

Healthcare: Pharmaceuticals

Synergy Pharmaceuticals, Inc. | SGYP - \$4.62 - NASDAQ | Buy

Quarterly Update

Estimates Changed

Stock Data

| | |
|--------------------|-----------------|
| 52-Week Low - High | \$3.17 - \$7.34 |
| Shares Out. (mil) | 65.81 |
| Mkt. Cap.(mil) | \$304.0 |
| 3-Mo. Avg. Vol. | 312,172 |
| 12-Mo.Price Target | \$12.00 |
| Cash (mil) | \$47.6 |
| Tot. Debt (mil) | \$0.0 |

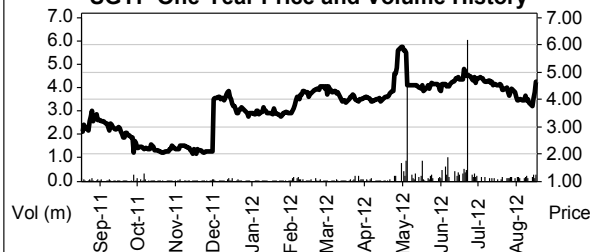
EPS \$

| Yr Dec | —2011— | —2012E— | | —2013E— | |
|--------|---------|---------|---------|---------|---------|
| | | Curr | Prev | Curr | Prev |
| 1Q | (0.08)A | (0.13)A | (0.13)A | - | - |
| 2Q | (0.10)A | (0.17)A | (0.13)E | - | - |
| 3Q | (0.01)A | (0.14)E | (0.14)E | - | - |
| 4Q | (0.12)A | (0.14)E | (0.15)E | - | - |
| YEAR | (0.30)A | (0.58)E | (0.55)E | (0.45)E | (0.48)E |
| P/E | NM | NM | NM | NM | NM |

Revenue (\$ millions)

| Yr Dec | —2011— | —2012E— | |
|--------|--------|---------|------|
| | | Curr | Curr |
| 1Q | 0.0A | 0.0A | - |
| 2Q | 0.0A | 0.0A | - |
| 3Q | 0.0A | 0.0E | - |
| 4Q | 0.0A | 0.0E | - |
| YEAR | 0.0A | 0.0E | 0.0E |

SGYP One-Year Price and Volume History



SGYP: 2Q12 Update - Plecanatide Fully Enrolled, 4Q12 Data the Catalyst

SGYP reported an uneventful 2Q12. The main catalyst for shares is phase 2b/3 clinical data for plecanatide to treat constipation (targeted for 4Q12). We maintain our Buy rating as we expect this data to be positive.

- **2Q12 results (10-Q filed) - Uneventful.** SGYP reported no 1Q12 revenues as expected. The \$0.04 higher EPS loss of \$0.17 was a result of higher R&D (hurt EPS by ~\$0.02) and non-cash financial instrument adjustments (hurt EPS by ~\$0.02). We viewed the results as not particularly material.
- **Pipeline update - Plecanatide phase 2b/3 fully enrolled.** The company announced that the phase 2b/3 plecanatide study for the treatment of chronic idiopathic constipation (CIC) achieved its enrollment target of 880 patients on August 13, 2012. This is in-line to ahead of our targets, and data is expected in 4Q12 (post 12 week follow-up, we target December). This is the key catalyst for shares, in our opinion. Other programs remain on track with SP-333 (for ulcerative colitis, we believe an underappreciated compound) expected to have phase 1 data in 4Q12, and plecanatide for IBS-C targeted to enter phase 2 trials in 4Q12.
- **Model changes.** Minimal changes from prior expectations. We upped shares outstanding by ~4.7 million shares to reflect the Callisto merger/resolution.
- **Maintain Buy rating.** We continue to view plecanatide as an undervalued asset within the gastrointestinal arena. We believe that this compound could have similar efficacy to FRX/IRWD's linaclotide with potentially less diarrhea side effects.

Intraday Price: \$4.78, 11:28AM ET 8/17/2012

VALUATION

We value shares of Synergy Pharmaceuticals based on a sum-of-the-parts analysis. The main driver is plecanatide at \$10/share with lesser contribution from SP-333 (\$1.50/share) and future indications/technology value (\$0.50/share).

Impediments to our price target include, but are not limited to, unexpected adverse clinical outcomes, inability to attain a partnership, and inability to raise additional financial resources on reasonable terms.

RISKS

In addition to the risks inherent in drug development and marketing, key investment risks for Synergy Pharmaceuticals include:

- **Clinical risk** – We anticipate positive clinical data for the plecanatide program. Further, the phase 2/3 clinical data is longer in duration, which adds risk beyond the early stage trials. Failure of this data to match expectations could have a material adverse impact on company shares.
- **Partnership risk** – We expect that Synergy will outlicense, partner, or sell its clinical programs prior to product launch. Failure to monetize these assets on favorable terms could have a material adverse impact on company shares.

COMPANY DESCRIPTION

Synergy Pharmaceuticals, Inc., a development stage biopharmaceutical company, focuses on the development of drugs to treat gastrointestinal disorders and diseases. It is developing plecanatide that completed Phase 2a clinical trial and is undergoing a Phase II/III clinical trial for the treatment chronic idiopathic constipation and constipation-predominant irritable bowel syndrome; and SP-333, a second generation GC-C receptor analog, which is in pre-clinical stage for the treatment of gastrointestinal inflammatory diseases, such as ulcerative colitis. The company is headquartered in New York, New York.

QUARTERLY VARIANCE ANALYSIS

*(values in 000's**except per share data)***Revenues:**

| | Actual 2Q12 | Estimate 2Q12 | Variance | Comments |
|-------------------------|-----------------|------------------|-----------------|--------------------------------------|
| Total revenue | - | - | - | P2/3 trial fully enrolled |
| R&D | 7,626 | 6,500 | 1,126 | Higher variance, \$0.02 EPS downside |
| SG&A | 1,918 | 1,750 | 168 | |
| Operating income (loss) | (9,545) | (8,250) | (1,295) | Non-cash, \$0.02 EPS downside |
| Other income | 304 | 300 | 4 | |
| FV of fin instruments | (1,317) | - | (1,317) | |
| Pretax income | (10,558) | (7,950) | (2,608) | |
| Taxes | - | - | - | |
| Net income | (10,558) | (7,950) | (2,608) | |
| EPS | (\$0.17) | (\$0.13) | (\$0.04) | From R&D and derivatives |
| FD Shares outstanding | 60,416 | 60,000 | 416 | |

Source: ROTH Capital Partners and company reports

| Synergy Pharmaceuticals | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------|---------|---------|---------|---------|-----------|---------|----------|---------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Earnings model (values in 000's) | FY 2010 A | 1Q11A | 2Q11A | 3Q11A | 4Q11A | FY 2011 A | 1Q12A | 2Q12A | 3Q12E | 4Q12E | FY 2012 E | FY 2013 E | FY 2014 E | FY 2015 E | FY 2016 E | FY 2017 E | FY 2018 E | FY 2019 E | FY 2020 E |
| Revenues: | | | | | | | | | | | | | | | | | | | |
| Plecanatide US revenues | | | | | | | | | | | | | | 25,000 | 100,000 | 190,000 | 300,000 | 375,000 | 450,000 |
| SP-333 end revenues | | | | | | | | | | | | | | | | | 47,299 | 99,384 | 156,620 |
| Plecanatide royalties | | | | | | | | | | | | | | 7,500 | 30,000 | 57,000 | 90,000 | 112,500 | 135,000 |
| SP-333 royalties | | | | | | | | | | | | | | | | | 11,825 | 24,846 | 39,155 |
| Total revenue | - | - | - | - | - | - | - | - | - | - | - | - | - | 7,500 | 30,000 | 57,000 | 101,825 | 137,346 | 174,155 |
| R&D | 9,559 | 1,478 | 2,354 | 3,883 | 5,703 | 13,419 | 5,338 | 7,626 | 7,750 | 8,000 | 28,714 | 29,000 | 32,500 | 25,500 | 21,500 | 20,500 | 21,500 | 22,000 | 22,000 |
| G&A | 6,562 | 1,898 | 1,524 | 1,103 | 2,222 | 6,746 | 1,731 | 1,918 | 1,950 | 2,250 | 7,850 | 7,750 | 8,000 | 8,250 | 8,750 | 9,500 | 10,750 | 11,500 | 12,000 |
| Total expenses | 16,121 | 3,376 | 3,879 | 4,986 | 7,925 | 20,165 | 7,069 | 9,545 | 9,700 | 10,250 | 36,564 | 36,750 | 40,500 | 33,750 | 30,250 | 30,000 | 32,250 | 33,500 | 34,000 |
| Operating loss | (16,121) | (3,376) | (3,879) | (4,986) | (7,925) | (20,165) | (7,069) | (9,545) | (9,700) | (10,250) | (36,564) | (36,750) | (40,500) | (26,250) | (250) | 27,000 | 69,575 | 103,846 | 140,155 |
| Other income | 494 | 24 | 20 | 363 | | 363 | | 256 | 75 | 75 | 406 | 400 | 425 | 450 | 475 | 500 | 525 | 550 | 575 |
| Interest and inv income | 108 | (12) | - | - | 26 | 90 | 39 | 48 | 200 | 175 | 462 | 400 | 100 | - | - | - | - | - | - |
| Interest expense | - | - | - | - | - | (12) | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Change in FV of fin instruments | 297 | (339) | (698) | 4,383 | 1,911 | 5,257 | 8 | (1,317) | - | - | (1,309) | - | - | - | - | - | - | - | - |
| Pretax income | | | | | | | | | | | | | | | | 27,500 | 70,100 | 104,396 | 140,730 |
| Taxes | | | | | | | | | | | | | | | | | 1,375 | 7,010 | 14,093 |
| Tax rate | | | | | | | | | | | | | | | | | 5% | 10% | 14% |
| Net loss | (15,222) | (3,702) | (4,557) | (583) | (5,626) | (14,467) | (7,023) | (10,558) | (9,425) | (10,000) | (37,006) | (35,950) | (39,975) | (25,800) | 225 | 26,125 | 63,090 | 90,303 | 104,844 |
| EPS | (0.34) | (0.08) | (0.10) | (0.01) | (0.12) | (0.30) | (0.13) | (0.17) | (0.14) | (0.14) | (0.58) | (0.45) | (0.50) | (0.30) | 0.00 | 0.30 | 0.70 | 1.00 | 1.15 |
| FD Shares outstanding | 44,875 | 46,167 | 46,643 | 47,309 | 48,657 | 47,598 | 54,298 | 60,416 | 69,700 | 70,200 | 63,654 | 79,533 | 80,533 | 86,533 | 87,533 | 88,533 | 89,533 | 90,533 | 91,533 |

Source: ROTH Capital Partners and Company reports

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Synergy Pharmaceuticals Pipeline analysis

| | 2011A | | | | 2012E | | | | 2013E | | | | 2014E | | | | 2015E | | | | 2016E | | | |
|-----------------------------|-------|-----|-----|-----|-------|-----|-----|------|--|-----|-----|-----|----------------|-----|-----|-----|-------|-----|-----|-----|--------|-----|-----|-----|
| | 1QA | 2QA | 3QA | 4QA | 1QA | 2QA | 3QE | 4QE | 1QE | 2QE | 3QE | 4QE | 1QE | 2QE | 3QE | 4QE | 1QE | 2QE | 3QE | 4QE | 1QE | 2QE | 3QE | 4QE |
| Plecanatide (SP-304) | | | | | | | | | | | | | | | | | | | | | | | | |
| For CIC | | | | | | | | | | | | | | | | | | | | | | | | |
| Phase 2/3 CIC Pivotal | | | | | | | | DATA | Completed enrollment 8/13/2012, data in 4Q12 | | | | | | | | | | | | | | | |
| P3 CIC Pivotal | | | | | | | | | FDA | | | | DATA | | | | | | | | | | | |
| NDA | | | | | | | | | | | | | PARTNER OR M&A | | | | NDA | | | | | | | |
| Approval/Launch | | | | | | | | | | | | | | | | | | | | | LAUNCH | | | |
| Scenario 2 (another trial) | | | | | | | | | | | | | DATA | | | | | | | | | | | |
| IBS-C, P2 | | | | | | | | | | | | | >300 patients | | | | | | | | | | | |
| SP-333 | | | | | | | | | | | | | | | | | | | | | | | | |
| For ulcerative colitis | | | | | | | | | | | | | | | | | | | | | | | | |
| IND | | | | | | | | | | | | | | | | | | | | | | | | |
| Phase 1 | | | | | | | | DATA | | | | | | | | | | | | | | | | |
| Phase 1/2 program | | | | | | | | | | | | | | | | | | | | | | | | |
| Phase 2b | | | | | | | | | | | | | | | | | | | | | | | | |
| Phase 3 program | | | | | | | | | | | | | | | | | | | | | | | | |

Source: ROTH Capital Partners Forecasts

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Synergy Pharmaceuticals

Balance Sheets
December Year
values in \$000's

Net cash
Per share

47,587
0.79

| | 2010 | 2011 | 1Q12 | 2Q12 |
|--|----------|----------|----------|----------|
| ASSETS | | | | |
| Cash and equivalents | 1,708 | 13,245 | 6,123 | 43,577 |
| Prepaid and other | 998 | 1,063 | 1,618 | 1,409 |
| Total current assets | 2,705 | 14,308 | 7,741 | 44,985 |
| Property and equip, net | 8 | 6 | 5 | 2 |
| Avail for sale, LT | | | | 4,011 |
| Security deposits | 14 | 14 | 14 | 20 |
| Due from controlling shareholder | 1,674 | 1,541 | 1,820 | 1,937 |
| TOTAL ASSETS | 4,401 | 15,870 | 9,580 | 50,955 |
| LIABILITIES AND SHAREHOLDERS EQUITY | | | | |
| Accounts payable | 2,961 | 1,416 | 2,084 | 1,154 |
| Accrued expenses | 2,051 | 1,331 | 965 | 3,765 |
| Total current liabilities | 5,012 | 2,747 | 3,050 | 4,920 |
| Derivatives at FV | 3,488 | 3,325 | 3,317 | 4,804 |
| Total Liabilities | 8,500 | 6,072 | 6,367 | 9,723 |
| Shareholders equity | | | | |
| Preferred stock | - | - | - | - |
| Common stock | 5 | 5 | 5 | 7 |
| APIC | 51,038 | 79,401 | 79,839 | 128,415 |
| Accumulated deficit | (55,142) | (69,609) | (76,632) | (87,190) |
| Total Shareholders equity | (4,099) | 9,797 | 3,213 | 41,231 |
| Total liabs and SE | 4,401 | 15,870 | 9,580 | 50,955 |

Source: Company reports

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Synergy Pharmaceuticals

Statement of cash flows

December year

values in \$000's

| | 2010 | 2011 | 1Q12 | 2Q12 |
|------------------------------------|----------|----------|---------|----------|
| OPERATING ACTIVITIES | | | | |
| Net loss | (15,221) | (14,467) | (7,023) | (17,581) |
| Adjustments: | | | | |
| Deprec and amort | 2 | 2 | 0 | 1 |
| Stock comp | 712 | 822 | 438 | 792 |
| Loss (gain) on asset sales | - | - | - | 2 |
| Change in FV of derivatives | (297) | (5,257) | (8) | 1,149 |
| Changes in A and L: | | | | |
| Accounts payable and accr exp | 3,286 | (2,265) | 303 | 2,173 |
| Prepays and other CA | 64 | (66) | (554) | (351) |
| CASH FROM OPERATIONS | (11,454) | (21,231) | (6,843) | (13,815) |
| INVESTING ACTIVITIES | | | | |
| Loans from related parties | (702) | 133 | (278) | (395) |
| Change in avail for sale | | | | (20,000) |
| CASH FROM INVESTING | (702) | 133 | (278) | (20,395) |
| FINANCING ACTIVITIES | | | | |
| Issuance of CS from priv placement | 7,179 | 34,369 | - | 48,392 |
| Warrants, other | (468) | (1,733) | - | - |
| CASH FROM FINANCING | 6,711 | 32,636 | - | 48,392 |
| Change in cash | (5,445) | 11,537 | (7,122) | 14,182 |
| Cash at beginning of year | 7,153 | 1,708 | 13,245 | 13,245 |
| Cash at end of the year | 1,708 | 13,245 | 6,123 | 27,427 |

Obligations

| | |
|------------------|-------|
| Less than 1 year | 4,903 |
| 1-3 years | 1,935 |
| 3-5 years | - |
| More than 5 yrs | - |

Source: Company reports

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Disclosures:

Within the last twelve months, ROTH has received compensation for investment banking services from Synergy Pharmaceuticals, Inc..

ROTH makes a market in shares of Synergy Pharmaceuticals, Inc. and as such, buys and sells from customers on a principal basis.

Within the last twelve months, ROTH has managed or co-managed a public offering for Synergy Pharmaceuticals, Inc..

On September 28, 2010, ROTH changed its rating system in order to replace the Hold rating with Neutral.

On May 26, 2011, ROTH changed its rating system in order to incorporate coverage that is Under Review.



Each box on the Rating and Price Target History chart above represents a date on which an analyst made a change to a rating or price target, except for the first box, which may only represent the first note written during the past three years.

Distribution Ratings/IB Services shows the number of companies in each rating category from which Roth or an affiliate received compensation for investment banking services in the past 12 month.

Distribution of IB Services Firmwide

| Rating | Count | Percent | IB Serv./Past 12 Mos. as of 08/17/12 | |
|-------------------|-------|---------|---|---------|
| | | | Count | Percent |
| Buy [B] | 213 | 72.70 | 78 | 36.62 |
| Neutral [N] | 66 | 22.53 | 4 | 6.06 |
| Sell [S] | 2 | 0.68 | 0 | 0 |
| Under Review [UR] | 10 | 3.41 | 4 | 40.00 |

Our rating system attempts to incorporate industry, company and/or overall market risk and volatility. Consequently, at any given point in time, our investment rating on a stock and its implied price movement may not correspond to the stated 12-month price target.

Ratings System Definitions - ROTH employs a rating system based on the following:

Buy: A rating, which at the time it is instituted and or reiterated, that indicates an expectation of a total return of at least 10% over the next 12 months.

Neutral: A rating, which at the time it is instituted and or reiterated, that indicates an expectation of a total return between negative 10% and 10% over the next 12 months.

Sell: A rating, which at the time it is instituted and or reiterated, that indicates an expectation that the price will depreciate by more than 10% over the next 12 months.

Under Review [UR]: A rating, which at the time it is instituted and or reiterated, indicates the temporary removal of the prior rating, price target and estimates for the security. Prior rating, price target and estimates should no longer be relied upon for UR-rated securities.

Not Covered [NC]: ROTH does not publish research or have an opinion about this security.

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