

International Stem Cell

Biomedical sales more than double

International Stem Cell (ISCO) reported Q218 revenues of \$3.0m, up 72.4% compared to Q217 mainly due to the biomedical business, which had quarterly revenues of \$2.7m, up 103.1% compared to the same quarter last year. The operating profit of the biomedical business also increased substantially, up 139.6% to \$1.1m. With regard to the Phase I trial of ISC-hpNSC in Parkinson's disease (PD), the company has successfully dosed the first patient of the third cohort and expects to release interim sixmonth results from the second cohort in Q318.

Year end	Revenue (\$m)	PBT* (\$m)	EPS* (\$)	DPS (\$)	P/E (x)	Yield (%)
12/16	7.2	(4.9)	(1.52)	0.0	N/A	N/A
12/17	7.5	(4.9)	(1.19)	0.0	N/A	N/A
12/18e	11.2	(3.9)	(0.61)	0.0	N/A	N/A
12/19e	12.2	(8.2)	(1.22)	0.0	N/A	N/A

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

First patient in third and final cohort dosed

The first patient in the third cohort of four patients has been successfully dosed. As a reminder, patients in the study are being treated in three cohorts with 30m, 50m and 70m stem cells, delivered via intracranial injection. The single-arm, open-label study is being conducted at the Royal Melbourne Hospital in Australia. Clinical assessments are scheduled at six and 12 months following surgery.

Commercial business growth accelerating

ISCO's commercial operations leverage its hpSC technology and generate revenues to partially offset R&D spending for therapeutic development. Lifeline Skin Care develops and sells skincare products and Lifeline Cell Technology (LCT) produces human cell culture products for testing. Together they generated \$3.0m in sales in Q218, up 72.4% compared to the same quarter last year.

Three-dimensional (3D) liver structures developed

Through the use of human pluripotent stem cell derived-liver progenitor cells (hpLPC), the company was able to form liver-like tissue, which consists of hepatocytes, choangiocytes, and hepatic stellate cells. The company expects to license the technology for use in drug development and potentially as therapeutic tissue.

Valuation: \$36m or \$5.72 per basic share

We have increased our valuation to \$36m or \$5.72 per basic share from \$34m or \$5.46 per basic share. The increase is mainly due to higher revenue estimates for the base business (FY18/FY19 total revenue estimates up 27%/28% driven by the biomedical segment) and rolling forward our NPV. It was mitigated by an increase in long-term SG&A expense expectations and lower net cash. We project that the company will need at least \$60m in additional financing before profitability in 2024, of which a total additional \$5m will be required by the end of 2018.

Financial update

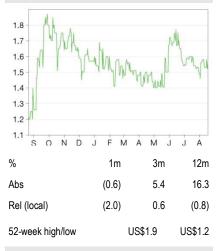
Pharma & biotech

20 August 2018

US\$1.57
US\$10m

Net debt (\$m) at 30 June 2018	0.6
Shares in issue	6.3m
Free float	40%
Code	ISCO
Primary exchange	ОТС
Secondary exchange	N/A

Share price performance



Business description

International Stem Cell is an early-stage biotechnology company developing therapeutic, biomedical and cosmeceutical applications for its proprietary stem form of pluripotent stem cells – human parthenogenetic stem cells. Its lead candidate is a cell therapy treatment for Parkinson's disease.

Next events

Six-month interim data, second cohort

Q318

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Edison profile page

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Q218 results review

The company reported Q218 revenues of \$3.0m, up 72.4% compared to Q217 (and up 15.4% sequentially compared to the previous quarter) mainly due to the biomedical business, which had quarterly revenues of \$2.7m, up 103.1% compared to the same quarter last year (and up 24.1% sequentially). The cosmetics business, however, was down 15.1% in the quarter and now represents just 12.8% of total revenues compared to 25.9% in the same quarter last year. The operating profit of the biomedical business also increased substantially, up 139.6% to \$1.1m, although the cosmetic business showed a loss for the quarter. The commercial businesses combined had a profit of \$865,000, up 114.6% compared to Q217. For the company as a whole, the operating loss was only \$366,000 for Q218, a decline of 63.5% compared to last year. We have made some adjustments to our model, increasing our 2018 revenue estimate for the commercial business to \$11.2m from \$8.8m and our 2019 estimate to \$12.2m from \$9.5m due to significant strength in the biomedical segment. We have reduced our 2018 R&D estimate by \$2.0m as the spending rate is lower than we had anticipated, but left future years unchanged. We also increased our SG&A expense estimate by \$0.6m in 2018 and by \$1.2m in 2019 due to a higher than anticipated run rate.

Exhibit 1	Exhibit 1: Changes to estimates									
\$000s Revenue			Operating profit			Profit after tax				
	Old	New	% change	Old	New	% change	Old	New	% change	
2018e	8,790	11,165	27.0%	(6,073)	(3,508)	42.2%	(6,673)	(3,908)	41.4%	
2019e	9,527	12,155	27.6%	(7,079)	(6,990)	1.3%	(8,479)	(8,190)	3.4%	

Source: Edison Investment Research. Note: Operating profit and profit after tax exclude amortization of acquired intangibles, exceptional items and share-based payments.

The company had \$477,000 in cash on the balance sheet at the end of Q218. There was \$1.1m in a related-party payable stemming from a promissory note that provided cash to the company from its co-chairman and CEO, with the note due and payable on 1 November this year. Subsequent to the quarter end, the principal amount of the note was increased to \$2m as the co-chairman and CEO agreed to provide an additional \$900,000 in increments based on the company's needs. We continue to project that the company will need at least \$60m (previously \$62.5m) in additional financing before profitability (which we include as illustrative long-term debt) in 2024, of which a total additional \$5m (previously \$7.5m) will be required by the end of 2018 and a further \$10m by the end of 2019.

Valuation

We have increased our valuation to \$36m or \$5.72 per basic share from \$34m or \$5.46 per basic share. The increase is mainly due to higher revenue and earnings estimates for the base business and rolling forward our NPV. It was mitigated by an increase in long-term SG&A expense expectations and lower net cash.

Exhibit 2: International Stem Cell valuation								
Product	Status	Launch	Peak sales (\$m)	NPV (\$m)	Probability	rNPV (\$m)	NPV/share (\$/share)	
Cosmetic and biomedical business	Commercial	Current	18	32	90%	29	4.58	
Parkinson's disease (royalties at 12% of sales)	Phase I/IIa	2024	2,800	543	7.5%	41	6.46	
G&A expense - after tax					100%	(33)	(5.22)	
Net cash (Q218)				(0.6)	100%	(0.6)	(0.10)	
Valuation				574		36	5.72	
Source: Edison Investment Research								

Source: Edison Investment Research



	US\$000 2016	2017	2018e	2019
Year end 31 December	GAAP	GAAP	GAAP	GAA
PROFIT & LOSS				
Revenue	7,165	7,456	11,165	12,15
Cost of Sales	(1,944)	(2,122)	(3,908)	(4,254
Gross Profit	5,221	5,334	7,257	7,90
Research and development	(2,856)	(2,658)	(2,500)	(6,500
EBITDA	(4,520)	(4,616)	(3,236)	(6,718
Operating Profit (before amort. and except.)	(4,851)	(4,942)	(3,508)	(6,990
Intangible Amortisation	Ó	0	Ó	,
Exceptionals	0	0	0	
Other	3,772	(1,127)	(27)	
Operating Profit	(1,079)	(6,069)	(3,535)	(6,990
Net Interest	0	0	(400)	(1,200
Profit Before Tax (norm)	(4,851)	(4,942)	(3,908)	(8,190
Profit Before Tax (reported)	(1,079)	(6,069)	(3,935)	(8,190
Tax	0	0	0	(5,155
Profit After Tax (norm)	(4,851)	(4,942)	(3,908)	(8,190
Profit After Tax (reported)	(1,079)	(6,069)	(3,935)	(8,190
\ /	3.2	, ,		
Average Number of Shares Outstanding (m)		4.2	6.4	6.
EPS - normalised (\$)	(1.52)	(1.19)	(0.61)	(1.22
EPS - normalised fully diluted (\$)	(0.34)	(1.46)	(0.61)	(1.22
EPS - (reported) (\$)	(0.34)	(1.46)	(0.61)	(1.22
Dividend per share (c)	0.0	0.0	0.0	0.0
Gross Margin (%)	72.9	71.5	65.0	65.
EBITDA Margin (%)	N/A	N/A	N/A	N/A
Operating Margin (before GW and except.) (%)	N/A	N/A	N/A	N/A
BALANCE SHEET				
Fixed Assets	4,553	4,009	4,830	5,65
Intangible Assets	3,484	2,922	3,538	4,15
Tangible Assets	1,011	1,013	1,217	1,42
Investments	58	74	75	7:
Current Assets	2,492	2,855	5,287	7,60
Stocks	1,390	1,307	1,682	2,17
Debtors	574	465	1,614	86
Cash	110	304	1,424	3,99
Other	418	779	567	56
Current Liabilities	(3,601)	(4,800)	(5,665)	(5,606
Creditors	(3,601)	(4,800)	(5,665)	(5,606
Short term borrowings	0	0	·	(45.000
Long Term Liabilities	0	0	(5,000)	(15,000
Long term borrowings	0	0	(5,000)	(15,000
Other long term liabilities	0	0	0 (5.10)	(7.055
Net Assets	3,444	2,064	(549)	(7,355
CASH FLOW				
Operating Cash Flow	(4,197)	(2,142)	(2,416)	(5,135
Net Interest	0	0	(400)	(1,200
Tax	0	0	Ó	(
Capex	(944)	(864)	(1,065)	(1,092
Acquisitions/disposals	Ó	0	0	, .
Financing	4,018	3,200	0	
Dividends	0	0	0	
Net Cash Flow	(1,123)	194	(3,880)	(7,427
Opening net debt/(cash)	(532)	(110)	(304)	3,57
HP finance leases initiated	0	(110)	0	0,07
Other	701	0	0	
Closing net debt/(cash)	(110)	(304)	3,576	11,00



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