

COMPANY

Rating: BUY

ATOS

\$1.06

(from \$7.50)

(intraday)

Target: \$7.00

Ticker:

Price:

UPDATE

Atossa Therapeutics, Inc.

Q2 about inline. Breast cancer clinical trials milestones and possible M&A in 2022 should be catalysts for stock. Lowering P/T to \$7.00.

Q2 about inline: Atossa recently (on August 8) reported its Q2 2022 (ending June) results. Net loss was \$6.7 million or EPS of \$(0.05), compared with our and consensus estimates of \$(0.06). There was no Q2 guidance. Atossa is a clinical stage drug development company so it generates no revenue.

Operating expenses: Operating expenses were \$6.6 million, up from \$4.7 million in Q1 2022 due to higher clinical activities.

No guidance: Management did not provide forward guidance, but we believe ~\$6 million to be a reasonable near term quarterly cash burn rate.

Maintaining estimates: We are maintaining our 2022 EPS estimate of \$(0.20).

Focused on 3 drugs in development: Atossa has three main therapeutic drug candidates, two for COVID-19 and one for breast cancer (for 2 settings).

Focusing away from COVID-19: Atossa has two COVID-19 drugs under development: 1) AT-H201 and 2) AT-301. In July, the company announced a shift in focus for AT-H201 away from COVID-19 and towards oncology due to wide spread COVID-19 vaccine and therapeutics options.

Breast cancer: Atossa's breast cancer drug under development is its proprietary form of Endoxifen which is being developed primarily in two settings: 1) to reduce tumor cell activity in breast cancer patients in the "window of opportunity" between diagnosis of breast cancer and surgery; and 2) for women with high mammographic breast density ("MBD") to reduce the density and/or to act as an adjunct to mammography.

1 clinical trial in progress: In December, Atossa began to enroll patients in its clinical study of Endoxifen in Sweden.

IND planned in Q3: The company submitted an IND to the FDA in Q2 2022 to compare Endoxifen to standard of care in premenopausal women with breast cancer. The FDA has requested more information which the company plans to submit in Q3 with likely initiation of the study in Q4.

Positive data so far: In February 2021, Atossa announced final positive results from its Phase 1 clinical trial of AT-301. In February 2021, its Endoxifen in WOO trial halted early due to substantial positive data. The company is awaiting approval or inputs from the FDA to advance the two into the next phase of clinical trials (expected in the next year) in the U.S.

Potential CAR-T acquisition: In July, the company entered into an agreement to negotiate to acquire a pre-clinical stage private company developing novel Chimeric Antigen Receptor (CAR) T-cell therapies. Atossa paid \$3 million for the exclusive right to negotiate with the CAR-T Company until November 1, 2022.

Clinical data and M&A can be catalysts: Atossa anticipates starting/finishing its various clinical trials over the next year. We believe achieving key clinical milestones and the pending acquisition will likely be catalysts for the stock.

Positive high risks versus high rewards: Overall, concerns outweighed by growth prospects and valuation. Atossa's drugs still have long development roads left and the high risks of clinical trials failures, but we believe the ~billion dollars market potential presents high rewards for the risks.

Current valuation attractive: We are maintaining our BUY rating, but lowering our 12-month price target to \$7.00 from \$7.50 based on a NPV analysis. This represents significant upside from the current share price. We believe this valuation appropriately balances out the company's high risks with the company's high growth prospects and large upside opportunities.

Company Description

Based in Seattle, WA, Atossa Therapeutics is a clinical-stage biopharmaceutical company focused on COVID-19 and breast cancer drugs development.

United States Healthcare

August 17, 2022

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Stock Data

Exchange:	${\sf NasdaqCM}$
52-week Range:	\$0.84 - 4.3
Shares Outstanding (million):	127
Market cap (\$million):	\$135
EV (\$million):	\$9
Debt (\$million):	\$0
Cash (\$million):	\$126
Avg. Daily Trading Vol. (\$million):	\$3
Float (million shares):	119
Short Interest (million shares):	12
Dividend, annual (yield):	\$0 (NA%)

Revenues (US\$ million)

	<u>2022E</u> (Cur.)	<u>2022E</u> (Old)	2023E (Cur.)	2023E (Old)
Q1 Mar	0A		0E	
Q2 Jun	0A	0E	0E	
Q3 Sep	0E		0E	
Q4 Dec	<u>0E</u>		<u>0E</u>	
Total	0E		0E	
EV/Revs	N/A		N/A	

Earnings per Share (pro forma)

	2022E	2022E	2023E	2023E
	(Cur.)	(Old)	(Cur.)	(Old)
Q1 Mar	(0.04)A		(0.06)E	
Q2 Jun	(0.05)A	(0.06)E	(0.06)E	
Q3 Sep	(0.06)E		(0.06)E	
Q4 Dec	(0.06)E		(0.05)E	
Total	(0.20)E		(0.22)E	
P/E	N/A		N/A	

Important Disclosures

Ascendiant Capital Markets LLC seeks to do business with companies covered by its research team. Consequently, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making an investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report, beginning on page 15.



Exhibit 1: Atossa Therapeutics, Inc. (as of May 2022)

Atossa Investment Highlights



Clinical Summary

Endoxifen for Breast Health:

- Metabolite of tamoxifen FDA-approved drug to treat and prevent breast cancer in high risk women
- Completed studies over 160 participants in Atossa-conducted clinical studies
- Pharmacodynamic (PD) and safety Phase 2 being conducted in Stockholm; 240 women with measurable mammographic breast density (MBD) dosed over six months
- · Neoadjuvant (or, window of opportunity) -
 - successful Phase 2 recently completed in Australia
 - U.S. IND planned for Q2 2022

COVID-19: TWO Therapeutic Programs

AT-301 Nasal Spray

- Intended for at-home use to reduce symptoms of COVID-19 and slow infection rate
- Phase 1 completed now conducting additional pre-clinical studies

AT-H201 Inhalation Therapy

- H201 a proprietary combo of two drugs approved by the FDA to treat other diseases
- intended to improve lung function for moderate to severely ill, hospitalized COVID-19 patients and to improve pulmonary function in long haul patients
- · Phase 1/2a study underway in Australia



Exhibit 2: Atossa Market Opportunities

Large Market Opportunities





Source: Company reports.

Exhibit 3: Atossa Drug Development Pipeline (as of May 2022)

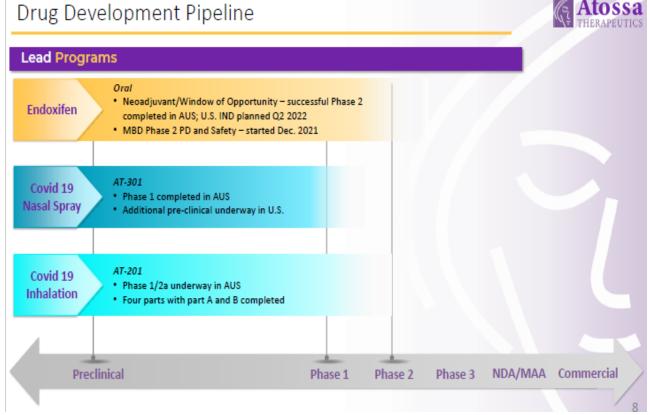




Exhibit 4: ENDOXIFEN Clinical Positioning In Breast Cancer Neoadjuvant/Window **Prevention Setting Adjuvant Setting** of Opportunity Suspicious Radiation/ Lump **Biopsy** Tamoxifen Diagnosis (5-10 years) Endoxifen Endoxifen Strong Pharmacoeconomic Value Proposition Value Proposition Case to Payers · Potential Improvement in Breast · Many patients are refractory Prevention of cancer in at-Conservation Rate to Tamoxifen risk patients · Tamoxifen - delayed response and low usage Tamoxifen has negative side Reduction or elimination of effects The Breast Cancer Problem 2nd 281,000 1 in 8 leading cause of women experience women diagnosed cancer death in in US annually breast cancer American women



Exhibit 5: Endoxifen Clinical Trials (as of May 2022)

Endoxfen Phase 2 Study in Stockholm

- · Being conducted in Stockholm by So. Gen. Hospital
- Primary objective PD study to determine the dose-response relationship of daily Endoxifen on MBD reduction
- Secondary endpoints safety and tolerability
- Randomized, double-blinded and placebo-controlled
- 240 pre-menopausal women with measurable MBD dosed for six months
- Principal investigator Per Hall, M.D., Ph.D., Head of the Department of Medical Epidemiology and Biostatistics at Karolinska Institute

Endoxifen – Recent Successful Phase 2 Study in AUS



Phase 2 Open Label Study Of Endoxifen In Patients With Invasive Breast Cancer (Woo Study)

- Population: ER+, HER2- invasive breast cancer requiring lumpectomy or mastectomy
- Daily oral dosing time period between diagnosis and surgery
- Primary Endpoint: Reduced Ki-67 tumor cell activity
- Secondary Endpoints: Safety and tolerability; estrogen receptor and progesterone receptor expression; correlate changes in pharmacodynamic markers to endoxifen blood levels



Endoxifen – Potential Pathway in U.S.

- Goal: conduct additional studies in U.S., including in the neoadjuvant setting
- FDA: Pre-IND meeting held with FDA in December 2021
- Based on FDA input:
 - planning Phase 2 study with U.S. IND filing in Q2 2022
 - planning to use CRO and major research institutions in U.S.
- Partnering: Planning to seek partner on future studies



Exhibit 6: COVID-19 Opportunities

THERAPEUTICS FOR COVID-19



Ongoing pandemic justifies new therapeutics:

- As an alternative: many people continue to show reluctance to take traditional vaccine
- As a belt and suspenders approach: Efficacy of vaccines may diminish over time
- As a bridge to vaccine 2.0: SARS-CoV-2 is rapidly responding with deadlier and more infectious variants
- <u>Post-COVID recovery</u>: Up to 35% of COVID patients having residual lung function problems



Exhibit 7: COVID-19 Therapeutic Needs

FOUR COVID-19 THERAPEUTIC NEEDS Atossa





Nasal Spray Before Dx or upon Dx To prevent disease To treat early disease To prevent pulmonary disease



Inhalation drug To treat post-infection pulmonary disease



Systemic drug upon entry to hospital To treat pneumonia To prevent blood stream infection

Inhalation drug To prevent using ventilator To wean from ventilator

COVID-19 PROGRESSION











Stage Two
Day 3 to 10 Pulmonary disease/ pneumonia

Stage Three
Day 10 to ??
Systemic disease

Stage One Day 0 to 3 Infection in nasal cavity



Exhibit 8: AT-H201

Atossa's AT-H201

- Under development for COVID-19 moderate to severely ill patients to improve lung function and for long-haul patients
- Combination of two drugs previously approved by the FDA for other diseases
- Phase 1/2a underway in AUS:
 - Progress: Part A and B
 - Study design: placebo-controlled, 60 healthy participants and moderately-ill hospitalized COVID-19 patients, in 4 parts: a single ascending dose part, a multiple ascending dose part, a combination part in healthy individuals, and subject to additional regulatory approval a combination in COVID-19 infected patients

Source: Company reports

Exhibit 9: AT-301

AT-301 COVID-19 Nasal Spray

- Nasal spray delivery targets infections in nasal passage "nasal mucosa vaccine"
- Out-patient/home use
- Phase 1 completed appears safe and well tolerated
- Provisional patent applications filed
- Summit Biosciences developing formulation/device
- Conducting additional pre-clinical studies



Exhibit 10: Q2 2022 and Recent Company Highlights

Key developments from Q2 2022 and to date include:

- Completed dosing in both Part B and Part C (of four parts) of Phase 1/2a Clinical
 Trial of AT-H201 in healthy volunteers, which the Company was developing as an
 inhalation therapy for moderately to severely ill hospitalized COVID-19 patients
 and for "long-haul" patients with post-infection pulmonary disease.
- Announced plans to shift the development of AT-H201 to more closely align with its oncology focus by continuing the development in patients with compromised lung function due to the damaging effects of cancer treatment.
- Entered into an agreement with a venture-capital backed, private company
 based in the United States that is in the pre-clinical stage of developing novel
 Chimeric Antigen Receptor (CAR) T-cell therapies based on technology licensed
 from a leading U.S. adult and pediatric cancer treatment and research institution.
 The agreement requires that up until November 1, 2022 the CAR-T company will
 negotiate exclusively with Atossa for Atossa to acquire the CAR-T company, and
 address certain matters related to personnel, operations and intellectual
 property.
- Filed an investigational new drug application with the FDA to initiate a Phase 2
 neoadjuvant clinical study of Atossa's proprietary Endoxifen in premenopausal
 women with early-stage estrogen receptor positive and Human Epidermal
 Growth Factor Receptor 2 negative breast cancer in the United States. The FDA
 has issued a clinical hold letter requesting additional information which Atossa
 plans to submit by the end of the third quarter 2022 and to initiate enrollment in
 the fourth quarter 2022.





The Company's upcoming plans with its current programs include the following:

- Endoxifen neoadjuvant program: Atossa plans to submit to the FDA an IND to conduct a Phase 2 study in the U.S. to compare Endoxifen to standard of care in premenopausal women with breast cancer. It will conduct a pharmacokinetic runin study as a part of the Phase 2 study to further define potential dose levels. A CRO has been engaged to work on this study and the Company also intends to retain a leading U.S. research institution to help design and manage the study. Atossa anticipates submitting an IND in the second quarter of 2022 and then promptly commencing a Phase 2 study in this neoadjuvant setting, assuming FDA acceptance.
- Endoxifen for women with measurable breast density: The Company will continue to enroll participants in its Endoxifen Phase 2 clinical study in Stockholm.
- COVID-19 therapies under development: With respect to the ongoing AT-H2O1
 Phase 1/2a clinical study, Atossa plans to complete enrollment in the second part
 in the second quarter 2022 and complete the third part of the study in the third
 quarter 2022. In 2022, the Company plans to continue the additional pre-clinical
 testing on its nasal spray AT-3O1 and then to further characterize the API in
 AT-3O1 starting in the third quarter 2022.







Source: https://bigcharts.marketwatch.com/

Exhibit 13: Consensus Expectations (as of August 8, 2022)

	Revenue (mil)			EPS	
	<u>2022E</u>	2023E		<u>2022E</u>	2023E
Q1 Mar	\$0A		Q1 Mar	\$(0.04)A	
Q2 Jun	\$0E		Q2 Jun	\$(0.06)E	
Q3 Sep	\$0E		Q3 Sep	\$(0.06)E	
Q4 Dec			Q4 Dec		
Total	\$0E	\$0E	Total	\$(0.20)E	\$(0.20)E

^{*}Quarterly estimates may not add to annual estimates due to variations in contributing estimates and rounding.

Source: Company report, Refinitiv, and Ascendiant Capital Markets estimates



FINANCIAL MODEL

Atossa Therapeutics, Inc.

Name	Atossa Therapeutics,																1				
Total Revenue 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Income Statement (\$ mils)															-					
Cost of Revenues O.O. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
Research and development Congruence (Sap 1, 1) 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	Total Revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Research and development Congruence (Congruence) Congr	Cost of Revenues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
General and administrative Restricturing and other Total operating expenses 2.9 3.9 3.5 4.2 14.6 3.5 7.0 5.2 4.8 20.5 4.7 6.6 7.0 7.0 25.3 7.0 7.0 7.0 7.0 7.0 7.0 28.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0																					
Restricturing and other Total operating expenses 2.9 3.9 3.5 4.2 14.6 3.5 7.0 5.2 4.8 20.5 (4.7) (6.6) (7.0) 7.0 25.3 (7.0) (7.0) (7.0) (7.0) (7.0) (28.0) (7.0) (Research and development	0.9	1.7	1.7	2.4	6.6	1.4	3.8	2.2	1.8	9.2	1.5	3.4	4.0	4.0	12.9	4.0	4.0	4.0	4.0	16.0
Total operating expenses	General and administrative	2.0	2.3	1.8	1.9	8.0	2.2	3.2	3.0	3.0	11.3	3.2	3.2	3.0	3.0	12.4	3.0	3.0	3.0	3.0	12.0
Departing income (loss) (2.9) (3.9) (3.5) (4.2) (14.6) (3.5) (7.0) (5.2) (4.8) (20.5) (4.7) (6.6) (7.0) (7.0) (25.3) (7.0) (7.0) (7.0) (7.0) (7.0) (7.0) (2	Restructuring and other					0.0															
Interest income (expense) (0,0)	Total operating expenses	2.9	3.9	3.5	4.2	14.6	3.5	7.0	5.2	4.8	20.5	4.7	6.6	7.0	7.0	25.3	7.0	7.0	7.0	7.0	28.0
Other income (expense) Income legislation (2.9) (3.9) (3.5) (12.0) (2.2) (3.5) (7.0) (2.2) (2.3) (3.5) (7.0) (5.2) (4.8) (20.6) (4.8) (6.7) (7.0) (7.0) (25.5) (7.0) (7.0) (7.0) (7.0) (7.0) (28.0) Net income (pro forma) (2.9) (3.9) (3.5) (12.0) (22.3) (3.5) (12.0) (22.3) (3.5) (7.0) (5.2) (4.8) (20.6) (4.8) (6.7) (7.0) (7.0) (7.0) (25.5) (7.0) (7.0) (7.0) (7.0) (7.0) (28.0) Net income (pro forma) (2.9) (3.9) (3.5) (12.0) (22.3) (3.5) (12.0) (22.3) (3.5) (7.0) (5.2) (4.8) (20.6) (4.8) (6.7) (7.0) (7.0) (7.0) (7.0) (25.5) (7.0) (7.0) (7.0) (7.0) (7.0) (28.0) Net income (pro forma) (2.9) (3.9) (3.5) (12.0) (22.3) (3.5) (12.0) (22.3) (3.5) (7.0) (5.2) (4.8) (20.6) (4.8) (6.7) (7.0) (7.0) (7.0) (7.0) (25.5) (7.0) (7.0) (7.0) (7.0) (7.0) (28.0) Net income (pro forma) (2.9) (3.9) (3.5) (12.0) (22.3) (3.5) (12.0) (22.3) (3.5) (7.0) (5.2) (4.8) (20.6) (4.8) (6.7) (7.0) (7.0) (7.0) (7.0) (25.5) (7.0) (7.0) (7.0) (7.0) (7.0) (28.0) EBITDA Shares, Basic 9.1 9.2 10.2 16.7 11.3 92.6 121.6 126.5 126.6 117.0 126.6 126.6 126.7 126.8 126.7 127.0 127.1 127.2 127.3 127.2 Shares, Diluted 9.1 9.2 10.2 16.7 11.3 92.6 121.6 126.5 126.6 117.0 126.6 126.6 126.7 126.8 126.7 126.8 126.7 127.0 127.1 127.2 127.3 127.2 EPS Basic (pro forma) (30.32) (50.43) (50.34) (50.72) (51.97) (50.04) (50.06) (50.04) (50.04) (50.18) (50.04) (50.05) (50.06) (50.	Operating income (loss)	(2.9)	(3.9)	(3.5)	(4.2)	(14.6)	(3.5)	(7.0)	(5.2)	(4.8)	(20.5)	(4.7)	(6.6)	(7.0)	(7.0)	(25.3)	(7.0)	(7.0)	(7.0)	(7.0)	(28.0)
Income taxes C.9 (3.9) (3.5) (12.0) (22.3) (3.5) (12.0) (22.3) (3.5) (7.0) (5.2) (4.8) (20.6) (4.8) (6.7) (7.0) (7.0) (7.0) (2.5.5) (7.0) (7.0) (7.0) (7.0) (7.0) (2.0)	Interest income (expense)			0.0	(0.0)	0.0					0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income taxes (2.9) (3.9) (3.5) (12.0) (2.2) (3.5) (12.0) (2.2.3) (3.5) (7.0) (5.2) (4.8) (20.6) (4.8) (6.7) (7.0) (7.0) (25.5) (7.0) (7.0) (7.0) (7.0) (7.0) (7.0) (7.0) (7.0) (28.0)	Other income (expense)	(0.0)	0.0		(7.7)	(7.7)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)	(0.0)	(0.1)	0.0	0.0	(0.1)	0.0	0.0	0.0	0.0	0.0
Net income (loss) (2.9) (3.9) (3.5) (12.0) (22.3) (3.5) (7.0) (5.2) (4.8) (20.6) (4.8) (6.7) (7.0) (7.0) (7.0) (25.5) (7.0) (7.0) (7.0) (7.0) (7.0) (7.0) (28.0) (7.0)	Income before income taxes	(2.9)	(3.9)	(3.5)	(12.0)	(22.3)	(3.5)	(7.0)	(5.2)	(4.8)	(20.6)	(4.8)	(6.7)	(7.0)	(7.0)	(25.5)	(7.0)	(7.0)	(7.0)	(7.0)	(28.0)
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EBITDA Shares, Basic 9.1 9.2 10.2 16.7 11.3 92.6 121.6 126.5 126.6 117.0 126.6 126.6 126.7 126.8 126.7 127.0 127.1 127.2 127.3 127	Net income (loss)	(2.9)	(3.9)	(3.5)	(12.0)	(22.3)	(3.5)	(7.0)	(5.2)	(4.8)	(20.6)	(4.8)	(6.7)	(7.0)	(7.0)	(25.5)	(7.0)	(7.0)	(7.0)	(7.0)	(28.0)
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Shares, Diluted 9.1 9.2 10.2 16.7 11.3 92.6 121.6 126.5 126.6 117.0 126.6 126.6 126.7 126.8 126.7 126.8 126.7 127.0 127.1 127.2 127.3 127.2 127.3 127.2 EPS Basic (pro forma) (\$0.32) (\$0.43) (\$0.34) (\$0.72) (\$1.97) (\$0.04) (\$0.06) (\$0.04) (\$0.04) (\$0.04) (\$0.04) (\$0.05) (\$0.04) (\$0.05) (\$0.05) (\$0.06) (\$0.06) (\$0.06) (\$0.06) (\$0.06) (\$0.06) (\$0.06) (\$0.06) (\$0.06) (\$0.05) (\$0.02) (\$0.06)	EBITDA																				
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Solid Control	Shares, Diluted	9.1	9.2	10.2	16.7	11.3	92.6	121.6	126.5	126.6	117.0	126.6	126.6	126.7	126.8	126.7	127.0	127.1	127.2	127.3	127.2
Margins Gross margin NIM	EPS Basic (pro forma)	(\$0.32)	(\$0.43)	(\$0.34)	(\$0.72)	(\$1.97)	(\$0.04)	(\$0.06)	(\$0.04)	(\$0.04)	(\$0.18)	(\$0.04)	(\$0.05)	(\$0.06)	(\$0.06)	(\$0.20)	(\$0.06)	(\$0.06)	(\$0.06)	(\$0.05)	(\$0.22)
Gross margin Research and development General and administrative Operating margin NM N	EPS Diluted (pro forma)	(\$0.32)	(\$0.43)	(\$0.34)	(\$0.72)	(\$1.98)	(\$0.04)	(\$0.06)	(\$0.04)	(\$0.04)	(\$0.18)	(\$0.04)	(\$0.05)	(\$0.06)	(\$0.06)	(\$0.20)	(\$0.06)	(\$0.06)	(\$0.06)	(\$0.05)	(\$0.22)
Research and development General and administrative Operating margin NM	Margins																				
General and administrative Operating margin NIM																					
Tax rate, GAAP 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%																					
Tax rate, GAAP 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%		NM	l _{NM}	NM																	
Y/Y % change Total Revenue Gross margin Research and development -35% -37% -1% 15% 9% -25% 8% 40% 60% 61% 41% 51% -1% 2% 0% 160 40% -38% Operating income (loss) -28% -46% 6% 61% -15% 20% 78% 47% 14% 40% 40% 34% -6% 36% 45% 23% 47% 6% 0% 0% 10% Net income (loss) -28% -46% 6% 6% 358% 30% 20% 80% 80% 49% -60% -60% -8% 35% -5% 35% 45% 24% 46% 5% 0% 0% 0% 10%		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%
Total Revenue Gross margin Research and development -35% -37% -1% 15% 9% -25% 8% 40% 60% 61% 41% 51% -1% 2% 0% 10% -8% -5% 0% 0% 0% 0% 0% 0% 09% 09% 09% 09% 09%	Net margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM										
Research and development	_																				
Research and development	Gross margin																				
Operating income (loss) -28% -46% 6% 61% -15% 20% 78% 47% 14% 40% 34% -6% 36% 45% 23% 47% 6% 0% 0% 0% 10% Net income (loss) -28% -46% 6% 358% 30% 20% 80% 49% -60% -8% 35% -5% 35% 45% 24% 46% 5% 0% 0% 10%	_	-35%	-37%	-1%	163%	-1%	47%	130%	33%	-23%	39%	9%	-10%	81%	119%	40%	167%	17%	0%	0%	24%
Net income (loss) -28% -46% 6% 358% 30% 20% 80% 49% -60% -8% 35% -5% 35% 45% 24% 46% 5% 0% 0% 10%	General and administrative	-24%	-51%	15%	9%	-25%	8%	40%	60%	61%	41%	51%	-1%	2%	0%	10%	-8%	-5%	0%	0%	-3%
	Operating income (loss)	-28%	-46%	6%	61%	-15%	20%	78%	47%	14%	40%	34%	-6%	36%	45%	23%	47%	6%	0%	0%	10%
EPS Diluted (pro forma) -48% -47% -5% 150% -3% -88% -86% -88% -95% -91% -1% -9% 34% 45% 14% 46% 5% 0% 0% 10%	Net income (loss)	-28%	-46%	6%	358%	30%	20%	80%	49%	-60%	-8%	35%	-5%	35%	45%	24%	46%	5%	0%	0%	10%
	EPS Diluted (pro forma)	-48%	-47%	-5%	150%	-3%	-88%	-86%	-88%	-95%	-91%	-1%	-9%	34%	45%	14%	46%	5%	0%	0%	10%

Source: Company reports and Ascendiant Capital Markets estimates.



Atossa Therapeutics, Inc.

Balance Sheet (\$ mils)	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	•		Mar-22		Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23
iscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
Assets																
Cash and cash equivalents	9.4	7.5	9.1	39.6	137.6	142.4	140.0	136.4	131.5	125.5	120.4	115.2	110.0	104.7	99.5	94.
Short term investments											0.0	0.0	0.0	0.0	0.0	0.
Restricted cash	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.
Research and development tax rebat	0.7	0.8	0.4	0.6	0.7	0.8	0.9	1.1		0.9	0.9	0.9	0.9	0.9	0.9	0
Deferred income taxes											0.0	0.0	0.0	0.0	0.0	0
Prepaid expenses and other	1.5	1.7	1.7	2.5	2.6	2.5	1.9	3.7	5.3	6.9	6.9	6.9	6.9	6.9	6.9	<u>6</u>
Total current assets	11.7	10.1	11.3	42.8	141.0	145.8	143.0	141.2	136.8	133.4	128.3	123.1	117.8	112.6	107.4	102
Property and equipment, net	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Intangibles, net	0.1	0.1	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0	0
Deferred income tax											0.0	0.0	0.0	0.0	0.0	0
Other	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0
Total assets	11.8	10.2	11.4	42.8	141.1	145.9	143.0	141.3	137.5	134.0	128.9	123.7	118.5	113.2	108.0	102
Liabilities and stockholders' equity																
Accounts payable	0.4	1.0	0.7	1.6	0.7	0.5	0.7	1.7	1.6	2.1	2.1	2.1	2.1	2.1	2.1	2
Accrued expenses	0.5	0.7	0.8	0.1	0.6	1.2	1.0	1.4	0.7	1.7	1.7	1.7	1.7	1.7	1.7	1
Deferred income tax											0.0	0.0	0.0	0.0	0.0	0
Warrant liabilities				13.0							0.0	0.0	0.0	0.0	0.0	0
Other	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Short term debt											0.0	0.0	0.0	0.0	0.0	0
Total current liabilities	0.9	1.8	1.6	15.7	1.4	1.8	1.7	3.1	2.3	3.8	3.8	3.8	3.8	3.8	3.8	3
Deferred income taxes											0.0	0.0	0.0	0.0	0.0	0
Warrant liabilities											0.0	0.0	0.0	0.0	0.0	0
Other long term liabilities	0.0	0.0	0.0								0.0	0.0	0.0	0.0	0.0	0
Long term debt											0.0	0.0	0.0	0.0	0.0	0
Total other liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Preferred stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0
Common stock	1.6	1.7	1.9	8.6	21.7	22.7	22.8	22.8	22.8	22.8	24.6	26.3	28.1	29.9	31.6	33
Additional paid-in capital	106.3	107.6	112.4	130.5	230.1	240.6	243.0	244.0	245.8	247.6	247.6	247.6	247.6	247.6	247.6	247
Retained earnings	(97.0)	(100.9)	(104.4)	(111.9)	(112.2)	(119.2)	(124.4)	(129.2)	(134.0)	(140.7)	(147.7)	(154.7)	(161.7)	(168.7)	(175.7)	(182
Accumulated other comprehensive inc			, ,	,	` ′	, ,			l' '		0.1	0.1	0.1	0.1	0.1	0
Total stockholders' equity	10.9	8.4	9.9	27.2	139.7	144.1	141.3	138.1	135.2	130.3	125.1	119.9	114.7	109.5	104.2	99
Total stockholders' equity and liabili	11.8	10.2	11.4	42.8	141.1	145.9	143.0	141.3	137.5	134.0	128.9	123.7	118.5	113.2	108.0	102.

Balance Sheet Drivers

	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23
	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
Book & Cash Value (per share)																
Book Value per Share (diluted)	\$1.19	\$0.91	\$0.97	\$1.63	\$1.51	\$1.19	\$1.12	\$1.09	\$1.07	\$1.03	\$0.99	\$0.95	\$0.90	\$0.86	\$0.82	\$0.78
Cash per Share (diluted)	\$1.02	\$0.81	\$0.90	\$2.37	\$1.49	\$1.17	\$1.11	\$1.08	\$1.04	\$0.99	\$0.95	\$0.91	\$0.87	\$0.82	\$0.78	\$0.74
Net cash per Share (diluted)	\$1.02	\$0.81	\$0.90	\$2.37	\$1.49	\$1.17	\$1.11	\$1.08	\$1.04	\$0.99	\$0.95	\$0.91	\$0.87	\$0.82	\$0.78	\$0.74

Source: Company reports and Ascendiant Capital Markets estimates



Cash Flow Statement (\$ mils)	Mar-20	Jun-20	Sep-20	Dec-20	2020	Mar-21	Jun-21	Sep-21	Dec-21	2021	Mar-22	Jun-22	Sep-22	Dec-22	2022	Mar-23	Jun-23	Sep-23	Dec-23	2023
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
	Į.																			ĺ
Cash flow from operating acti																				ĺ
Net income	(2.9)	(3.9)	(3.5)	(7.5)	(17.8)	(3.5)	(7.0)	(5.2)	(4.8)	(20.6)	(4.8)	(6.7)	(7.0)	(7.0)	(25.5)	(7.0)	(7.0)	(7.0)	(7.0)	(28.0)
Depreciation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortization					0.0					0.0					0.0					0.0
Debt related amortization expe					0.0					0.0					0.0					0.0
Stock comp	0.7	1.0	0.7	0.6	3.0	0.6	1.2	1.8	1.6	5.3	1.8	1.8	1.8	1.8	7.1	1.8	1.8	1.8	1.8	7.1
Deferred rent					0.0					0.0					0.0					0.0
A/R reserves					0.0					0.0					0.0					0.0
Deferred income taxes					0.0					0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Change in fair value of warran	liability			3.3	3.3					0.0					0.0					0.0
Writedowns and impairments		0.0	0.0	0.0	0.0					0.0					0.0					0.0
Other gains/losses					0.0					0.0					0.0					0.0
Other					0.0					0.0		0.0			0.0					0.0
Changes in operating assets and																				ĺ
Prepaid expenses & other cur		(0.1)	(0.0)	(0.3)	(1.0)	(0.7)	0.2	0.5	(0.6)	(0.7)	(1.4)	(1.4)	0.0	0.0	(2.8)	0.0	0.0	0.0	0.0	0.0
Research and development ta	x 0.0	(0.0)	0.3	(0.2)	0.1	(0.1)	(0.1)	(0.1)	(0.1)	(0.4)	0.4	(0.2)			0.2					0.0
Income tax					0.0					0.0					0.0					0.0
Other assets	(0.1)	(0.1)	0.1	(0.5)	(0.6)	0.6	0.0	0.1	(1.2)	(0.5)	(0.1)	(0.9)	0.0	0.0	(1.0)	0.0	0.0	0.0	0.0	0.0
Accounts payable	0.1	0.7	(0.4)	0.9	1.3	(0.9)	(0.2)	0.1	1.0	0.1	(0.1)	0.5	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Accrued expenses	(0.5)	0.2	0.1	0.2	0.1	(0.4)	0.6	(0.2)	0.4	0.3	(0.1)	0.7	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Other liabilities	(0.0)	0.0	0.0	(0.0)	(0.0)	0.0	0.0	(0.0)	0.0	0.0	(0.6)	0.3	0.0	0.0	(0.3)	0.0	0.0	0.0	0.0	0.0
Net cash (used in) provided b	(3.2)	(2.2)	(2.7)	(3.4)	(11.6)	(4.4)	(5.3)	(3.1)	(3.7)	(16.5)	(4.9)	(5.9)	(5.2)	(5.2)	(21.3)	(5.2)	(5.2)	(5.2)	(5.2)	(20.9
Cash flow from investing activ	ities																			
Purchases of property and eq	uipment	(0.0)	(0.0)		(0.0)			(0.0)	0.0	(0.0)	(0.0)		(0.0)	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)	(0.1
Purchases of short-term inves		(/	(/		0.0			(/		0.0	(/		(/		0.0		(/		(/	0.0
Acquisitions					0.0					0.0					0.0					0.0
Other					0.0					0.0					0.0					0.0
Net cash used in investing ac	iv 0.0	(0.0)	(0.0)	0.0	(0.0)	0.0	0.0	(0.0)	0.0	(0.0)	(0.0)	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)	(0.1
Cash flow from financing activ	ities																			İ
Issuance of debt					0.0					0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Repayment of debt					0.0					0.0					0.0					0.0
Issuance of stock		0.3	4.3	33.9	38.6	69.7			(0.0)	69.7			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from stock option ex	ercises		(0.0)		(0.0)	32.8	10.2	0.7	0.0	43.6					0.0					0.0
Other					0.0					0.0					0.0					0.0
Dividends and distributions					0.0					0.0					0.0					0.0
Cash provided by (used in) fir	a 0.0	0.3	4.3	33.9	38.6	102.4	10.2	0.7	0.0	113.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Effect of exchange rate on cash					0.0					0.0					0.0					0.0
Net increase (decrease) in cas	h (3.2)	(1.9)	1.6	30.4	27.0	98.0	4.9	(2.4)	(3.7)	96.8	(4.9)	(5.9)	(5.2)	(5.2)	(21.3)	(5.2)	(5.3)	(5.2)	(5.3)	(21.0
Beginning cash and equivalen		9.5	7.6	9.2	12.7	39.7	137.7	142.5	140.2	39.7	136.5	131.6	125.6	120.4	136.5	115.2	110.0	104.7	99.5	115.2
Ending cash and equivalents	9.5	7.6	9.2	39.7	39.7	137.7	142.5	140.2	136.5	136.5	131.6	125.6	120.4	115.2	115.2	110.0	104.7	99.5	94.2	94.2

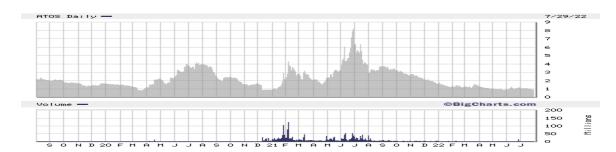
Source: Company reports and Ascendiant Capital Markets estimates



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Atossa Therapeutics, Inc.



Source: https://bigcharts.marketwatch.com/

	Report Date		Price
Report	Date	Rating	Target
1	9/17/2020	Buy	7.00
2	11/15/2020	Buy	7.50
3	4/6/2021	Buy	7.75
4	5/31/2021	Buy	8.00
5	9/7/2021	Buy	8.50
6	11/20/2021	Buy	8.75
7	3/3/2022	Buy	8.00
8	5/29/2022	Buy	7.50

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Risks to attainment of our share price target include balance sheet/liquidity risks, failure of product candidates to demonstrate safety and efficacy in clinical trials, failure to gain regulatory approvals, ability to commercialize product, failure to obtain suitable reimbursement, competition, changing macroeconomic factors, investor sentiment for investing in biotech stocks, and changes in consumer or government priorities for healthcare.

Ascendiant Capital Markets, LLC Rating System

BUY: We expect the stock to provide a total return of 15% or more within a 12-month period.

HOLD: We expect the stock to provide a total return of negative 15% to positive 15% within a 12-month period.

SELL: We expect the stock to have a negative total return of more than 15% within a 12-month period.

Total return is defined as price appreciation plus dividend yield.

Ascendiant Capital Markets, LLC Rating System

Prior to January 31, 2014, ASCM used the following rating system:

Strong Buy: We expect the stock to provide a total return of 30% or more within a 12-month period.

Buy: We expect the stock to provide a total return of between 10% and 30% within a 12-month period.

Neutral: We expect the stock to provide a total return of between minus 10% and plus 10% within a 12-month period.

Sell: We expect the stock to provide a total return of minus 10% or worse within a 12-month period.

Speculative Buy: This rating is reserved for companies we believe have tremendous potential, but whose stocks are illiquid or

whose equity market capitalizations are very small, often in the definition of a nano cap (below \$50 million in market cap). In general, for stocks ranked in this category, we expect the stock to provide a total return of 50% or more within a 12-month period. However, because of the illiquid nature of the stock's trading and/or the nano

cap nature of the investment, we caution that these investments may not be suitable for all parties.

Total return is defined as price appreciation plus dividend yield.

Ascendiant Capital Markets, LLC Distribution of Investment Ratings (as of July 14, 2022)

Investment Banking Services Past 12 months

Rating	Count	Percent	Count	Percent
Buy	41	98%	15	37%
Hold	0	0%	0	0%
Sell	1	2%	0	0%
Total	42	100%	15	36%



Other Important Disclosures

Our analysts use various valuation methodologies including discounted cash flow, price/earnings (P/E), enterprise value/EBITDAS, and P/E to growth rate, among others. Risks to our price targets include failure to achieve financial results, product risk, regulatory risk, general market conditions, and the risk of a change in economic conditions.

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