

16 May 2023

Funding to realise opportunity

NEED TO KNOW

- BCT's novel microchip monitors cryogenic biosamples
- BCT has raised \$2.2m with potential +\$300K
- Allows for expansion of direct sales model

BCT's raising of \$2.2m with a potential additional \$300K from its SPP provides for expansion of its direct sales model. The company aims to build on its recent partnership with the New York Psychiatric Institute. In MST's view, the agreement validates BCT's new strategy. While only in early stage of implementation, BCT has grown its customer base from four laboratories in Q2FY22 to 25 in April, CY23. It plans to continue to expand its US sales team from the current four members to over ten over the next 12 months.

Investment Thesis

Strong industry growth outlook - BCT's first target market, cell therapies, is expected to grow from ~US\$7.8b market in 2019 to ~US\$48.2b by 2027¹.

Competitive advantage - BCT's Bluechiip® uniquely monitors each individual item, which compares to its competitors monitoring by cryo-storage box and other larger receptacles holding multiple items. BCT's competitive advantage is important to both regulators and customers.

New marketing strategy to drive sales growth/expand margin - BCT's new marketing strategy expands its current Original Equipment Manufacturer (OEM) model to include a direct marketing role. The aim is to actively drive sales growth in the smaller to mid-sized customer markets. The model allows for higher margins and reduces its current single key customer risk.

Valuation

MST's DCF 12-month valuation remains at \$0.06 per share, with a capital raise already included in the forecast. MST assumes that BCT's new direct sales marketing model will see the company free cashflow positive and profitable (NPAT) from 1HFY26 onwards. The model also assumes that BCT's 2-year contract agreement with Fujifilm Irvine Scientific and Labcon agreement continue at similar terms. The capital raising of A\$2.2m with a potential additional \$0.3m provides funding to deliver the valuation assumptions.

Risks

MST's valuation is subject to upside/downside risks including market penetration, sector growth, competitor behaviour, regulatory change and implementation of its new direct sales strategy. BCT may fail to gain market traction. BCT's key target market is the US. As the largest market there is competitive tension. The industry regulatory environment may change, bringing upside and downside risk. BCT's Bluechiip® may create interest from competitors and other sector corporates seeking a point of differentiation.

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Bluechiip® provides advanced tracking and monitoring solutions for the management of biological samples across a wide range of applications. Based on a unique patented technology, the MEMS-based wireless tracking contains no electronics. It represents a generational change from current tracking methods such as labels (handwritten and pre-printed), barcodes (linear and 2D), and Radio Frequency Identification. Growth of cell based and other therapies in healthcare present BCT with significant opportunity.

<https://www.bluechiip.com/>

Valuation	\$0.06 ps (unchanged)
Current price	\$0.03ps
Market cap	\$18m
Cash on hand end Q3FY23	\$A\$0.3m (as at Q3FY23)

Upcoming Catalysts and Newsflow

Period	
FY23	Finalise and execute Fuji supply agreement
FY23/FY24	New direct sales customer purchase orders
FY23/FY24	Expansion of sales force

Share Price (A\$)



Source: FactSet, MST Access

1. Ravi et al. (2020). Cell Therapy Market by Cell Type (Stem Cell and Non-Stem Cell), Therapy Type (Autologous and Allogenic), Therapeutic Area (Malignancies, Musculoskeletal Disorders, Autoimmune Disorders, Dermatology, and Others), and End User (Hospitals & Clinics and Academic & Research Institutes): Global Opportunity Analysis and Industry Forecast, 2020-2027.

BlueChiip

Year end 30 June

MARKET DATA

Share Price	A\$	0.03
52 week high / low	A\$	0.02 -0.05
Valuation (12 month forward)	A\$	0.06
Market capitalisation	A\$m	18
Shares on issue	m	699
Options	m	-
Other equity	m	100
Potential shares on issue (diluted)	m	799

INVESTMENT FUNDAMENTALS

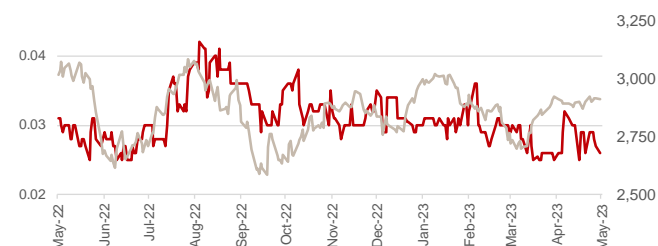
		FY21	FY22	FY23E	FY24E
EPS Reported (undiluted)	¢	(0.5)	(0.5)	(0.8)	(0.7)
EPS Underlying (undiluted)	¢	(0.5)	(0.5)	(0.8)	(0.7)
Underlying EPS growth	%	n/m	n/m	n/m	n/m
P/E Reported (undiluted)	x	n/m	n/m	n/m	n/m
P/E at Valuation	x	n/m	n/m	n/m	n/m
Dividend	¢	-	-	-	-
Payout ratio	%	0%	0%	0%	0%
Yield	%	-	-	-	-

KEY RATIOS (A\$)

		FY21	FY22	FY23E	FY24E
Forecast year end shares	m	594	598	699	799
Market cap (Y/E / Spot)	\$m	17.8	17.9	21.0	24.0
Net debt /(cash)	\$m	(4.8)	(0.9)	0.8	2.2
Enterprise value	\$m	13.0	17.1	21.7	26.2
EV/Sales	x	7.3	9.8	19.3	14.9
EV/EBITDA	x	n/m	n/m	n/m	n/m
EV/EBIT	x	n/m	n/m	n/m	n/m
Net debt / Enterprise Value	x	n/m	n/m	n/m	n/m
Gearing (net debt / EBITDA)	x	1.5	0.3	(0.1)	(0.4)
Operating cash flow per share	\$	(0.0)	(0.0)	(0.0)	(0.0)
Price to operating cash flow	x	n/m	n/m	n/m	n/m
Free cash flow	\$m	(2.0)	(3.2)	(4.2)	(3.9)
Free cash flow per share	\$	n/m	n/m	n/m	n/m
Price to free cash flow	x	n/m	n/m	n/m	n/m
Free cash flow yield	%	n/m	n/m	n/m	n/m
Book value / share	\$	0.01	0.01	0.00	0.00
Price to book (NAV)	x	2.5	4.1	9.4	21.0
NTA / share	\$	0.01	0.01	0.00	0.00
Price to NTA	x	2.5	4.1	9.4	21.0
EBITDA margin	%	n/m	n/m	n/m	n/m
ROE (Average Equity)	%	n/m	n/m	n/m	n/m
ROA (EBIT)	%	n/m	n/m	n/m	n/m
Interest cover (EBIT / net interest)	x	n/m	n/m	n/m	n/m

BCT-AU

12 month performance



PROFIT AND LOSS (A\$m)

		FY21	FY22	FY23E	FY24E
Revenue & Other Income	\$m	1.8	1.7	1.1	1.8
Expenses	\$m	(5.0)	(4.8)	(6.2)	(7.1)
EBITDA	\$m	(3.3)	(3.1)	(5.1)	(5.4)
Depreciation & amortisation	\$m	(0.0)	(0.0)	(0.0)	(0.0)
EBIT	\$m	(3.3)	(3.1)	(5.1)	(5.4)
Interest	\$m	0.0	0.0	0.0	(0.0)
Tax	\$m	-	-	-	-
Underlying NPAT	\$m	(3.2)	(3.1)	(5.1)	(5.4)

BALANCE SHEET (A\$m)

		FY21	FY22	FY23E	FY24E
Cash	\$m	5.9	2.8	1.1	(0.3)
Term deposit	\$m	-	-	-	-
Receivables	\$m	1.1	1.1	0.6	1.0
Inventory	\$m	1.6	3.0	3.2	3.5
PPE	\$m	0.0	0.0	0.0	0.0
Intangibles	\$m	-	-	-	-
Other	\$m	0.2	0.1	0.1	0.1
Total Assets	\$m	8.8	7.0	5.0	4.3
Payables	\$m	0.4	0.4	0.6	1.0
Deferred revenue	\$m	1.1	1.9	1.9	1.9
Employee benefits	\$m	0.2	0.3	0.3	0.3
Total Liabilities	\$m	1.8	2.6	2.8	3.2
Shareholder's Equity	\$m	7.1	4.4	2.2	1.1

CASH FLOW (A\$m)

		FY21	FY22	FY23E	FY24E
Receipts from customers	\$m	1.2	0.6	1.1	1.5
Payments to suppliers and employees	\$m	(5.4)	(4.9)	(6.2)	(7.1)
Other (R&D)	\$m	1.7	0.8	0.3	0.3
WC	\$m	0.4	0.3	0.7	1.4
Interest	\$m	0.0	0.0	0.0	(0.0)
Operating cash flow	\$m	(2.0)	(3.2)	(4.2)	(3.9)
Capex	\$m	-	-	-	-
Acquisitions	\$m	-	-	-	-
Other	\$m	-	-	-	-
Investing cash flow	\$m	-	-	-	-
Borrowings	\$m	-	-	-	-
Equity	\$m	-	-	2.5	2.5
Dividend	\$m	-	-	-	-
Financing cash flow	\$m	-	-	2.5	2.5
Change in Cash / FX	\$m	(2.0)	(3.2)	(1.7)	(1.4)
Year end cash	\$m	5.9	2.8	1.1	(0.3)

Source: MST Access, FactSet, Company Reports

Investment Thesis - Leveraging BCT's unique technology in a changing market

Bluechiip® (BCT.AX) has developed a novel microchip for monitoring/tracking items/samples stored/transported in cryogenic temperatures. Its initial target market is the pharmaceutical industry. The investment thesis is based on:

1. BCT's strategy to leverage its technology in a changing industry

Evolving industry demands higher standards

From a regulatory stance, as an emerging therapeutic approach, the strong growth of biological therapies brings higher risk and as such a demand for greater scrutiny. **Regulatory oversight is growing with increasing compliance requirements for provenance of the samples and the need for storage conditions to be documented.** Documentation including identification, type of sample/specimen, associated diseases and/or therapeutic protocols, environmental information are becoming accepted practice.

Recent recommendations from industry bodies include:

- The International Society for Biological and Environmental Repositories (ISBER) Best Practices recommends either evidence-based or consensus-based practices for collection, long-term storage, retrieval and distribution of specimens.
- ISBER Best Practices recommend that freeze/thaw cycles of samples should be kept to a minimum.
- College of American Pathologists Guidelines highlight the importance of monitoring temperature and any fluctuations.

Bluechiip® uniquely meets emerging industry trends

BCT meets the need for more formalised, automated systems to manage the growing sample collections. Its novel microchip, Bluechiip® monitors/tracks each sample that requires storage and/or transportation in temperatures ranging -196°C to +100°C. It is the only system that can provide data including temperature monitoring to the individual sample level. In addition, its 'Advanced Solution System' offers data management programs and as such, provides its clients with efficiencies and cost benefits. Industry practices include hand-written labels that are commonly illegible in the frosted conditions and/or monitoring by cryoboxes and other larger storage vessels of multiple specimens. The current manual systems do not allow accurate recording of removal/return of individual samples over time.

2. Target sectors offer strong growth

BCT's initial target markets within the pharmaceutical sector, are In Vitro Fertilisation (IVF), stem cell and regenerative medicine therapies. From a commercial perspective, the sector offers high value and margins with strong growth trends. Currently, billions of biological samples, including human/animal cells, bacteria, viruses, serum/plasma and DNA/RNA, are in storage for potential application in research, diagnostics and treatments. In addition, public (government) and private non-profit organizations are pursuing nation-wide or international programs for biobanking of specimens. Advances in cell and gene-based therapeutics, blood-based products, vaccines and medical services such as IVF also offer strong growth. Emerging therapies such as genomics and personalised medicine bring further growth. The potential for storage of up to 30 years compounds the demand for storage.

Cold chain food logistics also present as a growing opportunity. Other applications of its technology include industrial manufacturing and Security/Defence services in high temperatures where tools/parts are exposed to gamma/ionising radiation.

3. New direct sales model

MST's valuation recognises BCT's new marketing strategy. Its dispute with Labcon North America, its largest Original Equipment Manufacturer (OEM) partner in 2020 highlighted its exposure to a 'single large customer risk'. To mitigate the risk and take advantage of its experience in the market, BCT is expanding its inhouse sales/marketing team. The strategy aims to grow market coverage and realise higher margins over time.

Regulatory oversight is growing with increasing compliance requirements for provenance of the samples.

Bluechiip® offers unique advantage of tracking each individual sample.

The potential for storage of samples of up to 30 years compounds the demand for storage.

Funding to build direct sales model

BCT's sales strategy has been based on an Original Equipment Manufacturer (OEM) model. A dispute with Labcon North America, its largest partner in 2020 highlighted its exposure to a 'single large customer risk'. To mitigate the risk and take advantage of its experience in the market, BCT will use the funding to expand its inhouse sales/marketing team. The strategy aims to grow market coverage and realise higher margins over time.

Under its direct sales model, BCT is targeting the healthcare and pharmaceutical sectors. Research and development (R&D) of new therapies including stem cell and regenerative medicines are driving demand for storage of biological samples. The potential markets are large. They include human/animal cells, bacteria, viruses, serum/plasma and DNA/RNA, which carry applications in research, diagnostics and treatments. The sector growth brings increasing attention and oversight from the regulatory authorities and demand for higher industry standards. BCT's novel Bluechiip® microchip and its range of 'Bluechiip®' enabled storage vessels coupled with IT monitoring systems provide a solution for the growing regulatory/industry compliance requirements.

BCT recently announced a partnership with the New York Psychiatric Institute, a consortium which includes New York State Psychiatric Institute, Research Foundation for Mental Hygiene and the Columbia University Department of Psychiatry. BCT is to supply its Advanced Management Solution for monitoring the temperature and tracking of biological samples in the consortium's biobank.

BCT will supply 25 laboratories, up from four in Dec Qtr CY21.

Figure 1: Number of new laboratories and total laboratories

	Dec Q 21	Mar Q 22	Jun Q 22	Sep Q 22	Dec Q 22	Apr-23
New Laboratories		1	5	2	1	12
Total Laboratories	4	5	10	12	13	25

Source: Bluechiip

The new model offers higher margins and importantly control of the sales/marketing program. Prior to the new sales model, BCT focused on an OEM model. Labcon North America is its key contract. Under the OEM model, BCT receives low single digit cents per microchip. In 2020, a dispute regarding Labcon's contract highlighted the company's exposure to a single customer risk. While the dispute was resolved positively for BCT, management has taken action to offset the single customer risk and develop a direct sales model.

A 'direct sales model' customer example shows expected annual revenues of US\$272K. This compares to the OEM model of a few cents per Bluechiip® sold, acknowledging BCT incurs the sales and marketing costs and COGS.

Figure 2: Example - New customer initial revenue flows

Recurring yearly revenue once customer is onboard



Source: Bluechiip

In MST's view, BCT's direct sales model strategy to target smaller healthcare and biological R&D institutions bears logic. Its key competitors include large multinational corporates such as Thermo Fisher Scientific Inc (Market Capitalisation of US\$220b), which have multiple product offerings and significantly

greater marketing resources and reach. The giant corporates' focus on the multinational pharma and large biotech entities, leaves the growing smaller research laboratories and biobanks a promising potential market for BCT.

MST's revenue assumptions include forecasts to rise from A\$30K per lab per quarter to A\$50K per lab per quarter in FY25 as the company gains traction. MST's model assumes the company will be free cashflow positive and NPAT positive from 1HFY26 onwards.

Valuation, Risks Sensitivities

MST's Discounted Cash Flow (DCF) 12-month valuation of BCT is \$0.06 per share (current share price of \$0.03ps). MST assumes that BCT's new marketing model will see the company free cash flow positive and profitable (NPAT) from 1HFY26 onwards.

Figure 3: Key Assumptions in DCF Valuation

Key Assumptions	
Revenue	Revenue per new lab of A\$30k per Qtr; to rise to A\$50k in FY25
Lab Growth	New lab growth to rise from 3 per Qtr to 5 per Qtr in FY25
COGS	COGS ~30% and assumed to lower as volumes rise
Sales force	Sales force to grow to 10 in FY24
Cash flow & Profitability	Free Cashflow Flow positive and profitability (NPAT) from 1HFY26 onwards
Contracts	Assumes Labcon & Fuji contracts continue

Source: MSTe

The valuation is subject to the upside/downside risks around the assumptions regarding market penetration, sector growth, competitor behaviour, roll out of its new sales strategy. The valuation accounts for BCT's change in strategy to focus on a 'direct to customer' approach as well as its current OEM model.

Sales reps are planned to expand to 10 in FY24 from four currently.

BCT's new business strategy will require the appointment of new staff over FY24, bringing higher costs before significant revenue flows. MST's revenue assumptions include the average quarterly revenues per lab to rise from the current A\$30K to A\$50K in FY25. Sales reps are planned to expand to 10 in FY24 from four currently. The number of labs is expected to grow from currently around three per qtr to five per qtr. MST model assumes the company will be free cashflow positive and NPAT positive from 1HFY26 onwards. These assumptions may not eventuate.

The model also assumes Fujifilm Irvine Scientific and Labcon contracts will continue at similar terms. BCT's competitors include large multinational corporates such as Thermo Fisher Scientific Inc, (Market Capitalisation US\$220b) which have multiple product offerings and significantly greater marketing resources and reach. Proof of significant uptake of BCT's technology may invite corporate activity/licensing revenues.

The implementation of the new strategy may vary to MST's assumptions which brings upside and downside risk. BCT may fail to gain market traction. BCT's key target market is the US. As the largest market it creates competitive tension. Timing may also vary to MST's estimates as BCT implements its new strategy. The industry regulatory environment may change, bringing upside and downside risk. BCT's Bluechiip® may create interest from competitors and corporates seeking a point of differentiation in the company. The potential gross capital raising of \$2.5m coupled with cash at H1FY23 of A\$575K allows for BCT to grow its marketing team and more aggressively pursue the direct sales model.

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