

QUARTERLY UPDATE

August 17, 2015

Stock Rating:

OUTPERFORM

| 12-18 mo. Price Target | \$18.00 |
|------------------------|---------|
| PRTO - NASDAQ | \$13.23 |

| 3-5 Yr. EPS Gr. Rate | NA |
|--------------------------------------|----------------|
| 52-Wk Range | \$20.00-\$8.57 |
| Shares Outstanding | 15.0M |
| Float | 5.5M |
| Market Capitalization | \$217.8M |
| Avg. Daily Trading Volume | 43,501 |
| Dividend/Div Yield | NA/NM |
| Book Value | \$2.42 |
| Fiscal Year Ends | Dec |
| 2015E ROE | NA |
| LT Debt | NA |
| Preferred | \$123.9M |
| Common Equity | \$(109)M |
| Convertible Available | No |
| Trading range is as of 10/22/14 IPO. | |

| EPS Diluted | Q1 | Q2 | Q3 | Q4 | Year | Mult. |
|----------------|---------|---------|---------|--------|--------|-------|
| 2013A | | | | | (3.07) | NM |
| 2014A | (0.65) | (0.65) | (31.03) | 0.59 | (3.16) | NM |
| 2015E | (0.28)A | (0.31)A | (0.35) | (0.39) | (1.33) | NM |
| Prior (E) | | | | | (1.32) | NM |
| 2016E | | | | | (2.47) | NM |
| Prior (E) | | | | | (2.45) | NM |

HEALTHCARE/BIO AND SPECIALTY PHARMACEUTICALS

Proteon Therapeutics

2Q15 Update; Phase 3 AVF Trials Underway and Add'l Upside in PAD

SUMMARY

We are updating our model following 2Q15. Operating expenses were higher y/y due primarily to the two ongoing Phase 3 trials of vonapanitase (PRT-201) in AVF and were in line with our estimates. Proteon recently reported that the first patient in the second Phase 3 trial of vonapanitase in AVF had been treated as well as top-line results of vonapanitase in patients with symptomatic PAD (Phase 1). The first of the two Phase 3 trials in AVF is expected to report data in 1Q17, and if data is positive, we expect the company to apply for U.S. approval in 3Q17 based on data from this trial.

KEY POINTS

- Proteon ended 2Q15 with cash and cash equivalents of \$74.7M, which the company expects to provide runway into 2018.
- Enrollment in the first of two Phase 3 trials of vonapanitase in AVF has gone according to schedule and the company expects to complete enrollment by YE2015 and to report data in 1Q17. Proteon recently announced that the first patient had been treated in the second Phase 3 AVF trial (link here).
- Proteon recently reported that vonapanitase was well-tolerated in symptomatic patients with peripheral artery disease following completion of the Phase 1 trial (link here). If successful, the use of vonapanitase in this indication represents additional upside.
- Upcoming events include: 1) completion of enrollment of first Phase 3 AVF trial by YE2015; 2) presentation of Phase 1 PAD data ~2H15; and 3) top-line data of first Phase 3 trial in AVF in 1Q17.
- We reiterate Outperform and \$18 PT.

Stock Price Performance

1 Year Price History for PRTO 21 18 15 12 23 2015 Created by Blumbatox

Company Description

Proteon Therapeutics is a development stage biopharmaceutical company focused on therapies for treating patients with renal and vascular diseases.

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Exhibit 1: Anticipated Upcoming Milestones for Proteon Therapeutics (PRTO)

| Expected Date | Event Description |
|----------------------|---|
| Aug-15 | Initiate second Phase 3 trial for vonapanitase in radiocephalic AVF |
| 3Q15 | Follow-up data from Phase 1 PAD study of vonapanitase (PRT-201) |
| 2H15 | Presentation of Phase 1 PAD data at a medical conference |
| 2H15 | Complete enrollment in first Phase 3 trial for vonapanitase in radiocephalic AVF |
| 2016/2017 | Potential business development relating to ex-US rights of vonapanitase |
| 1Q17 | Potential release of top-line data from first Phase 3 vonapanitase study |
| 3Q17 | Potential filing for U.S. approval of vonapanitase based on first Phase 3 study |
| 1H18 | Potential approval of vonapanitase in Radiocephalic AVF placements (on first study) |
| 2Q18 | Potential release of top-line data from second Phase 3 vonapanitase study |
| 2H18 | Anticipate launch of vonapanitase in U.S. if approved on results of first study |
| 2H19 | Anticipate launch of vonapanitase in U.S. if results of both Phase 3 studies are required |

Source: Company Documents and Oppenheimer & Co.

Proteon Therapeutics (PRTO) (\$000's) [FY-DEC] Oppenheimer & Co.

| | 2012A | 2013A | | | 2014A | | | | | 2015E | | | 2016E | 2017E |
|---|------------|----------------|----------------|----------------|------------|------------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | FY:12A | FY:13A | Q1A | Q2A | Q3A | Q4A | FY:14A | Q1A | Q2A | Q3E | Q4E | FY:15E | FY:16E | FY:17E |
| Revenues from Product Sales | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PRT-201 AVF Hemodialysis (US) | - | - | • | - | - | - | | - | - | - | - | | - | - |
| PRT-201 AVF Hemodialysis (EU) | - | - | - | - | - | - | - | | - | - | - | - | - | - |
| Licensing revenue and Milestones | - | - | - | | - | - | - | - | - | | - | - | - | - |
| Total revenues | \$ - | \$ - | \$ - \$ | - \$ | 2,948 \$ | | \$ 2,948 | \$ - \$ | | <u> </u> | - | \$ - | \$ - | \$ - |
| Cost of Goods | | - | | | | - | | | | - | - | - | - | - |
| Gross profit | - | - | | | 2,948 | - | 2,948 | | - | | - | - | - | - |
| Operating expenses | | | | | | | | | | | | | | |
| Research and development | 5,907 | 3,994 | 1,393 | 1,393 | 1,773 | 1,874 | 6,432 | 2,633 | 3,090 | 3,634 | 4,360 | 13,717 | 32,771 | 16,386 |
| Selling, general and administrative | 2,089 | 3,128 | 828 | 828 | 1,041 | 1,399 | 4,096 | 1,987 | 1,891 | 2,191 | 2,213 | 8,281 | 10,172 | 14,241 |
| Other | - | - | | - | - | - | - | - | - | - | - | - | - | - |
| Total expenses | 7,996 | 7,122 | 2,221 | 2,221 | 2,814 | 3,273 | 10,528 | 4,620 | 4,981 | 5,824 | 6,573 | 21,998 | 42,943 | 30,626 |
| Operating income | (7,996) | (7,122) | (2,221) | (2,221) | 134 | (3,273) | (7,580) | (4,620) | (4,981) | (5,824) | (6,573) | (21,998) | (42,943) | (30,626) |
| Interest income (expense), net | | (861) | (429) | (429) | 10 | 14 | (833) | 40 | 37 | 37 | 37 | 151 | 83 | 46 |
| Other income (expense) | (6,107) | (6,048) | (48) | (48) | (5,325) | 10.495 | 5.071 | | (128) | - | ٠. | (128) | - | |
| Pre-tax income | (14,103) | (14,031) | (2,697) | (2,697) | (5,181) | 7,236 | (3,342) | (4,580) | (5,072) | (5,787) | (6,536) | (21,975) | (42,860) | (30,581) |
| Income tax expense (benefit) | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Net income (loss) | (14,103) | (14,031) | (\$2,697) | (\$2,697) | (\$5,181) | \$7,236 | (3,342) | (\$4,580) | (\$5,072) | (\$5,787) | (\$6,536) | (\$21,975) | (\$42,860) | (\$30,581) |
| Accretion of redeemable convert | | | (1,705) | (1,705) | (2,277) | (656) | (6,342) | - | - | - | - | | - | - |
| Basic shares outstanding Diluted shares outstanding | 231 231 | 4,566 4,566 | 6,763 6,763 | 6,763 6,763 | 240 240 | 11,445 12,295 | 3,065 3,065 | 16,449 16,449 | 16,450 16,450 | 16,600 16,600 | 16,750 16,750 | 16,562 16,562 | 17,350 17,350 | 17,162 17,162 |
| GAAP EPS (basic and diluted) | (\$61.16) | (\$3.07) | (\$0.65) | (\$0.65) | (\$31.03) | \$0.59 | (\$3.16) | (\$0.28) | (\$0.31) | (\$0.35) | (\$0.39) | (\$1.33) | (\$2.47) | (\$1.78) |
| Cash and Equivalents | \$ 7,471 | \$ 5,152 | \$ - \$ | 25,416 \$ | 21,686 \$ | 83,595 | \$ 83,595 | \$ 79,525 \$ | 74,736 | \$ 57,821 \$ | 51,765 | \$ 51,765 | \$ 14,489 | \$ (14,937) |

Source: Oppenheimer & Co. Inc., Company Reports



Investment Thesis

Our bullish investment thesis stems from our belief that vonapanitase (PRT-201) is poised to become standard of care during hemodialysis access procedures if Phase 3 clinical studies are successful. In our view, the company's current market valuation does not fully reflect the full potential of PRT-201 to take meaningful share in the sizable hemodialysis access market. While the clinical trial risk associated with Phase 3 is appreciable, we believe PRTO shares represent a significantly favorable risk/reward proposition for investors with appropriate risk and time horizons.

Price Target Calculation

Our 12- to 18-month \$18 price target for PRTO is derived from a sum-of-the-parts analysis of the company's development pipeline drugs, namely PRT-201. We value PRTO using a sum-of-parts probability-adjusted net present value (pNPV) approach, calculating anticipated profits from PRT-201 discounted at 10.5% through 2031 with no terminal value. We then adjust for clinical and regulatory risk by assigning an estimated probability of success. We currently assign a 54% probability of approval for PRT-201.

Key Risks to Price Target

We would expect a material decline in PRTO shares in the event of unsuccessful US phase 3 programs for PRT-201. Our estimates assume the drug launching in 2018 based on a regulatory filing of a single pivotal study demonstrating efficacy in AVF. If the first Phase 3 study is positive, but the p-value associated with the primary endpoint isn't strong enough to support registration on a single pivotal, PRTO will need to wait for data from the second trial before seeking approval. In this scenario, the drug would then be launched roughly one year later than our current estimates. PRTO may also be subject to liquidity risk due to low trading volume which could add to volatility if a large shareholder were to sell a sizable amount of stock.

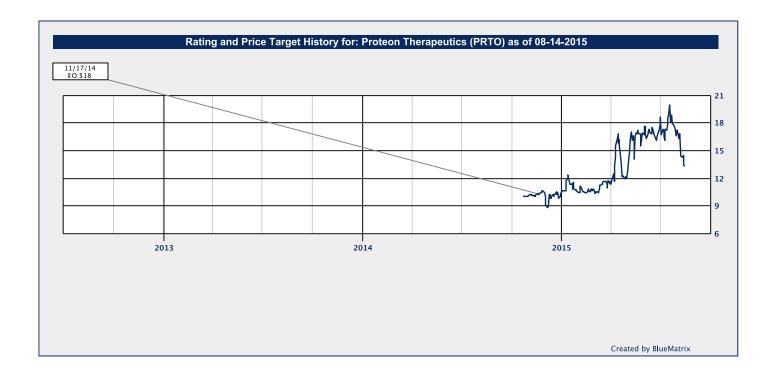
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| | Dis | tribution | of Rating |
|-------|---------|---|-------------------------------|
| | | IB Serv/Pa | st 12 Mos. |
| Count | Percent | Count | Percent |
| 330 | 56.22 | 144 | 43.64 |
| 250 | 42.59 | 88 | 35.20 |
| 7 | 1.19 | 3 | 42.86 |
| | 330 | Count Percent 330 56.22 250 42.59 | 330 56.22 144 250 42.59 88 |

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