with initial payments in the range of USD 48m-USD 400m.

In our valuation model, we have conservatively assumed that in case of a NASH partnering deal there is a 20% probability that PHR finds a partner. With other assumptions being unchanged compared to our update from April 2018, we have increased the weight of this application in the total valuation of TRIA-662 from 33% to 45% due to positive opinions stated by Big Pharma representatives.

Examples of NASH partnering deals

Seller	Acquirer	Drug	Phase of research	Initial payment (USDm)	Potential additional payments (USDm)	Total value (USDm)	Initial payment as % of total value	Year
Tobira Therapeutics	Allergan	Cenicriviroc / Evogliptin	Phase III / Phase I	n.a	n.a	1695	n.a	2016
Akarna Therapeutics	Allergan	AKN-083	Pre-clinical	48	1015	1063	4.5%	2016
Nimbus Therapeutics	Gilead	GS-0976	Phase I completed	400	800	1200	33.3%	2016
Dicerna Pharmaceuticals	Boehringer Ingelheim	GalXC RNAi	Pre-clinical	n.a	n.a	201	n.a	2017
Conatus Pharmaceuticals	Novartis	Emricasan	Phase I completed	50	7	57	87.7%	2016
HemoShear Therapeutics	Takeda Pharmaceuticals	REVEAL-Tx	Pre-clinical	n.a	n.a	470	n.a	2017
Median				50	800	767	33.3%	

Source: Company websites, SEC, East Value Research GmbH

PHR's cash flows from TRIA-662 (NASH application) and their probabilities

Phase	Year	Milestone payment (USDm)	Probability of success	Cumulated probability
Initial payment (19.4% of total value)	2019	59.52	20.0%	20.0%
Phase III	2021	61.82	76.3%	15.3%
Registration in the US and EU	2023	61.82	84.4%	12.9%
Start of commercial sales	2024	61.82	100.0%	12.9%
Sales of USD >500m per year	2025	61.82	100.0%	12.9%
Commissions on est. USD 800m sales (5.6% per year)	2025			
Percentage of CF for ex-Cortria shareholders (9%)				
Total value (initial payment plus milestones)		306.80		

Source: East Value Research GmbH

NPV model of TRIA-662 (NASH application)

	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
CF before probabilities, investments and taxes (USDm)	0.00	59.52	0.00	61.82	0.00	61.82	61.82	106.62	44.80	44.80	44.80	44.80
CF accounting for probabilities (USDm)	0.00	11.90	0.00	9.43	0.00	7.96	7.96	13.73	5.77	5.77	5.77	5.77
9% share in CF for ex-Cortria shareholders (USDm)	0.00	-1.07	0.00	-0.85	0.00	-0.72	-0.72	-1.24	-0.52	-0.52	-0.52	-0.52
CF accounting for probabilities and payments to ex-Cortria shareholders (USDm)	0.00	10.83	0.00	8.58	0.00	7.25	7.25	12.50	5.25	5.25	5.25	5.25
<i>PLN-USD rate</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>	<i>3.40</i>
CF accounting for probabilities, payments to ex-Cortria shareholders (PLNm)	0.00	36.83	0.00	29.19	0.00	24.63	24.63	42.49	17.85	17.85	17.85	17.85
<i>Tax rate</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>	<i>19.0%</i>
CF accounting for probabilities, payments to ex-Cortria shareholders and taxes (PLNm)	0.00	29.83	0.00	23.64	0.00	19.95	19.95	34.41	14.46	14.46	14.46	14.46
<i>Discount factor</i>	<i>1.05</i>	<i>1.15</i>	<i>1.26</i>	<i>1.39</i>	<i>1.53</i>	<i>1.68</i>	<i>1.85</i>	<i>2.03</i>	<i>2.23</i>	<i>2.45</i>	<i>2.70</i>	<i>2.97</i>
Discounted CF accounting for probabilities, payments to ex-Cortria shareholders and taxes (PLNm)	0.00	25.93	0.00	17.00	0.00	11.87	10.80	16.94	6.48	5.89	5.36	4.87
NPV (PLN m)		105.16										
Number of PHR's shares (post-money)		11.43										
NPV per share (PLN)		9.20										

Source: East Value Research GmbH

NPV model 1-MNA drug (PAH / 45% weight)

Another application, in which representatives of the Pharma industry expressed interest, is PAH. PAH stands for Pulmonary Arterial Hypertension, which means high blood pressure in the arteries that go from the heart to the lung. As tiny arteries in the lung become narrow or blocked, the heart has to work harder to pump blood through them, which can eventually lead to heart failure. We have found licensing deals of related drugs from 2008 and 2017 with a value of USD 40m and USD 300m.

Our NPV-model relating to the PAH application is based on the same assumptions as the NAH-related model.

Examples of PAH partnering deals

Seller	Acquirer	Drug	Phase of research	Initial payment (USDm)	Potential additional payments (USDm)	Total value (USDm)	Initial payment as % of total value	Year
Selten Pharma	VIVUS	tacrolimus & ascomycin	Pre-clinical	n.a	n.a	40	n.a	2017
Eli Lilly	United Therapeutics	Tadalafil	n.a / only US	n.a	n.a	300	n.a	2008
Median				n.a	n.a	170	n.a	

Source: pmlive.com, fiercebiotech.com, East Value Research GmbH

PHR's cash flows from TRIA-662 (PAH application) and their probabilities

Phase	Year	Milestone payment (USDm)	Probability of success	Cumulated probability
Initial payment (19.4% of total value)	2019	13.19	20.0%	20.0%
Phase III	2021	13.70	76.3%	15.3%
Registration in the US and EU	2023	13.70	84.4%	12.9%
Start of commercial sales	2024	13.70	100.0%	12.9%
Sales of USD >500m per year	2025	13.70	100.0%	12.9%
Commissions on est. USD 800m sales (5.6% per year)	2025			
Percentage of CF for ex-Cortria shareholders (9%)				
Total value (initial payment plus milestones)		68.00		

Source: East Value Research GmbH

NPV model of TRIA-662 (PAH application)

	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
CF before probabilities, investments and taxes (USDm)	0.00	13.19	0.00	13.70	0.00	13.70	13.70	58.50	44.80	44.80	44.80	44.80
CF accounting for probabilities (USDm)	0.00	2.64	0.00	2.09	0.00	1.76	1.76	7.53	5.77	5.77	5.77	5.77
9% share in CF for ex-Cortria shareholders (USDm)	0.00	-0.24	0.00	-0.19	0.00	-0.16	-0.16	-0.68	-0.52	-0.52	-0.52	-0.52
CF accounting for probabilities and payments to ex-Cortria shareholders (USDm)	0.00	2.40	0.00	1.90	0.00	1.61	1.61	6.86	5.25	5.25	5.25	5.25
<i>PLN-USD rate</i>	<i>3.40</i>											
CF accounting for probabilities, payments to ex-Cortria shareholders (PLNm)	0.00	8.16	0.00	6.47	0.00	5.46	5.46	23.31	17.85	17.85	17.85	17.85
<i>Tax rate</i>	<i>19.0%</i>											
CF accounting for probabilities, payments to ex-Cortria shareholders and taxes (PLNm)	0.00	6.61	0.00	5.24	0.00	4.42	4.42	18.88	14.46	14.46	14.46	14.46
<i>Discount factor</i>	<i>1.05</i>	<i>1.15</i>	<i>1.26</i>	<i>1.39</i>	<i>1.53</i>	<i>1.68</i>	<i>1.85</i>	<i>2.03</i>	<i>2.23</i>	<i>2.45</i>	<i>2.70</i>	<i>2.97</i>
Discounted CF accounting for probabilities, payments to ex-Cortria shareholders and taxes (PLNm)	0.00	5.75	0.00	3.77	0.00	2.63	2.39	9.30	6.48	5.89	5.36	4.87
NPV (PLN m)	46.44											
Number of PHR's shares (post-money)		11.43										
NPV per share (PLN)	4.06											

Source: East Value Research GmbH

Sum-of-the-Parts calculation

Sum-of-the-Parts	Fair value
Dermocosmetics and dietary supplements	10.88
1-MNA drug (10% Cardiovascular, 45% NASH, 45% PAH)	7.59
Implied equity value per share (today)	18.47
In 12-months (PV * (1+WACC))	20.30

Source: East Value Research GmbH

Peer Group Analysis

We have created two peer groups: One with manufacturers of pharmaceuticals and/or dietary supplements and one with producers of cosmetics:

Drugs and dietary supplements:

- (1) *Neptune Technologies & Bioresources Inc.:* Neptune, which is based in Laval/Canada, is a pioneer in the research, development and commercialization of natural omega-3 phospholipid products, derived from marine biomass, for the nutraceutical and pharmaceutical markets. Its subsidiaries, Acasti Pharma Inc. and NeuroBioPharm Inc. operate in the medical food and pharmaceutical markets focusing on the treatment of cardiometabolic and neurological conditions respectively. In fiscal-year 2017/18, Neptune generated revenues of CAD 27.6m.
- (2) *Perrigo Company PLC:* Perrigo Company, which is headquartered in Dublin/Ireland, is a healthcare supplier that develops, manufactures and distributes OTC and generic prescription pharmaceuticals, infant formulas, nutritional products, animal health, dietary supplements, active pharmaceutical ingredients and medical diagnostic products. Moreover, the company receives royalties from multiple sclerosis drug Tysabri. In fiscal-year 2017, Perrigo generated revenues of USD 4.9bn.
- (3) *Abbott Laboratories Inc.:* Abbott, which is based in Abbott Park/US, is a global healthcare company. In 2017, it generated revenues of USD 27.4bn, thereof 25.3% stemmed from nutritional and 15.7% from established pharmaceutical products. Its drugs against dyslipidemia are Tricor, Niaspan and Advicor.
- (4) *Merck & Co Inc.:* Merck, which is based in Kenilworth/US, offers health solutions through its prescription medicines, vaccines, biologic therapies and animal health products. In 2017, it generated revenues of USD 40.1bn. The company's three drugs for reduction of bad (LDL) cholesterol are Zocor, Zetia and Vytorin (combination of Zocor and Zetia in a single tablet).
- (5) *Pfizer Inc.:* Pfizer, which is headquartered in New York/US, offers medicines and vaccines as well as many well-known consumer healthcare products. Its drug Lipitor is the most successful drug for lowering bad cholesterol to date. In 2017, Pfizer had revenues of USD 52.5bn.

- (6) *Bristol-Myers Squibb Corp.*: BMS, which is based in New York/US, is engaged in the discovery, development, licensing, manufacturing, marketing, distribution and sale of biopharmaceuticals. Its anti-atherosclerosis drug is Pravachol. In 2017, BMS generated total sales of USD 20.8bn.
- (7) *AstraZeneca PLC*: AstraZeneca, which is headquartered in Cambridge/UK, discovers, develops and commercializes biopharmaceuticals. Its drug for managing cholesterol levels is Crestor. In 2017, AstraZeneca had revenues of GBP 16.9bn.
- (8) *Amgen Inc.*: Amgen, which is based in Thousand Oaks/US, is a biotechnology company. In 2017, it had revenues of USD 22.8bn. Amgen's primary drug against bad cholesterol (LDL) is Repatha. Moreover, in September 2015 it bought Dutch company Dezima, which owns the midstage drug TA-8995, an oral CETP (Cholesterylester Transfer Protein) inhibitor that has shown the ability to slash LDL by up to 48%, while simultaneously boosting HDL (good cholesterol). Amgen will pay Dezima USD 300m upfront and min. USD 1.25bn in milestones depending on the registration and commercialization progress of the drug.

Company	EV/Sales		EV/EBITDA		P/E		EBITDA margin	Net gearing	P/BVPS
	2018E	2019E	2018E	2019E	2018E	2019E	Last FY	Latest	Latest
Neptune Technol. & Bioess. Inc. (USD)	7.52x	3.22x	289.76x	17.54x	n.a	38.70x	n.a	-22.70%	3.54x
Perrigo Company PLC (USD)	2.66x	2.58x	11.63x	11.10x	14.76x	13.69x	23.30%	42.50%	1.73x
Abbott Laboratories Inc. (USD)	4.11x	3.88x	16.59x	15.07x	21.83x	19.39x	21.80%	57.48%	3.49x
Merck & Co Inc. (USD)	4.37x	4.23x	11.68x	10.86x	14.75x	13.71x	31.70%	48.49%	4.98x
Pfizer Inc. (USD)	4.58x	4.51x	10.94x	10.69x	12.68x	12.15x	40.50%	42.46%	3.12x
Bristol-Myers Squibb Inc. (USD)	4.30x	4.08x	15.09x	13.93x	16.62x	15.23x	27.40%	7.27%	7.24x
AstraZeneca PLC (GBP)	4.88x	4.56x	17.49x	14.93x	20.37x	17.75x	26.60%	124.14%	5.15x
Amgen Inc. (USD)	5.78x	5.78x	10.22x	10.27x	14.13x	13.64x	54.20%	21.57%	8.20x
Median	4.47x	4.16x	13.38x	12.51x	14.76x	14.47x	27.40%	42.48%	4.26x

Source: CapitalIQ, East Value Research GmbH

Dermocosmetics:

- (9) *Beiersdorf AG*: Beiersdorf, which is based in Hamburg/Germany, manufactures cosmetic products. It operates under the brands NIVEA, Eucerin, Labello, La Prairie, Hansaplast, Florena, 8x4, tesa, atrix and SLEK. In 2017, Beiersdorf generated revenues of EUR 7.1bn.
- (10) *L'Oreal SA*: L'Oreal, which is based in Clichy/France, is a cosmetics company. Its Professional Products division offers beauty products used and sold in hair salons. The Consumer Products division offers products sold in mass-market retail channels. L'Oreal Luxe division offers products sold in selective retail outlets e.g. department stores, perfumeries, the Group's own boutiques and certain online stores. Active Cosmetics division offers products for borderline complexions, while the Body Shop unit offers natural cosmetics and toiletry products. In 2017, L'Oreal generated total sales of EUR 26bn.

L'Oreal's subsidiary Vichy, a premium brand of skincare, bodycare, make-up and anti-aging products, owns the product line Dercos, which is No 1 on the Polish market for hair care dermocosmetics in terms of revenues.

- (11) *Estee Lauder Companies Inc.*: Estee Lauder, which is based in New York/US, is a manufacturer and marketer of skin care, makeup, fragrance and hair care products. The company's products are sold in over 150 countries under such brand names as Estee Lauder, Aramis, Clinique, Origins, Le Labo, M.A.C, Bobbi Brown, La Mer and Aveda. It is also the global licensee for fragrances and/or cosmetics sold under e.g. Tommy Hilfiger, Donna Karan, Michael Kors, Tom Ford and Coach. In fiscal-year 2016/17, Estee Lauder had revenues of USD 11.8bn.
- (12) *Shiseido Co Ltd.*: Shiseido, which is based in Tokyo/Japan, is engaged in the manufacture and sale of cosmetics, toiletries, beauty products, health foods, beauty foods and pharmaceuticals. In fiscal-year 2017, Shiseido had total sales of JPY 1tr.
- (13) *Procter & Gamble Corp.*: Procter & Gamble, which is headquartered in Cincinnati/US, provides consumer packaged goods, which are sold in over 180 countries. It operates in five segments: Beauty, Grooming, Health Care, Fabric Care and Home Care as well as Baby Feminine and Family Care. In fiscal-year 2016/17, Procter & Gamble generated revenues of USD 65.1bn.
- (14) *Coty Inc.*: Coty, which is based in New York/US, manufactures and markets beauty products in the Fragrances, Color Cosmetics and Skin & Body Care segments with distribution in over 130 countries. In fiscal-year 2016/17, it had revenues of USD 7.7bn.
- (15) *Aflofarm Farmacja Polska Sp. z.o.o.*: Aflofarm, which is based in Pabianice, is a privately-owned Polish manufacturer of pharmaceuticals, dietary supplements and cosmetics. Its label DX2 is No 3 on the Polish market for hair care dermocosmetics.
- (16) *ZIAJA Ltd Zaklad Produkcji Lekow sp. z.o.o.*: ZIAJA is a privately-owned Polish manufacturer of dermocosmetics with headquarters in Gdansk. It was founded in 1989. Apart from Poland, its products are available in 12 European countries, selected Asian markets and Chile.
- (17) *Polpharma S.A.*: Polpharma, which is based in Starogard Gdanski, is the largest manufacturer of pharmaceuticals in Poland and one of the 20 largest generic drug manufacturers worldwide. The company has 7 production plants in Poland, Russia and Kazakhstan and 7 R&D centers. Its product portfolio comprises 600 prescription drugs, pharmaceuticals for in-patient care, medical devices, dietary supplements and phyto-pharmaceuticals, with 200 additional ones in development. Since 2017, Polpharma has also been offering dermocosmetic shampoos under the brands PIROLAM, BIOTEBAL and ELODERM.

Company	EV/Sales		EV/EBITDA		P/E		EBITDA margin	Net gearing	P/BVPS
	2018E	2019E	2018E	2019E	2018E	2019E	Last FY	Latest	Latest
Beiersdorf AG (EUR)	2.80x	2.67x	15.62x	14.53x	28.22x	26.09x	17.50%	-35.42%	4.30x
L'Oreal SA (EUR)	4.28x	4.07x	18.97x	17.88x	29.54x	27.72x	22.30%	-7.64%	4.64x
Estee Lauder Comp. Inc. (USD)	3.92x	3.65x	19.11x	17.33x	31.91x	28.36x	21.30%	24.09%	11.11x
Shiseido Co Ltd. (JPY)	3.00x	2.76x	20.13x	17.44x	45.73x	36.80x	12.40%	-12.32%	7.60x
Procter & Gamble Inc. (USD)	3.24x	3.18x	12.44x	12.11x	18.72x	17.74x	26.90%	37.05%	3.69x
Coty Inc. (USD)	1.92x	1.91x	13.24x	11.51x	20.61x	17.13x	13.50%	77.95%	1.12x
Median	3.12x	2.97x	17.29x	15.93x	28.88x	26.90x	19.40%	8.23%	4.47x

Source: CapitalIQ, East Value Research GmbH

Profit and loss statement

in PLNm	2012	2013	2014	2015	2016	2017
Net sales	9.13	14.14	14.13	17.47	15.91	12.51
Cost of goods sold	-2.84	-4.11	-3.93	-4.85	-4.41	-3.57
Gross profit	6.29	10.03	10.20	12.62	11.50	8.94
Other operating income	0.03	0.02	0.02	0.02	0.02	0.00
Distribution costs	-2.40	-5.89	-6.56	-8.15	-7.78	-7.20
Administration costs	-6.75	-5.27	-7.17	-7.01	-4.49	-3.29
Other operating expenses	-0.04	-0.07	-0.09	-0.10	-0.12	-0.12
EBITDA	-2.87	-1.19	-3.60	-2.63	-0.87	-1.68
Depreciation & Amortization	-0.14	-0.16	-0.18	-0.22	-0.27	-0.36
EBIT	-3.01	-1.34	-3.79	-2.84	-1.14	-2.03
Net financial results	-0.18	-0.49	0.84	0.22	-0.09	-0.37
Write-down of negative goodwill	-0.52	-0.52	-0.52	-0.34	0.00	0.00
EBT	-3.71	-2.35	-3.46	-2.96	-1.23	-2.40
Income taxes	-0.39	-0.50	-0.62	-0.66	-0.43	0.01
Net income / loss	-4.10	-2.84	-4.09	-3.62	-1.66	-2.39
EPS	-0.58	-0.32	-0.46	-0.41	-0.19	-0.27
DPS	0.10	0.11	0.11	0.12	0.12	0.12
Share in total sales						
Net sales	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Cost of goods sold	-31.08 %	-29.06 %	-27.82 %	-27.77 %	-27.71 %	-28.56 %
Gross profit	68.92 %	70.94 %	72.18 %	72.23 %	72.29 %	71.44 %
Other operating income	0.32 %	0.13 %	0.15 %	0.09 %	0.11 %	0.01 %
Distribution costs	-26.33 %	-41.66 %	-46.44 %	-46.65 %	-48.89 %	-57.57 %
Administration costs	-73.95 %	-37.30 %	-50.74 %	-40.12 %	-28.21 %	-26.30 %
Other operating expenses	-0.43 %	-0.50 %	-0.64 %	-0.57 %	-0.77 %	-0.98 %
EBITDA	-31.48 %	-8.38 %	-25.50 %	-15.02 %	-5.47 %	-13.40 %
Depreciation & Amortization	-1.52 %	-1.12 %	-1.29 %	-1.24 %	-1.70 %	-2.85 %
EBIT	-33.00 %	-9.51 %	-26.79 %	-16.26 %	-7.18 %	-16.24 %
Net financial results	-2.00 %	-3.44 %	5.92 %	1.28 %	-0.57 %	-2.93 %
Write-down of negative goodwill	-5.65 %	-3.65 %	-3.65 %	-1.97 %	0.00 %	0.00 %
EBT	-40.66 %	-16.59 %	-24.52 %	-16.95 %	-7.74 %	-19.17 %
Income taxes	-4.25 %	-3.52 %	-4.40 %	-3.75 %	-2.71 %	0.07 %
Net income / loss	-44.91 %	-20.11 %	-28.92 %	-20.69 %	-10.46 %	-19.10 %

Balance Sheet

in PLNm	2012	2013	2014	2015	2016	2017
Assets						
Cash and cash equivalents	3.20	11.15	5.22	2.79	0.82	0.22
Inventories	1.40	2.09	2.91	3.02	3.11	3.11
Trade accounts and notes receivables	2.86	3.83	5.28	5.78	6.64	3.67
Other financial assets	0.00	0.00	0.00	0.00	0.00	0.00
Other current assets	0.80	0.76	0.87	1.65	1.76	2.27
Current assets	8.26	17.84	14.27	13.23	12.33	9.27
Property, plant and equipment	0.16	0.11	0.16	0.21	0.27	0.18
Other intangible assets	0.78	0.67	0.73	0.80	0.82	0.77
Goodwill	1.38	0.86	0.34	0.00	0.00	0.00
Long-term financial assets	0.05	0.05	0.05	0.05	0.05	0.10
Other long-term assets	0.90	0.85	1.20	0.76	0.71	0.66
Deferred tax assets	0.07	0.18	0.10	0.11	0.11	0.13
Non-current assets	3.33	2.72	2.59	1.92	1.96	1.83
Total assets	11.59	20.56	16.86	15.16	14.28	11.10
Liabilities						
Trade payables	1.64	1.32	1.36	1.29	2.63	1.54
Other liabilities	0.73	0.90	1.09	0.84	0.97	2.16
Short-term financial debt	0.06	0.02	1.00	4.01	4.41	3.64
Pension provisions	0.03	0.16	0.18	0.18	0.16	0.04
Other provisions	0.00	0.00	0.00	0.00	0.00	0.02
Current liabilities	2.47	2.40	3.64	6.33	8.16	7.41
Long-term financial debt	0.04	0.02	0.07	0.08	0.09	0.04
Deferred tax liabilities	0.10	0.09	0.08	0.08	0.09	0.10
Long-term liabilities	0.14	0.11	0.14	0.16	0.18	0.14
Total liabilities	2.61	2.51	3.78	6.49	8.34	7.54
Shareholders equity	8.98	18.05	13.08	8.67	5.94	3.56
Minority interests	0.00	0.00	0.00	0.00	0.00	0.00
Total liabilities and equity	11.59	20.56	16.86	15.16	14.28	11.10

Cash Flow Statement

in PLNm	2012	2013	2014	2015	2016	2017
Net income / loss	-4.10	-2.84	-4.09	-3.62	-1.66	-2.39
Depreciation	0.14	0.16	0.18	0.22	0.27	0.36
Change of working capital	-0.50	-1.85	-2.45	-1.35	0.34	2.50
Others	0.41	0.70	0.60	0.58	0.10	0.16
Net operating cash flow	-4.05	-3.84	-5.75	-4.18	-0.95	0.62
Cash flow from investing	-0.22	-0.01	-0.09	-0.10	-0.12	-0.20
Free cash flow	-4.27	-3.85	-5.84	-4.27	-1.07	0.42
Cash flow from financing	4.48	11.81	-0.09	1.84	-0.90	-1.02
Change of cash	0.06	7.96	-5.72	-2.44	-1.93	-0.67
Cash at the beginning of the period	3.00	3.20	11.15	5.22	2.79	0.82
Cash at the end of the period	3.20	11.15	5.22	2.79	0.82	0.22

Financial ratios

Fiscal year	2012	2013	2014	2015	2016	2017
Profitability and balance sheet quality						
Gross margin	68.92%	70.94%	72.18%	72.23%	72.29%	71.44%
EBITDA margin	-31.48%	-8.38%	-25.50%	-15.02%	-5.47%	-13.40%
EBIT margin	-33.00%	-9.51%	-26.79%	-16.26%	-7.18%	-16.24%
Net margin	-44.91%	-20.11%	-28.92%	-20.69%	-10.46%	-19.10%
Return on equity (ROE)	-46.93%	-21.04%	-26.25%	-33.24%	-22.77%	-50.27%
Return on assets (ROA)	-35.98%	-14.66%	-26.31%	-23.99%	-10.69%	-15.94%
Return on capital employed (ROCE)	-36.48%	-8.97%	-33.75%	-39.28%	-25.20%	-54.76%
Net debt (in PLNm)	-3.06	-10.95	-3.97	1.49	3.85	3.50
Net gearing	-34.12%	-60.68%	-30.37%	17.18%	64.70%	98.40%
Equity ratio	77.48%	87.81%	77.59%	57.21%	41.61%	32.07%
Current ratio	3.35	7.44	3.93	2.09	1.51	1.25
Quick ratio	2.46	6.26	2.89	1.35	0.91	0.53
Net interest cover	-16.46	-2.77	4.52	12.68	-12.69	-5.55
Net debt/EBITDA	1.07	9.24	1.10	-0.57	-4.41	-2.09
Tangible BVPS	1.08	1.95	1.45	0.99	0.68	0.40
CAPEX/Sales	2.34%	3.61%	1.56%	0.12%	-2.24%	-1.67%
Working capital/Sales	39.32%	37.64%	55.19%	51.92%	54.17%	48.03%
Cash Conversion Cycle (in days)	83	168	280	250	193	193
Trading multiples						
EV/Sales	7.13	4.61	4.61	3.73	4.09	5.21
EV/EBITDA	-22.66	-54.97	-18.08	-24.81	-74.78	-38.86
EV/EBIT	-21.62	-48.47	-17.21	-22.93	-57.04	-32.06
P/Tangible BVPS	8.66	4.78	6.45	9.48	13.84	23.09
P/E	-16.12	-29.22	-20.33	-22.74	-49.42	-34.42
P/FCF	-19.24	-21.37	-14.07	-19.25	-76.57	194.87

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