



# Atossa Therapeutics, Inc.

Q1 about inline. COVID-19 and breast cancer clinical trials milestones in 2022 should be catalysts for stock. Lowering P/T to \$7.50.

**Q1 about inline:** Atossa recently (on May 9) reported its Q1 2022 (ending March) results. Net loss was \$4.8 million or EPS of \$(0.04), compared with our and consensus estimates of \$(0.05) - (0.06). There was no Q1 guidance. Atossa is a clinical stage drug development company so it generates no revenue.

**Operating expenses:** Operating expenses were \$4.7 million, flat from \$4.8 million in Q4 2021.

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

**Adjusting estimates:** We are adjusting our 2022 EPS estimate to \$(0.20) to \$(0.22).

**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).

**COVID-19:** Atossa has two COVID-19 drugs under development: 1) AT-H201, to improve lung function of moderate to severely ill, hospitalized COVID-19 patients by inhalation; and 2) AT-301, a nasal spray for COVID-19 patients who are not sufficiently ill to require hospitalization.

**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.

**2 clinical trial in progress:** In September, Atossa began to enroll patients in its clinical study of AT-H201 in Australia. In December, Atossa began to enroll patients in its clinical study of Endoxifen in Sweden. Atossa has received authorizations from: 1) Australian regulators to initiate a clinical study of AT-H201 which is being developed for the treatment of patients with COVID-19 and "long haul" respiratory illness; and 2) Swedish regulators to initiate a Phase 2 clinical study of Endoxifen to reduce mammographic breast density (MBD).

**IND planned in Q2:** The company plans to submit an IND to the FDA in Q2 2022 to compare Endoxifen to standard of care in premenopausal women with breast cancer.

**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 all three into the next phase of clinical trials (expected in 2022) in the U.S.

**Clinical data can be catalyst:** Atossa anticipates starting/finishing its various clinical trials over the next year. We believe achieving key milestones and strong positive data 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 \$7.50 from \$8.00 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

May 29, 2022

Edward Woo, CFA  
(949) 259-4932  
ewoo@ascendant.com

## COMPANY UPDATE

Rating: BUY

Ticker: ATOS

Price: \$0.96

Target: \$7.50  
(from \$8.00)

## Stock Data

Exchange:	NasdaqCM
52-week Range:	\$0.84 – 9.80
Shares Outstanding (million):	127
Market cap (\$million):	\$122
EV (\$million):	\$(10)
Debt (\$million):	\$0
Cash (\$million):	\$132
Avg. Daily Trading Vol. (\$million):	\$3
Float (million shares):	119
Short Interest (million shares):	17
Dividend, annual (yield):	\$0 (NA%)

## Revenues (US\$ million)

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

## Earnings per Share (pro forma)

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

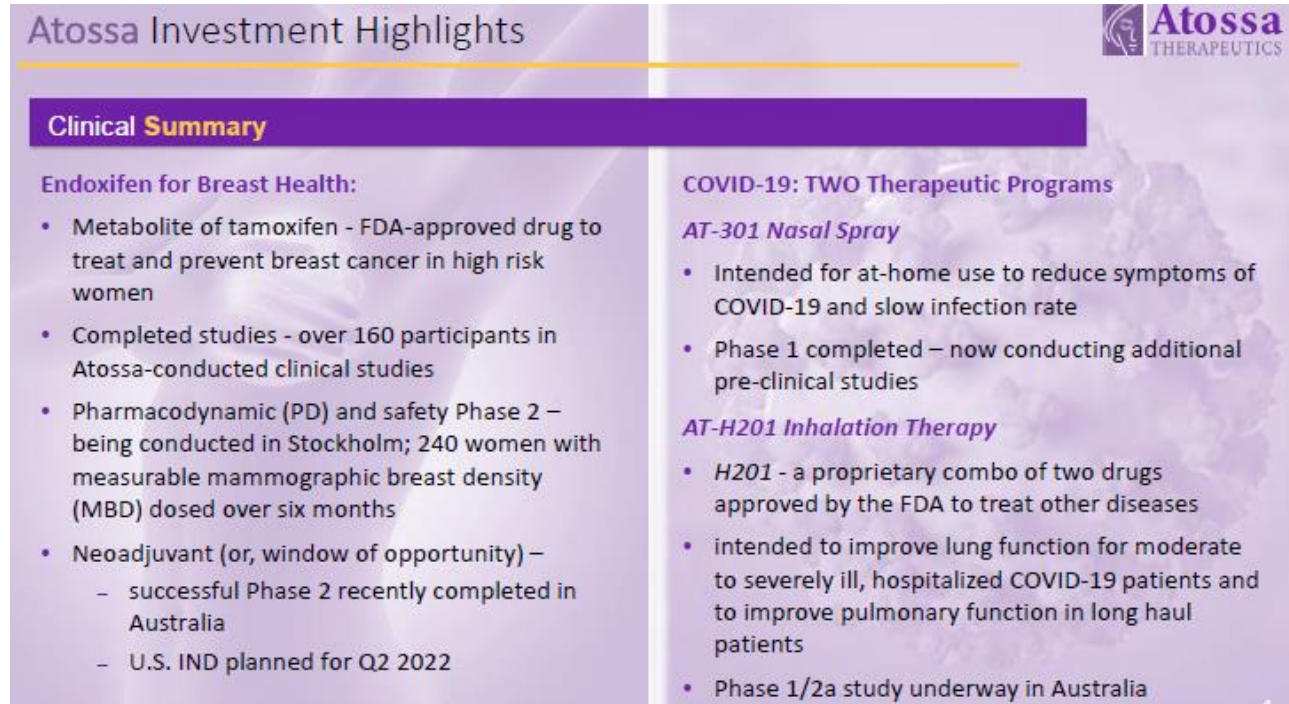
## Important Disclosures

Ascendant 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.**



The slide is titled "Atossa Investment Highlights" and features the Atossa Therapeutics logo in the top right corner. A purple header bar contains the text "Clinical Summary". The content is organized into two columns. The left column is titled "Endoxifen for Breast Health:" and lists four bullet points. The right column is titled "COVID-19: TWO Therapeutic Programs" and contains two sub-sections: "AT-301 Nasal Spray" with two bullet points, and "AT-H201 Inhalation Therapy" with three bullet points.

## 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

Source: Company reports

---

**Exhibit 2: Atossa Market Opportunities**

Large Market Opportunities

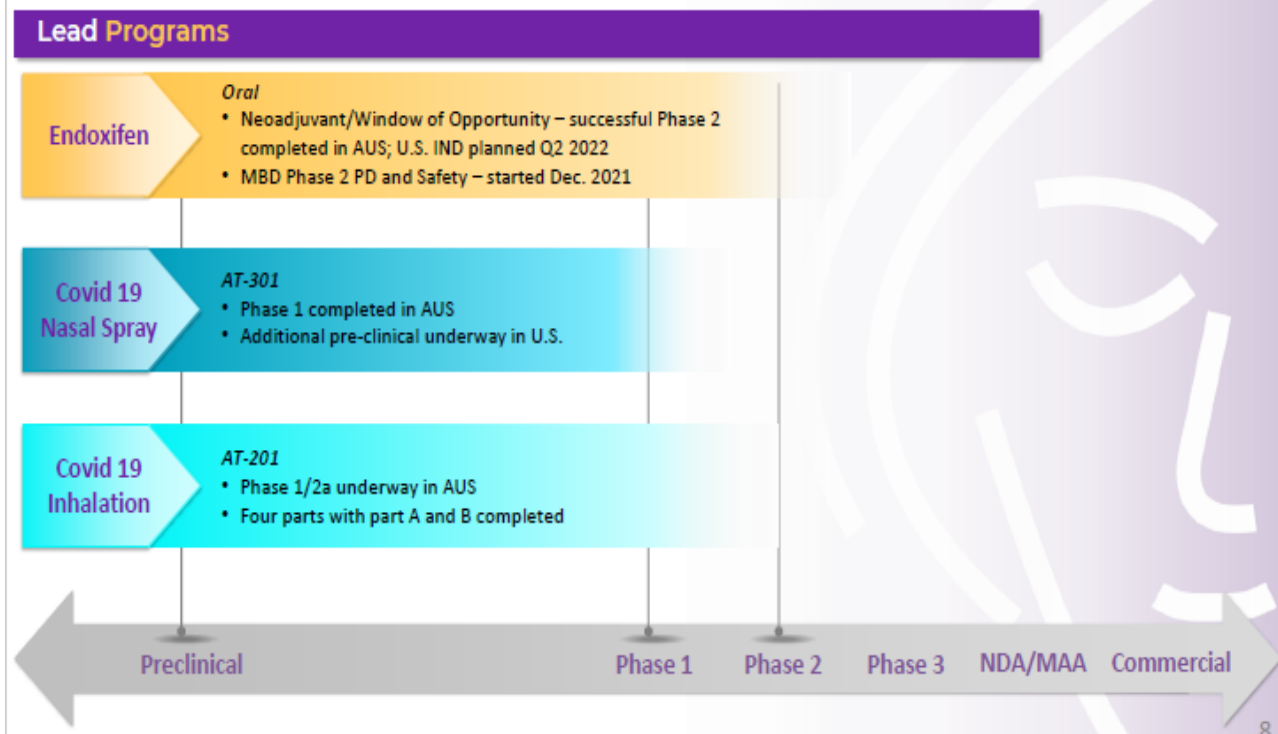


PROGRAM	OPPORTUNITY
<b>Oral Endoxifen</b> Neoadjuvant/Window Opportunity	<b>200k</b> ER+ Breast Cancers/Yr. in U.S. <sup>(3)</sup>
<b>Oral Endoxifen</b> for MBD	<b>39M/yr.</b> Mammograms/10M High MBD in U.S. (BI-RAD C/D) <sup>(2)</sup>
<b>AT-301 Nasal Spray</b> for at Home Treatment of COVID-19	<b>&gt;510M</b> COVID-19 cases world-wide <sup>(4)</sup>
<b>AT-H201 for COVID-19</b> Moderate-Severe Patients and Long-haul	<b>&gt;6M</b> Deaths world-wide from COVID-19 <sup>(4)</sup>

Source: Company reports.

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

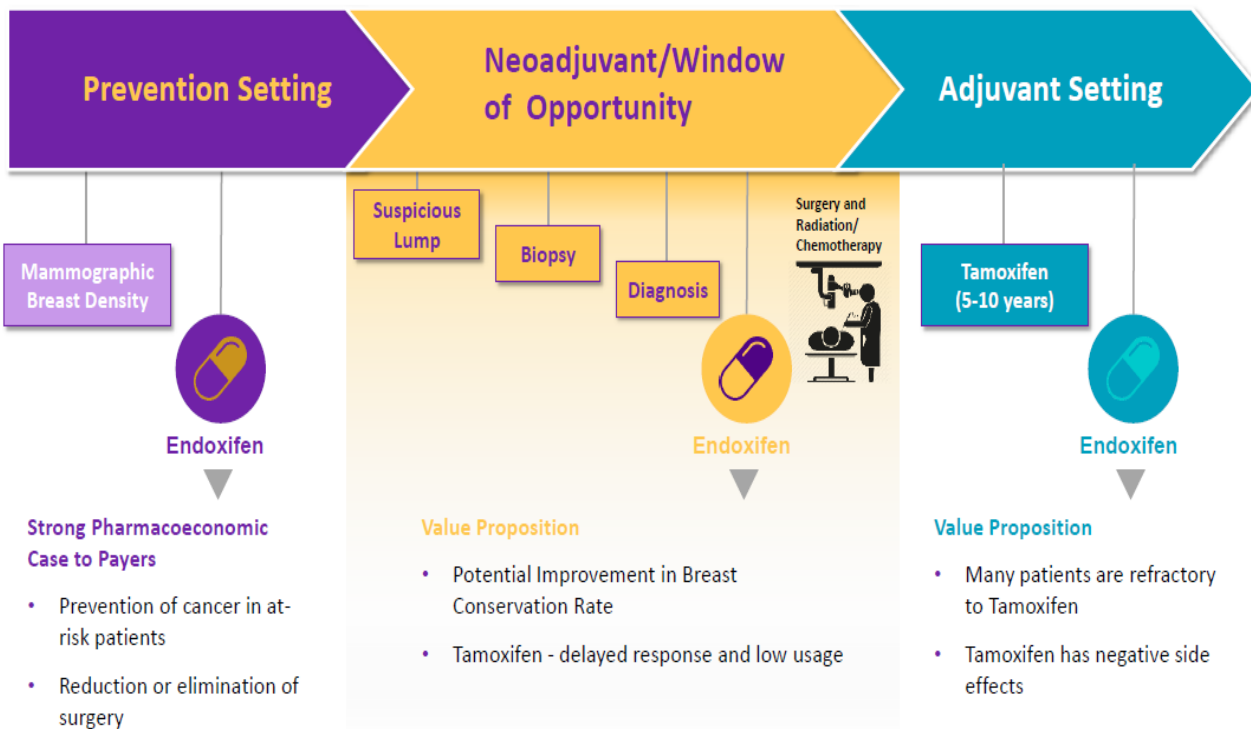
Drug Development Pipeline



Source: Company reports

Exhibit 4: ENDOXIFEN

# Clinical Positioning In Breast Cancer



# The Breast Cancer Problem



**1 in 8**  
women experience breast cancer

**281,000**  
women diagnosed in US annually

**2nd**  
leading cause of cancer death in American women

Source: Company reports

## Exhibit 5: Endoxifen Clinical Trials

### Endoxifen Phase 2 Study in Stockholm

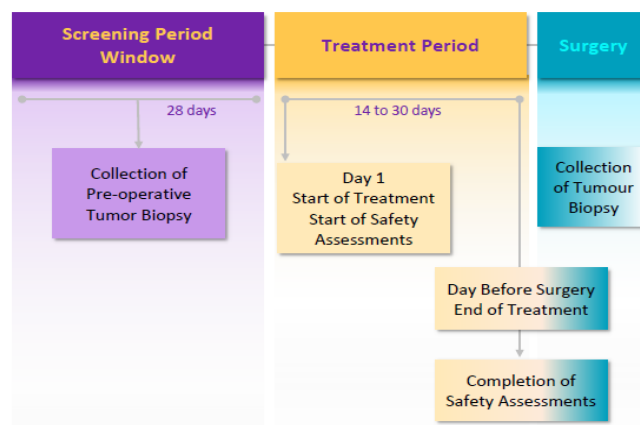
- Being conducted in Stockholm by So. Gen. Hospital
- Primary objective – PD study to determine the dose-response relationship of daily Endoxifen on MBD reduction
- Secondary endpoints - safety and tolerability
- Randomized, double-blinded and placebo-controlled
- 240 pre-menopausal women with measurable 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

Source: Company reports

---

Exhibit 6: COVID-19 Opportunities

## THERAPEUTICS FOR COVID-19



Ongoing pandemic justifies new therapeutics:

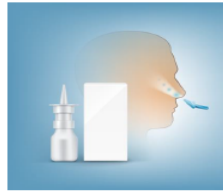
- As an alternative: many people continue to show reluctance to take traditional vaccine
- As a belt and suspenders approach: Efficacy of vaccines may diminish over time
- As a bridge to vaccine 2.0: SARS-CoV-2 is rapidly responding with deadlier and more infectious variants
- Post-COVID recovery: Up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

Source: Company reports

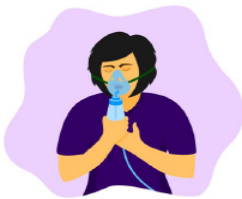
---

Exhibit 7: COVID-19 Therapeutic Needs

FOUR COVID-19 THERAPEUTIC NEEDS



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

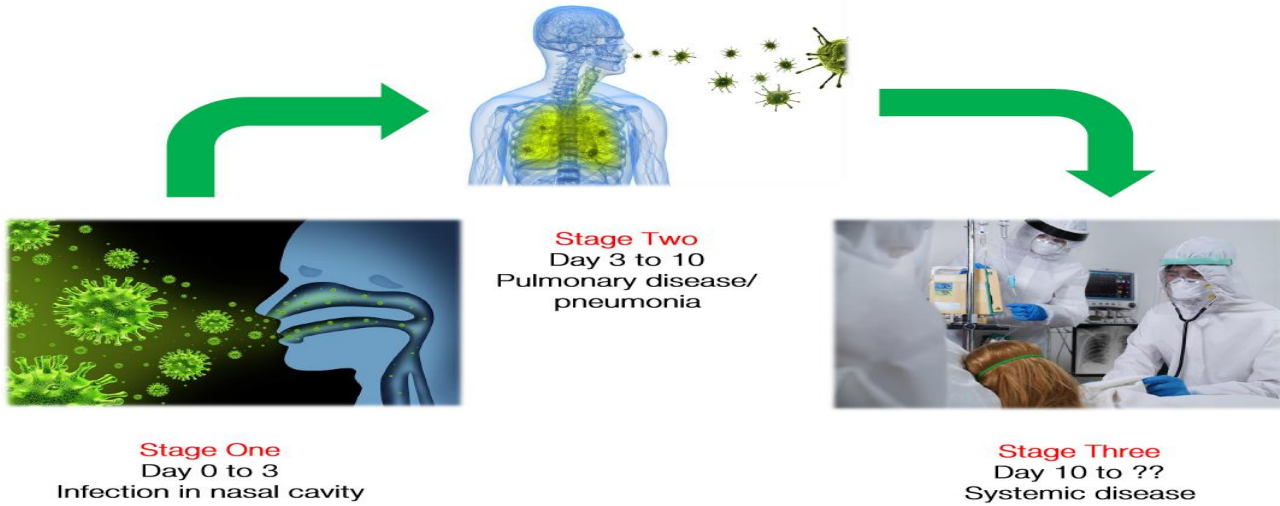


Systemic drug upon entry to hospital  
To treat pneumonia  
To prevent blood stream infection



Inhalation drug  
To prevent using ventilator  
To wean from ventilator

COVID-19 PROGRESSION



Source: Company reports.

---

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

Source: Company reports

---



---

## Exhibit 10: Q1 2022 and Recent Company Highlights

Key developments from Q1 2022 and to date include:

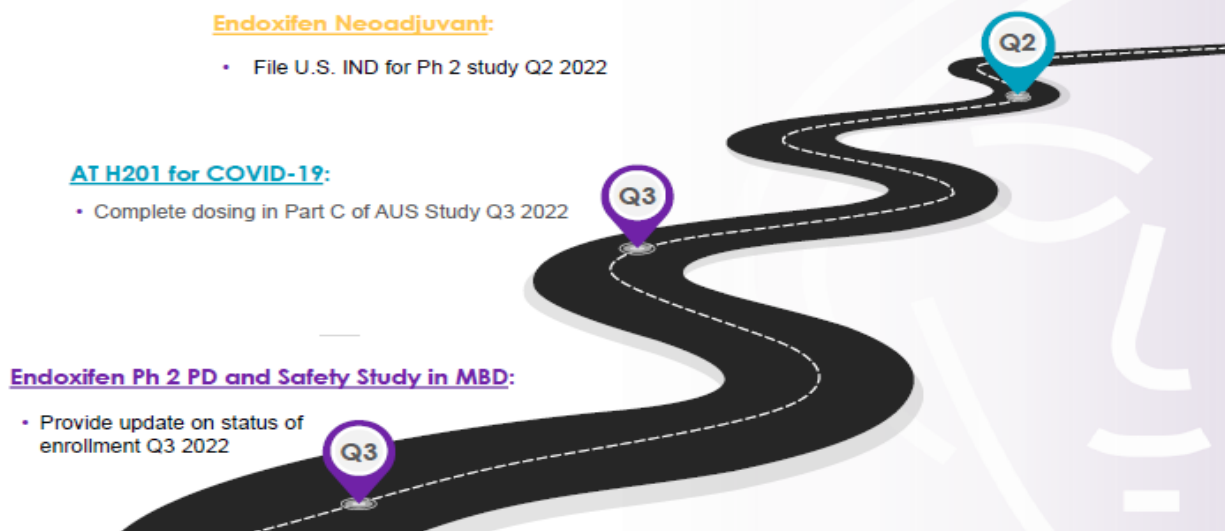
- Received issuance of key U.S. patent covering Endoxifen directed to compositions of storage-stable Endoxifen and methods of treating hormone-dependent breast disorders using the storage-stable Endoxifen.
- Announced planned U.S. Phase 2 clinical study of Endoxifen in the neoadjuvant setting (prior to surgery) to compare Endoxifen to standard of care in premenopausal women with breast cancer. 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 manage the study. The Company anticipates submitting an IND to the FDA in the second quarter of 2022.
- Completed Part B (second of four parts) of Phase 1b/2a clinical study of AT-H201 in Australia

Source: Company reports

---

## Exhibit 11: Upcoming Milestones

### Milestones



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 run-in 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-H201 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-301 and then to further characterize the API in AT-301 starting in the third quarter 2022.

Source: Company reports

**Exhibit 12: Atossa Therapeutics, Inc. Stock Price (5-years)**



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

**Exhibit 13: Consensus Expectations (as of May 9, 2022)**

	Revenue (mil)			EPS	
	2022E	2023E		2022E	2023E
Q1 Mar	\$0E		Q1 Mar	\$(0.05)E	
Q2 Jun	\$0E		Q2 Jun	\$(0.06)E	
Q3 Sep			Q3 Sep		
Q4 Dec			Q4 Dec		
<b>Total</b>	<b>\$0E</b>	<b>\$0E</b>	<b>Total</b>	<b>\$(0.20)E</b>	<b>\$(0.20)E</b>

\*Quarterly estimates may not add to annual estimates due to variations in contributing estimates and rounding.

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

## FINANCIAL MODEL

### Atossa Therapeutics, Inc.

Income 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	Q2E	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
<b>Total Revenue</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
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
Gross Profit	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	0.9	1.7	1.7	2.4	6.6	1.4	3.8	2.2	1.8	9.2	1.5	4.0	4.0	4.0	13.5	4.0	4.0	4.0	4.0	16.0
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	3.0	3.0	3.0	12.2	3.0	3.0	3.0	3.0	12.0
Restructuring and other					0.0					0.0					0.0					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	7.0	7.0	7.0	25.7	7.0	7.0	7.0	7.0	28.0
<b>Operating income (loss)</b>	<b>(2.9)</b>	<b>(3.9)</b>	<b>(3.5)</b>	<b>(4.2)</b>	<b>(14.6)</b>	<b>(3.5)</b>	<b>(7.0)</b>	<b>(5.2)</b>	<b>(4.8)</b>	<b>(20.5)</b>	<b>(4.7)</b>	<b>(7.0)</b>	<b>(7.0)</b>	<b>(7.0)</b>	<b>(25.7)</b>	<b>(7.0)</b>	<b>(7.0)</b>	<b>(7.0)</b>	<b>(7.0)</b>	<b>(28.0)</b>
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	0.0
Other income (expense)	(0.0)	0.0		(7.7)	(7.7)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)	(0.0)	0.0	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0	0.0
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)	(7.0)	(7.0)	(7.0)	(25.8)	(7.0)	(7.0)	(7.0)	(7.0)	(28.0)
Income taxes					0.0					0.0		0.0	0.0	0.0	0.0	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)	(7.0)	(7.0)	(7.0)	(25.8)	(7.0)	(7.0)	(7.0)	(7.0)	(28.0)
Nonrecurring/noncash adjustments					0.0					0.0					0.0					0.0
<b>Net income (pro forma)</b>	<b>(2.9)</b>	<b>(3.9)</b>	<b>(3.5)</b>	<b>(12.0)</b>	<b>(22.3)</b>	<b>(3.5)</b>	<b>(7.0)</b>	<b>(5.2)</b>	<b>(4.8)</b>	<b>(20.6)</b>	<b>(4.8)</b>	<b>(7.0)</b>	<b>(7.0)</b>	<b>(7.0)</b>	<b>(25.8)</b>	<b>(7.0)</b>	<b>(7.0)</b>	<b>(7.0)</b>	<b>(7.0)</b>	<b>(28.0)</b>
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	126.7	126.8	126.9	126.8	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	126.7	126.8	126.9	126.8	127.0	127.1	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)	(\$0.18)	(\$0.04)	(\$0.06)	(\$0.06)	(\$0.06)	(\$0.20)	(\$0.06)	(\$0.06)	(\$0.06)	(\$0.05)	(\$0.22)
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)	(\$0.06)	(\$0.06)	(\$0.06)	(\$0.20)	(\$0.06)	(\$0.06)	(\$0.06)	(\$0.05)	(\$0.22)
<b>Margins</b>																				
Gross margin																				
Research and development																				
General and administrative																				
Operating margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Tax rate, GAAP	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Net margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
<b>Y/Y % change</b>																				
Total Revenue																				
Gross margin																				
Research and development	-35%	-37%	-1%	163%	-1%	47%	130%	33%	-23%	39%	9%	5%	81%	119%	47%	167%	0%	0%	0%	19%
General and administrative	-24%	-51%	15%	9%	-25%	8%	40%	60%	61%	41%	51%	-6%	2%	0%	8%	-8%	0%	0%	0%	-2%
Operating income (loss)	-28%	-46%	6%	61%	-15%	20%	78%	47%	14%	40%	34%	0%	36%	45%	25%	47%	0%	0%	0%	9%
Net income (loss)	-28%	-46%	6%	358%	30%	20%	80%	49%	-60%	-8%	35%	-1%	35%	45%	25%	46%	0%	0%	0%	9%
EPS Diluted (pro forma)	-48%	-47%	-5%	150%	-3%	-88%	-86%	-88%	-95%	-91%	-1%	-5%	34%	45%	15%	46%	0%	0%	0%	8%

Source: Company reports and Ascendant Capital Markets estimates.

**Atossa Therapeutics, Inc.**

Balance Sheet (\$ mils)	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
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1A	Q2E	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
<b>Assets</b>																
Cash and cash equivalents	9.4	7.5	9.1	39.6	137.6	142.4	140.0	136.4	131.5	126.4	121.2	116.0	110.8	105.6	100.4	95.1
Short term investments									0.0	0.0	0.0	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	0.1
Research and development tax rebate	0.7	0.8	0.4	0.6	0.7	0.8	0.9	1.1	0.0	0.0	0.0	0.0	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
Prepaid expenses and other	1.5	1.7	1.7	2.5	2.6	2.5	1.9	3.7	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Total current assets	11.7	10.1	11.3	42.8	141.0	145.8	143.0	141.2	136.8	131.8	126.6	121.4	116.1	110.9	105.7	100.5
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	0.1	0.1	0.1
Intangibles, net	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deferred income tax									0.0	0.0	0.0	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	0.6
<b>Total assets</b>	<b>11.8</b>	<b>10.2</b>	<b>11.4</b>	<b>42.8</b>	<b>141.1</b>	<b>145.9</b>	<b>143.0</b>	<b>141.3</b>	<b>137.5</b>	<b>132.4</b>	<b>127.2</b>	<b>122.0</b>	<b>116.8</b>	<b>111.6</b>	<b>106.4</b>	<b>101.2</b>
<b>Liabilities and stockholders' equity</b>																
Accounts payable	0.4	1.0	0.7	1.6	0.7	0.5	0.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Accrued expenses	0.5	0.7	0.8	0.1	0.6	1.2	1.0	1.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Deferred income tax									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Warrant liabilities				13.0					0.0	0.0	0.0	0.0	0.0	0.0	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	0.0
Short term debt									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total current liabilities</b>	<b>0.9</b>	<b>1.8</b>	<b>1.6</b>	<b>15.7</b>	<b>1.4</b>	<b>1.8</b>	<b>1.7</b>	<b>3.1</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>
Deferred income taxes									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Warrant liabilities									0.0	0.0	0.0	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	0.0	0.0	0.0
Long term debt									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total other liabilities</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
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	0.6
Common stock	1.6	1.7	1.9	8.6	21.7	22.7	22.8	22.8	22.8	24.6	26.4	28.2	30.0	31.8	33.6	35.4
Additional paid-in capital	106.3	107.6	112.4	130.5	230.1	240.6	243.0	244.0	245.8	245.8	245.8	245.8	245.8	245.8	245.8	245.8
Retained earnings	(97.0)	(100.9)	(104.4)	(111.9)	(112.2)	(119.2)	(124.4)	(129.2)	(134.0)	(141.0)	(148.0)	(155.0)	(162.0)	(169.0)	(176.0)	(183.0)
Accumulated other comprehensive income									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total stockholders' equity</b>	<b>10.9</b>	<b>8.4</b>	<b>9.9</b>	<b>27.2</b>	<b>139.7</b>	<b>144.1</b>	<b>141.3</b>	<b>138.1</b>	<b>135.2</b>	<b>130.0</b>	<b>124.8</b>	<b>119.6</b>	<b>114.4</b>	<b>109.2</b>	<b>104.0</b>	<b>98.8</b>
<b>Total stockholders' equity and liabilities</b>	<b>11.8</b>	<b>10.2</b>	<b>11.4</b>	<b>42.8</b>	<b>141.1</b>	<b>145.9</b>	<b>143.0</b>	<b>141.3</b>	<b>137.5</b>	<b>132.3</b>	<b>127.1</b>	<b>121.9</b>	<b>116.7</b>	<b>111.5</b>	<b>106.3</b>	<b>101.1</b>

**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
Book & Cash Value (per share)	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1A	Q2E	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
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	\$0.98	\$0.94	\$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	\$1.00	\$0.96	\$0.91	\$0.87	\$0.83	\$0.79	\$0.75
Net cash per Share (diluted)	\$1.02	\$0.81	\$0.90	\$2.37	\$1.49	\$1.17	\$1.11	\$1.08	\$1.04	\$1.00	\$0.96	\$0.91	\$0.87	\$0.83	\$0.79	\$0.75

Source: Company reports and Ascendant Capital Markets estimates

**Atossa Therapeutics, Inc.**

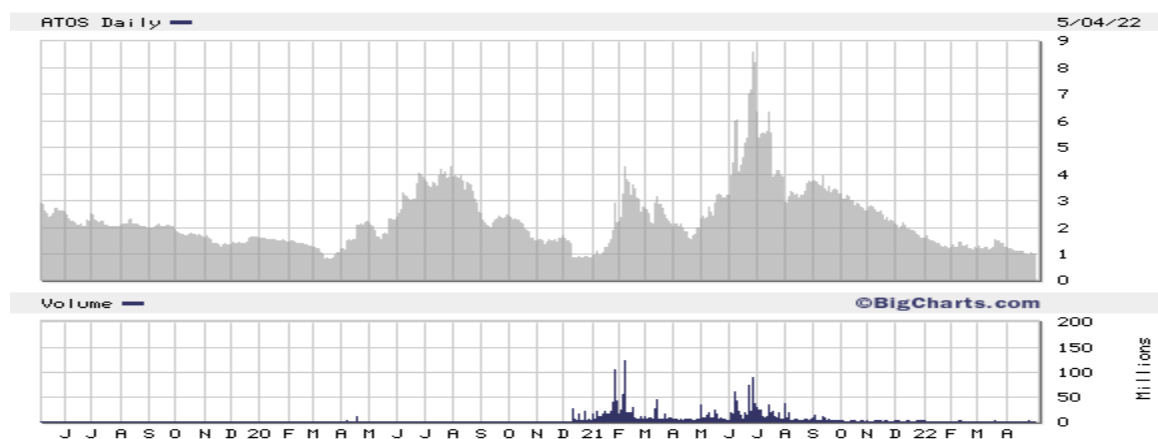
Cash Flow Statement (\$ mils)	Mar-20	Jun-20	Sep-20	Dec-20	2020	Mar-21	Jun-21	Sep-21	Dec-21	2021	Mar-22	Jun-22	Sep-22	Dec-22	2022	Mar-23	Jun-23	Sep-23	Dec-23	2023	
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2E	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E	
<b>Cash flow from operating activities</b>																					
Net income	(2.9)	(3.9)	(3.5)	(7.5)	(17.8)	(3.5)	(7.0)	(5.2)	(4.8)	(20.6)	(4.8)	(7.0)	(7.0)	(7.0)	(25.8)	(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 expense					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	7.2	1.8	1.8	1.8	1.8	7.2	
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	
Change in fair value of warrant liability				3.3	3.3					0.0			0.0	0.0	0.0	0.0	0.0	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	
Changes in operating assets and liabilities:																					
Prepaid expenses & other curre	(0.5)	(0.1)	(0.0)	(0.3)	(1.0)	(0.7)	0.2	0.5	(0.6)	(0.7)	(1.4)	0.0	0.0	0.0	(1.4)	0.0	0.0	0.0	0.0	0.0	
Research and development tax	0.0	(0.0)	0.3	(0.2)	0.1	(0.1)	(0.1)	(0.1)	(0.1)	(0.4)	0.4				0.4					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)	0.0	0.0	0.0	(0.1)	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)	0.0	0.0	0.0	(0.1)	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)	0.0	0.0	0.0	(0.1)	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)	0.0	0.0	0.0	(0.6)	0.0	0.0	0.0	0.0	0.0	
<b>Net cash (used in) provided by</b>	<b>(3.2)</b>	<b>(2.2)</b>	<b>(2.7)</b>	<b>(3.4)</b>	<b>(11.6)</b>	<b>(4.4)</b>	<b>(5.3)</b>	<b>(3.1)</b>	<b>(3.7)</b>	<b>(16.5)</b>	<b>(4.9)</b>	<b>(5.2)</b>	<b>(5.2)</b>	<b>(5.2)</b>	<b>(20.5)</b>	<b>(5.2)</b>	<b>(5.2)</b>	<b>(5.2)</b>	<b>(5.2)</b>	<b>(20.8)</b>	
<b>Cash flow from investing activities</b>																					
Purchases of property and equipment	(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)	
Purchases of short-term investments					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	
<b>Net cash used in investing acti</b>	<b>0.0</b>	<b>(0.0)</b>	<b>(0.0)</b>	<b>0.0</b>	<b>(0.0)</b>	<b>0.0</b>	<b>0.0</b>	<b>(0.0)</b>	<b>0.0</b>	<b>(0.0)</b>	<b>(0.0)</b>	<b>(0.0)</b>	<b>(0.0)</b>	<b>(0.0)</b>	<b>(0.0)</b>	<b>(0.0)</b>	<b>(0.0)</b>	<b>(0.0)</b>	<b>(0.0)</b>	<b>(0.1)</b>	
<b>Cash flow from financing activities</b>																					
Issuance of debt					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)	
Proceeds from stock option exercises		(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	
<b>Cash provided by (used in) fina</b>	<b>0.0</b>	<b>0.3</b>	<b>4.3</b>	<b>33.9</b>	<b>38.6</b>	<b>102.4</b>	<b>10.2</b>	<b>0.7</b>	<b>0.0</b>	<b>113.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>(0.0)</b>	<b>(0.0)</b>	
Effect of exchange rate on cash					0.0					0.0					0.0					0.0	
<b>Net increase (decrease) in cash</b>	<b>(3.2)</b>	<b>(1.9)</b>	<b>1.6</b>	<b>30.4</b>	<b>27.0</b>	<b>98.0</b>	<b>4.9</b>	<b>(2.4)</b>	<b>(3.7)</b>	<b>96.8</b>	<b>(4.9)</b>	<b>(5.2)</b>	<b>(5.2)</b>	<b>(5.2)</b>	<b>(20.5)</b>	<b>(5.2)</b>	<b>(5.2)</b>	<b>(5.2)</b>	<b>(5.2)</b>	<b>(20.9)</b>	
<b>Beginning cash and equivalents</b>	<b>12.7</b>	<b>9.5</b>	<b>7.6</b>	<b>9.2</b>	<b>12.7</b>	<b>39.7</b>	<b>137.7</b>	<b>142.5</b>	<b>140.2</b>	<b>39.7</b>	<b>136.5</b>	<b>131.6</b>	<b>126.4</b>	<b>121.2</b>	<b>136.5</b>	<b>116.0</b>	<b>110.8</b>	<b>105.6</b>	<b>100.4</b>	<b>116.0</b>	
<b>Ending cash and equivalents</b>	<b>9.5</b>	<b>7.6</b>	<b>9.2</b>	<b>39.7</b>	<b>39.7</b>	<b>137.7</b>	<b>142.5</b>	<b>140.2</b>	<b>136.5</b>	<b>136.5</b>	<b>131.6</b>	<b>126.4</b>	<b>121.2</b>	<b>116.0</b>	<b>116.0</b>	<b>110.8</b>	<b>105.6</b>	<b>100.4</b>	<b>95.1</b>	<b>95.1</b>	

Source: Company reports and Ascendant Capital Markets estimates

## ANALYST CERTIFICATION

Each analyst hereby certifies that the views expressed in this report reflect the analyst's personal views about the subject securities or issuers. Each analyst also certifies that no part of the analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report. The analyst who prepared this report is compensated based upon the overall profitability of Ascendant Capital Markets, LLC, which may, from time to time, include the provision of investment banking, financial advisory and consulting services. Compensation for research is based on effectiveness in generating new ideas for clients, performance of recommendations, accuracy of earnings estimates, and service to clients.

## 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

- Ascendant Capital Markets, LLC has received compensation for advisory or investment banking services from the company in the past 12 months.

## IMPORTANT DISCLOSURES

This report has been distributed by Ascendant Capital Markets, LLC and is for the sole use of our clients. This report is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. This report contains information from various sources, including United States government publications, The Wall Street Journal and other periodicals, Yahoo! Finance and other sources, and is for informational purposes only and is not a recommendation to trade in the securities of the companies mentioned within the report. We seek to update our research and recommendations as appropriate, but the large majority of reports are published at irregular intervals as we consider appropriate and, in some cases, as constrained by industry regulations.

We may have a business relationship with companies covered in this report. Ascendant Capital Markets, LLC may make a market in the securities of the subject company. We and our affiliates, officers, directors, and employees will from time to time have long or

short positions in, act as principal in, and buy or sell, the securities or derivatives (including options and warrants) thereof of covered companies referred to in this report. This report is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any information in this report is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of the investments referred to in this report may fluctuate.

Following are some general risks that can adversely impact future operational and financial performance and share price valuation: (1) industry fundamentals with respect to legislation, mandates, incentives, customer demand, or product pricing; (2) issues relating to competing companies or products; (3) unforeseen developments with respect to management, financial condition or accounting policies or practices; or (4) external factors that affect the interest rates, currency, the economy or major segments of the economy. Past performance is not a guide to future performance, future returns are not guaranteed, and loss of original capital may occur. Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Our report is disseminated primarily electronically, and, in some cases, in printed form. The information contained in this report is not incorporated into the contents of our website and should be read independently thereof. Copyright Ascendant Capital Markets, LLC. No part of this material may be copied, photocopied or duplicated by any means or redistributed without the prior written consent of Ascendant Capital Markets, LLC.

### Risks & Considerations

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.

### Ascendant 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.

### Ascendant 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.



### Ascendant Capital Markets, LLC Distribution of Investment Ratings (as of April 17, 2022)

Rating	Count	Percent	Investment Banking Services Past 12 months	
			Count	Percent
Buy	41	98%	13	32%
Hold	0	0%	0	0%
Sell	1	2%	0	0%
Total	42	100%	13	31%

### 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.

### Dissemination of Research

Ascendant Capital Markets, LLC research is distributed electronically via the Thomson Reuters platforms, Bloomberg, Capital IQ and FactSet. Please contact your investment advisor or institutional salesperson for more information.

### General Disclaimer

The information and opinions in this report were prepared by Ascendant Capital Markets, LLC. This information is not intended to be used as the primary basis of investment decisions and because of individual client objectives it should not be construed as advice designed to meet the particular investment needs of any investor. This material is for information purposes only and is not an offer or solicitation with respect to the purchase or sale of any security. The reader should assume that Ascendant Capital Markets, LLC may have a conflict of interest and should not rely solely on this report in evaluating whether or not to buy or sell securities of issuers discussed herein. The opinions, estimates, and projections contained in this report are those of Ascendant Capital Markets, LLC as of the date of this report and are subject to change without notice. Ascendant Capital Markets, LLC endeavors to ensure that the contents have been compiled or derived from sources that we believe are reliable and contain information and opinions that are accurate and complete. However, Ascendant Capital Markets, LLC makes no representation or warranty, express or implied, in respect thereof, takes no responsibility for any errors and omissions contained herein, and accepts no liability whatsoever for any loss arising from any use of, or reliance on, this report or its contents. Information may be available to Ascendant Capital Markets, LLC, or its affiliates that is not reflected in this report. This report is not to be construed as an offer or solicitation to buy or sell any security.

### Additional Disclosures

Ascendant Capital Markets, LLC is a broker-dealer registered with the United States Securities and Exchange Commission (SEC) and a member of the FINRA and SIPC. Ascendant Capital Markets, LLC is not a Registered Investment Advisor nor is it an investment advisor registered with the Securities and Exchange Commission or with the securities regulators of any state, and at the present time is not eligible to file for federal registration.