

Atossa Genetics

Atossa raises \$13.4m in rights offering

Atossa's previously announced rights offering closed on 30 May 2018, generating \$13.3m in gross proceeds (\$12.1m net) through the issue of 13,324 shares of Series B convertible preferred stock (SBCPS) and 3,784,016 warrants exercisable at \$4.05 per share. We believe the funds raised could sustain operations into early 2020. Each SBCPS is immediately convertible into 284 common shares. Assuming the full conversion of all SBCPS into common shares, the number of Atossa's fully diluted (FD) common shares outstanding has increased by 143% to 6.44m. While our rNPV (\$24.4m) is largely unchanged, our per-share equity valuation has reduced to \$5.87 per share (from \$11.30 previously) due to the dilutive impact of the equity raise.

	Revenue	PBT*	EPS*	DPS	P/E	Yield
Year end	(\$m)	(\$m)	(\$)	(\$)	(x)	(%)
12/16	0.0	(7.2)	(29.52)	0.0	N/A	N/A
12/17	0.0	(7.2)	(10.01)	0.0	N/A	N/A
12/18e	0.0	(11.4)	(4.29)	0.0	N/A	N/A
12/19e	0.0	(7.0)	(2.57)	0.0	N/A	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

Q118 financials largely unremarkable

Atossa reported Q118 results on 14 May 2018, with a net loss of \$1.9m and an operating cash burn rate of \$2.4m for the quarter. Q118 R&D costs were \$0.47m, and we continue to expect the R&D cost rate to increase in future quarters as the company commences larger Phase II studies on topical and oral endoxifen. We continue to expect FY18 R&D expenses of \$7.0m (as R&D spending rates should rise once the Phase II studies commence enrolment). We now assume an operating cash burn rate (excluding net interest income) of \$12.1m in 2018 and \$6.8m in 2019, versus our prior estimates of \$11.5m and \$7.0m respectively. We expect Atossa's total current funds on hand to last into early 2020, and we assume it will raise \$10m in 2019 to fund future operations. As per our usual policy, for modelling purposes, we assign these financings to long-term debt.

Valuation: Equity valuation of \$37.8m

After making minor adjustments to our G&A cost estimates, we now obtain an rNPV valuation of \$24.4m, broadly unchanged from our prior \$24.7m estimate. Atossa had \$4.8m net cash at 31 March 2018 and we estimate Q218 net cash at \$13.4m. After including Q218 estimated net cash, we obtain an equity valuation of \$37.8m, or \$5.87 per fully diluted (FD) share (which assumes full conversion of the recently issued SBCPS into common shares). The dilutive impact of the recent equity raise (with full conversion of the SBCPS into common shares reflecting a lower value per common share than our previous valuation) explains the reduction compared to our previous \$11.30 per-share equity valuation.

Financing update

Pharma & biotech

14 June 2018

Price	US\$2.60
Market cap	US\$17m

Estimated pro-forma net cash (\$m) at 16.9

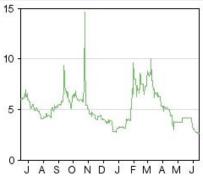
Shares in issue (FD) at 6.44m Q218e

Free float 99%
Code ATOS

Primary exchange NASDAQ

Secondary exchange N/A

Share price performance



%	1m	3m	12m
Abs	(36.7)	(62.6)	(57.1)
Rel (local)	(37.8)	(62.8)	(62.3)
52-week high/low	US\$14.6		US\$2.6

Business description

Based in Seattle, WA, Atossa Genetics is a clinicalstage pharmaceutical firm developing therapeutics and delivery methods to treat breast cancer and other breast conditions. Intraductal microcatheterdelivered fulvestrant and endoxifen are both in clinical stages of development.

Next events

Start Phase II study of oral endoxifen Mid-2018
Start Phase II study of topical endoxifen Mid-2018

Analysts

Pooya Hemami, CFA +1 646 653 7026 Maxim Jacobs. CFA +1 646 653 7027

healthcare@edisongroup.com

Edison profile page

Atossa Genetics is a research client of Edison Investment Research Limited



Fund-raising could sustain operations into early 2020

The subscription period for Atossa's previously announced rights offering expired on 24 May 2018, and on 30 May 2018 the offering was closed, generating \$13.3m in gross proceeds through the issue of 13,324 units, consisting of 13,324 shares of Series B convertible preferred stock (SBCPS) and 3,784,016 warrants. Net proceeds after all expenses were \$12.1m. We believe the funds raised could sustain operations into early 2020, although our model assumes the firm will still raise \$10m in 2019. Each warrant is exercisable for up to four years, for the purchase of one common share at an exercise price of \$4.05 per share. Each SBCPS has a face value of \$1,000 and is immediately convertible into 284 common shares at a conversion price of \$3.52 per share. Assuming the full conversion of all SBCPS into common shares, the number of Atossa's fully diluted (FD) common shares outstanding has increased by 143% to 6.44m.

Review of financials

Atossa reported Q118 results on 14 May 2018, with a net loss of \$1.9m and an operating cash burn rate of \$2.4m for the quarter. Q118 R&D costs were \$0.47m, and we continue to expect the R&D cost rate to increase in future quarters as the company proceeds with larger Phase II studies on topical and oral endoxifen (recruitment sizes still unknown), as well as the recently started 24-patient Phase I study on topical endoxifen in men. Atossa announced on 15 May 2018 that it had received a second positive interim safety review on this trial, which concluded that the study may advance to the third and final dosing level of the trial. The company expects to announce results assessing the safety and pharmacokinetics of 28 days of treatment, in Q318.

Atossa continues to anticipate starting Phase II studies in mid-2018 for both topical and oral endoxifen in women, for high mammographic breast density (MBD) and breast cancer recurrence prevention indications, respectively. We continue to expect FY18 R&D expenses of \$7.0m (as R&D spending rates should rise once the Phase II studies commence enrolment) and we have increased our 2018 G&A forecast to \$4.4m (from \$4.2m, previously).

We now assume an operating cash burn rate (excluding net interest income) of \$12.1m in 2018 and \$6.8m in 2019, versus our prior estimates of \$11.5m and \$7.0m respectively. We believe the burn rate will decrease in 2019, as we expect the company to have partnered the endoxifen programs (oral and topical) in H119, which would reduce its R&D expense needs.

Atossa had \$4.8m net cash at 31 March 2018. Given the recent (Q218) completion of the rights offering (with \$12.1m in net proceeds), we expect Atossa's total current funds on hand (excluding any possible exercise from the outstanding warrants) to last into early 2020. Our model previously assumed that Atossa would raise \$10m (through debt financing) in 2018 but, given the Q218 financing, we have removed this assumption from our model. We continue to assume that Atossa will raise \$10m in 2019 to fund its operations, and as per our usual policy, for modeling purposes, we assign these financings to long-term debt.

Valuation: rNPV largely unchanged at \$24.4m

Our rNPV valuation continues to include the prospects of the company's topical and oral endoxifen programs for women, and its intraductal microcather (IDMC) delivered fulvestrant program. Given the early stage of its men's topical endoxifen program, with no human proof-of-concept data thus far in gynecomastia and with certain studies suggesting that oral tamoxifen use in men does not



result in substantial treatment discontinuations when used (albeit off-label) for gynecomastia, we prefer to wait for further advancement in this program before including it in our valuation.

Our revenue assumptions for topical and oral endoxifen, as well as IDMC-fulvestrant, are unchanged. We assume that Atossa will out-license the oral and topical endoxifen programs in H119, on the conclusion of the currently planned Phase II studies, and will be entitled to 20% royalties on net sales. Following a subsequent pivotal study (to be funded by the partner), topical endoxifen could be launched in 2021.

For oral endoxifen, we continue to assume a potential launch in 2020, and that the target market will be 20% of the 300,000 US women (and approximately one million women worldwide) currently taking tamoxifen and who we estimate do not achieve sufficient plasma endoxifen concentrations. For IDMC-fulvestrant we continue to assume a potential launch in 2023.

We continue to assume that Atossa will spend \$3.6m on R&D on the topical female endoxifen program (primarily for the planned Phase II study) between Q218 and Q219. We assume it will spend \$2.9m on R&D for oral endoxifen over the same period before partnering it, and that it will spend \$2.8m in R&D costs on the IDMC-fulvestrant program between Q218 and H219 before also partnering this program.

We continue to apply a 20% probability of success estimate for the oral endoxifen program, a 5% probability for topical endoxifen in MBD (since proof-of-concept in terms of MBD reduction has not been shown and our forecasts depend on building significant support and recognition among patients, physicians and stakeholders of the benefits of treating MBD as a preventative approach to lowering cancer risk), and a 10% probability for the IDMC-fulvestrant program.

Product contributions (net	Indication	rNPV (\$m)	rNPV/share	Probability of	Launch	Peak US market share	Peak WW sales
of R&D costs)		` ′	(\$)	success	year		(US\$m)
Topical endoxifen	High breast density	22.0	3.43	5.0%	2020	15%	922 in 2026
Oral endoxifen	Breast cancer	23.3	3.61	20.0%	2021	12.5% of patients taking tamoxifen	161 in 2025
Intraductal microcatheter (for fulvestrant)	Breast cancer	8.0	1.24	10.0%	H222	25%	182 in 2026
SG&A expenses		(21.9)	(3.41)				
Net capex, NWC & taxes		(7.0)	(1.09)				
Total rNPV		24.4	3.79				
Net cash (debt) (Q218e)		13.4	2.08				
Total equity value		37.8	5.87				
FD shares outstanding (000)*		6,436					

Source: Edison Investment Research. Note: *Includes adjustment for dilutive effect of Series B convertible preferred shares by assuming their full conversion into 3.78m common shares.

We continue to apply a 12.5% discount rate. After making minor adjustments to our G&A cost estimates, we now obtain an rNPV valuation of \$24.4m, slightly changed from our prior \$24.7m estimate. After including Q218 estimated net cash of \$13.4m, we obtain an equity valuation of \$37.8m, or \$5.87 per fully diluted (FD) share (which assumes full conversion the recently issued SBCPS into common shares). The dilutive impact of the recent equity raise (with full conversion of the SBCPS into common shares reflecting a lower value per common share than our previous valuation) explains the reduction compared to our previous \$11.30 per-share equity valuation.



	US\$(000) 2015	2016	2017	2018e	2019e	2020
31-December	IFRS	IFRS	IFRS	IFRS	IFRS	IFR
PROFIT & LOSS						
Revenue	2	0	0	0	0	5,59
Cost of Sales	(132)	0	0	0	0	(1
General & Administrative	(9,996)	(6,176)	(4,730)	(4,446)	(3,000)	(3,060
Research & Development	(2,360)	(770)	(2,328)	(7,000)	(4,000)	(1,00
EBITDA	(9,484)	(6,946)	(7,058)	(11,446)	(7,000)	1,53
Depreciation	(273)	(303)	(129)	(50)	(66)	(8)
Amortization	0	0	0	0	0	
Operating Profit (before exceptionals)	(9,756)	(7,250)	(7,187)	(11,495)	(7,066)	1,4
Exceptionals	0	881	(935)	0	0	
Other	(3,002)	0	0	0	0	
Operating Profit	(12,758)	(6,369)	(8,123)	(11,495)	(7,066)	1,4
Net Interest	Ó	0	Ó	107	62	(
Profit Before Tax (norm)	(9,756)	(7,250)	(7,187)	(11,388)	(7,004)	1,44
Profit Before Tax (FRS 3)	(12,758)	(6,369)	(8,123)	(11,388)	(7,004)	1,4
Tax	Ó	Ó	Ó	Ó	Ó	,
Profit After Tax and minority interests (norm)	(9,756)	(7,250)	(9,756)	(11,388)	(7,004)	1,4
Profit After Tax and minority interests (FRS 3)	(12,758)	(6,369)	(10,691)	(11,388)	(7,004)	1,44
Average Number of Shares Outstanding (m)	0.2	0.2	1.0	2.7	2.7	
Share options and other dilutive equity	0.2	0.2	0.0	3.8	3.8	3
outstanding (m)	0.0	0.0	0.0	3.0	3.0	J
EPS - normalised (\$)	(61.78)	(29.52)	(10.01)	(4.29)	(2.57)	0.
EPS - normalised (\$) EPS - normalised and fully diluted (\$)			(10.01)	(4.29)	(2.57)	0.
EPS - normalised and fully diluted (\$) EPS - (IFRS) (\$)	(61.78) (80.78)	(29.52) (25.93)	(10.01)	(4.29)	(2.57)	
Dividend per share (\$)	0.0	(25.93)	0.0	0.0	0.0	0.9
1 ('')	0.0	0.0	0.0	0.0	0.0	0
BALANCE SHEET						
Fixed Assets	1,948	890	266	273	340	4
Intangible Assets	1,701	640	76	71	71	
Tangible Assets	248	249	190	203	270	3
Current Assets	4,295	3,255	7,898	8,125	11,273	12,8
Short-term investments	275	55	55	55	55	
Cash	3,716	3,028	7,217	7,169	10,317	10,0
Other	304	172	626	901	901	2,7
Current Liabilities	(2,502)	(1,047)	(1,225)	(552)	(552)	(55
Creditors	(2,502)	(1,047)	(1,225)	(552)	(552)	(55
Short term borrowings	0	0	0	0	0	
Long Term Liabilities	0	0	0	0	(10,000)	(10,00
Long term borrowings	0	0	0	0	(10,000)	(10,00
Other long term liabilities	0	0	0	0	0	·
Net Assets	3,742	3,097	6,939	7,846	1,061	2,7
CASH FLOW						
Operating Cash Flow	(13,953)	(5,375)	(6,594)	(12,134)	(6,781)	(10
Net Interest	(13,333)	(3,373)	(0,534)	107	62	(10
Tax	0	0	0	0	0	
						(1.0
Capex Acquisitions/disposals	(131) (158)	(9)	0	(121)	(133)	(14
<u> </u>	9,457		10,783	12,100	0	
Financing Net Cash Flow		4,696			-	/0/
	(4,785)	(688)	4,190	(49)	(6,852)	(26
Opening net debt/(cash)	(8,501)	(3,991)	(3,083)	(7,272)	(7,224)	(37
HP finance leases initiated	0	(220)	0	0	0	
Other	275	(220)	0 (7.070)	(7.004)	0	
Closing net debt/(cash)	(3,991)	(3,083)	(7,272)	(7,224)	(372)	(11



Edison is an investment research and advisory company, with offices in North America, Europe, the Middle East and AsiaPac. The heart of Edison is our world-renowned equity research platform and deep multi-sector Easion in Nestment Research and advisory of company, with onlines in North America, Europe, the wholide scalar land salar and Nasioral Development and advisory of Company, with onlines in North America, Europe, the wholide Search (Search Company) and the Company of Company o is a branch entity of Edison Investment Research Limited [4794244]. www.ediso

Copyright 2018 Edison Investment Research Limited. All rights reserved. This report has been commissioned by Atossa Genetics and prepared and issued by Edison for publication globally. All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report. Opinions contained in this report represent those of the research department of Edison at the time of publication. The securities described in the Investment Research may not be eligible for sale in all jurisdictions or to certain categories of investors. This research is issued in Australia by Edison Investment Research Pty Ltd (Corporate Authorised Representative (1252501) of Myonlineadvisers Pty Ltd (AFSL: 427484)) and any access to it, is intended only for "wholesale clients" within the meaning of the Corporations Act 2001 of Australia. The Investment Research is distributed in the United States by Edison US to major US institutional investors only. Edison US is registered as an investment adviser with the Securities and Exchange Commission. Edison US relies upon the "publishers' exclusion" from the definition of investment adviser under Section 202(a)(11) of the Investment Advisers Act of 1940 and corresponding state securities laws. As such, Edison does not offer or provide personalised advice. We publish information about companies in which we believe our readers may be interested and this refresh and consequently active several test and several test and this information reflects our sincere opinions. The information that we provide or that is derived from our website is not intended to be, and should not be construed in any manner whatsoever as, personalised advice. Also, our website and the information provided by us should not be construed by any subscriber or prospective subscriber as Edison's solicitation to effect, or attempt to effect, any transaction in a security. The research in this document is intended for New Zealand resident professional financial advisers or brokers (for use in their roles as financial advisers or brokers) and habitual investors who are "wholesale clients" for the purpose of the Financial Advisers Act 2008 (FAA) (as described in sections 5(c) (1)(a), (b) and (c) of the FAA). This is not a solicitation or inducement to buy, sell, subscribe, or underwrite any securities mentioned or in the topic of this document. This document is provided for information purposes only and should not be construed as an offer or solicitation for investment in any securities mentioned or in the topic of this document. A marketing communication under FCA Rules, this document has not been prepared in accordance with the legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of investment research. Edison has a restrictive policy relating to personal dealing. Edison Group does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees and contractors of Edison may have a position in any or related securities mentioned in this report. affiliates may perform services or solicit business from any of the companies mentioned in this report. The value of securities mentioned in this report can fall as well as rise and are subject to large and sudden swings. In addition it may be difficult or not possible to buy, sell or obtain accurate information about the value of securities mentioned in this report. Past performance is not necessarily a guide to future performance. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations. For the purpose of the FAA, the content of this report is of a general nature, is intended as a source of general information only and is not intended to constitute a recommendation or opinion in relation to acquiring or disposing (including refraining from acquiring or disposing) of securities. The distribution of this document is not a "personalised service" and, to the extent that it contains any financial advice, is intended only as a "class service" provided by Edison within the meaning of the FAA (ie without taking into account the particular financial situation or goals of any person). As such, it should not be relied upon in making an investment decision. To the maximum extent permitted by law, Edison, its affiliates and contractors, and their respective directors, officers and employees will not be liable for any loss or damage arising as a result of reliance being placed on any of the information contained in this report and do not guarantee the returns on investments in the products discussed in this publication. FTSE International Limited ("FTSE") © FTSE 2018. "FTSE@" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under license. All rights in the FTSE indices and/or FTSE ratings vest in FTSE and/or its licensors. Neither FTSE nor its licensors accept any liability for any errors or omissions in the FTSE indices and/or FTSE ratings or underlying data. No further distribution of FTSE Data is permitted without FTSE's express written consent.