

ASX Announcement

For immediate release

Thursday, 30 November 2023

2023 AGM Presentation

Bluechiip Limited (**Bluechiip** or the **Company**) (**ASX: BCT**), a leader in the development of advanced sample management solutions for harsh environments, provides the 2023 Annual General Meeting presentation.

END.

Authorised for release by the Bluechiip Limited Board

For more information, please contact:

Corporate enquiries

Andrew McLellan
Managing Director / CEO
Ph: +61 457 823 470
andrew.mclellan@bluechiip.com

Media

Richard Allen
Ph: +61 403 493 049
Oxygen Financial PR
richard@oxygenpr.com.au

About Bluechiip Limited

Bluechiip understands that every biological sample – stem cells, blood, eggs, sperm and other biospecimens – is critical, so our objective is to manage each one with optimal quality in the most efficient way. Bluechiip's Advanced Sample Management Solution is the only one that provides sample temperature with ID in cryogenic environments, driving productivity and improving quality. Bluechiip's solution delivers confidence in every sample.

Bluechiip's unique patented technology is a MEMS-based wireless tracking solution that 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. Bluechiip tags are either embedded or manufactured into storage products such as vials or bags. Each product is easily identified and critical information, such as sample temperature, detected by readers and stored in the Bluechiip software. In addition to functioning in extreme temperatures, the Bluechiip® Advanced Sample management solution can survive autoclaving, gamma irradiation sterilization, humidification, centrifuging, cryogenic storage and frosting.

Bluechiip listed on the ASX in June 2011. Since then, we have significantly developed our technology. Today it has applications in healthcare, including in cryogenic storage facilities (biobanks and



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biorepositories), pathology, clinical trials and forensics. Other key markets include cold-chain logistics/supply chain, security/defence, industrial/manufacturing and aerospace/aviation.

Bluechiip: Delivering confidence in every sample.

Further information is available at www.bluechiip.com



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Bluechiip Fundamentals





Drives productivity



Redefines Quality



- World first, highly differentiated technology: 40 granted patents
- >>\$1B growing target markets: Pharma, clinical trials, cell therapies, biobanking, IVF and vaccines requiring Ultra Low temperature ID and temperature traceability
- >>300M/yr high value bio-samples handled at -80°C & -196°C
- New Go To Market Strategy: CE & FDA Registered Bluechiip Enabled Solutions
- Expanded US sales team driving significant customer pipeline
- Growing customer base 28 Labs across 17 customers with over 130 lab opportunity
 - 3 Global top 20 pharma already customers
 - IVY league research institute and leading biopharma groups as customers
- Accelerating repeat orders from customer base up 85% growth Qtr on Qtr
- FujiFilm Partnership in IVF
- >\$3m inventory & scaled production capacity of over 5m chips/yr

Bluechiip Overview





Link to corporate video

https://www.bluechiip.com/investor/company-overview/

Key Achievements

Bluechiip Enabled Solutions Product in Market

- ISO9001, CFR21-11 software, CE IVD & FDA registration
- Scaled chip supply chain (3m+)
- Hierarchy of Storage Range Released
- Refined Bluechiip reader platforms
- Stream 23 software released

Accelerating Customer Adoption & Pipeline Building

- Expanded US sales & Marketing Team from 2 to 7
- Customer adoption in EU, US & APAC with rapidly growing repeat orders
- Rapidly expanded customer opportunity pipeline

Storage

Bluechiip Readers

Software















Bluechiip Enabled Laboratories

End-user Feedback and Market Progression



"The Bluechiip System allows me to have a significant amount of oversight throughout our banking process" Dr Akhil Chawla MD Clinical Assistant Professor of Surgery



"Bluechiip helps us work more efficiently with confidence in sample integrity and identity"

Dr Mary Clare McCorry Director of Technology and Process Development



"The Bluechiip system provides a full audit trail to help us adhere to Good Manufacturing Practice"

Dominika Lykova Cell Therapy Specialist

New York State **Psychiatric Institute**

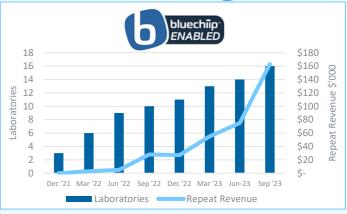


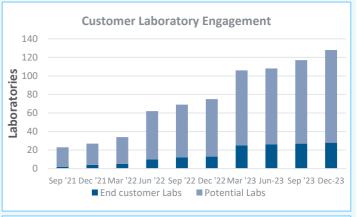


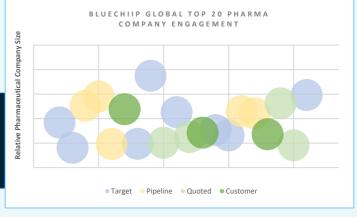
Palacký University

Growing install base 28 labs across 17 accounts including 3 large Global Pharma companies & Ivy League Core Facility









Vision

To be the global leader in ID and sensing technology for extreme environments

Mission

To advance research and medicine by providing confidence in every sample

Major ID and Sensing Technology Sectors

Primary Focus



Lifesciences Cold Chain incl Logistics, Storage and Monitoring

Item level **ID** and temperature tracking of containers holding high value samples through-out the cryogenic cold chain cycle. Including Banking, Transport and Monitoring where **frost** is usually present, and ID errors have high risk and impact.



Cold Chain Logistics Food

Item level tracking of frozen, and temperature sensitive food products through-out the cold chain cycle.



Industrial and **Manufacturing**

Item level ID and high/low temperature tracking tools and parts, structural health monitoring, items exposed to ionizing radiation such as nuclear products, sterilised medical devices, disposables and some food products.



Security and Defence

Anti counterfeiting fashion, art, and high value commercial items. Cloning a bluechiip tag is extremely difficult. Parts that are exposed to ionizing radiation, security and defence.

Bluechiip is highly differentiated in Lifescience Cold Chain with core technology benefits and large market opportunity

Life-science Cold Chain Market Trends



Increasing sample numbers and retrieval rates

PRODUCTIVITY

Minimise total cost of sample ownership and ROI



Increased demand for advanced therapies and sensitive samples

SAMPLE VALUE

ID tech needs to keep up with higher value samples



Criticality of sample history maps and reports

SAMPLE QUALITY

Maximise specimen integrity via adequate cold chain handling and reporting



Increasing demand for cryo (-196°C and - 80°C) storage

CRYO TECH

Utilisation of cryo-safe technology and processes

Biosample Management Technology is Not Keeping up With the Increasing Value of Biosamples





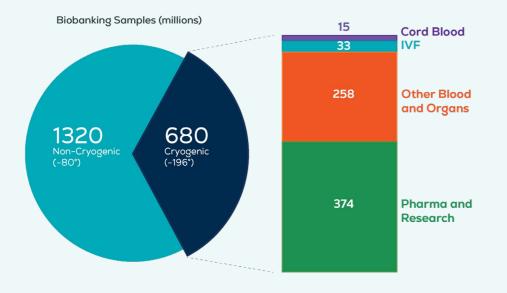




Primary Market Opportunity

Global Bio-Preservation Market \$3.1B in 2020 -Projected \$4.9B in 2025 (CAGR 9.2%)^

Samples in Storage*



Primary Bluechiip Applications

Life Science Market Opportunities

Target Market	Market Size by Samples	Bluechiip Addressable Market
Bio-preservation	300m+ samples/year >2B in storage	US\$600m+
Assisted Reproductive Technology (IVF)	2.5m IVF Cycles/year 5-8 consumables per cycle >33m samples in storage	US\$50m+
Clinical trials and research	>35m samples/year	US\$70m+
Cell therapies, Pharmaceuticals	3m samples/year 15m+ in storage	US\$30-50m+

Total Bio-Preservation: 2B Samples in Storage 300M new samples per year in over 10,000 laboratories

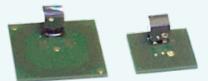
Sources: "Markets and Markets 2020 *Visual Fuse and Markets and Markets 2014

Bluechiip MEMS Core Technology Advantages

Bluechiip's sensor tag consists of a silicon chip (1mm²) with 52 mechanical beams that provide a unique ID when read. The chip is connected to an antenna available in multiple form factors, providing communication of both ID and temperature to a centralized database. Bluechiip's Tag provides key advantages over other forms of ID in cryogenic environments.

		RFID		6	
		RFID	Barcodes	Bluechiip	
	Non-visual ID Reads through frost	~*	*	✓	
20% 20%	Cryosafe Operates down to -196C	*	*	√	
	Guaranteed unique ID ID cannot be overwritten or duplicated	x	×	✓	
	On-board sensor Senses temperature on each scan	x	×	✓	1
(Ÿ)	Sterilization proof Gamma, E-beam, Autoclave	* ^	✓	\checkmark	,





^{*}Majority of RFID unreliable below -40C.

[^]Some newer RFID's have resistance

Bluechiip offers the only Advanced Sample Management solution providing sample temperature with ID in cryogenic environments

We understand that every sample is critical and managing each one with optimal quality, in the most efficient way is the objective

Bluechiip Enabled **Storage**

Bluechiip Readers **Bluechiip Stream Software**







Bluechiip's goal is to deliver confidence in every sample



Bio-Pharma – Single Tank Revenue Model







\$5.3k each



\$19k

Stream Sample Manager Software



Initial Capital Expenditure \$42.9k



65k vial tank \$280k/yr



Modular software license \$12k/yr

Yearly revenue



\$280k in every tank



Additional lab expansion across customers sites

Confidence in Every Sample

Bluechijp's unique and patented technology is designed to operate across a wide temperature range from -196°C to over +150°C, creating the perfect system for managing sensitive samples. Bluechiip Enabled Sample Storage, Readers and Software combine to provide an unparalleled ability to track and store sample level data, including temperature across the cold chain process.

Redefining Quality

- Eliminating errors through optimized inventory management
- Enabling compliance to industry standards and internal procedures
- Capturing ID and temperature at the sample level for cold chain integrity
- Reducing the risk of temperature excursions in cryogenic conditions
- Providing key workflow insights to drive continuous improvement

Driving Productivity

- Reducing manual processes and eliminating double witnessing
- Identifying multiple samples instantly through frost
- Simplifying inventory handling for faster processing
- Driving efficiency at every step of the workflow





Bluechiip Enablement – Research Institute







Freezers 45+

Challenge

The Research Institute needed a solution to centralize and standardize sample management across multiple user groups and locations, many without traceability of their freezers' contents.

Solution

By digitizing existing and new sample inventory, Bluechiip provides the Institute with a single, easy to use platform to track a variety of sample types across multiple freezers.

Starting with 5 freezers and 1 user group, the system has now been rolled out to more than 20 lab groups across the freezer farm.



Samples 0.5M+





Bluechiip Enablement Global Pharma R&D Lab











Challenge

A major pharmaceutical R&D facility had poor control of cryovial location data within their LN2 storage tank. Required a solution that could operate across their LN2 sample inventories and their -80C and reagent (-20C) freezers.

Solution

Bluechip's Multivial reader provides the laboratory a reliable traceability of individual cryovial locations within cryoboxes being transferred into and out of the automated LN2 store.

The laboratory manages their entire inventory of tanks and freezers in the Bluechiip Stream database and Bluechiip's Flexi Module is being utilized to enabled the registration and tracking of reagents in the -20C freezer.



Multiple -80 Freezers



Reagent tracking at -20C



Bluechiip - Path to Market





Bluechiip Direct Solutions

Direct to market: North America

Global distribution network

Consumables, Readers, Software Sales model



Primary Target Markets

- **Bio-preservation**
- Clinical trials and research
- Cell therapies & Pharmaceuticals





Partnerships: Bluechiip Enabled Solutions

- Developer kits sold to global corporations for due diligence
- Conversion to licence agreements and Bluechiip Enabled solutions
- Ongoing licence fees
- Development and service revenues
- Sale of Bluechiip Enabled Consumables, readers & software



Major Licence agreements

- FujiFilm Industries Irvine Scientific
- Labcon distribution agreement

Growth Initiatives For A Bluechiip Future



- Landing New Accounts through Aggressive Sales & Marketing in US
- Expanding within accounts into new labs & expanding repeat revenue
- Building distribution networks in Europe & Asia in FY'24
- Growing our direct customer base globally across the >>\$1B, Ultra Low temperature clinical trials, cell therapies, pharma biobanking markets
- Execution and conversion of our Major partnerships
- Continued expansion and protection of our world first, highly differentiated technology: >40 granted patents
- Building operational & manufacturing capabilities to meet demand



Landing and expanding new accounts, new labs and growing repeat orders



Building global distribution channels





Contact

Andrew McLellan Managing Director & CEO **Telephone** +61 (0)3 9763 9763 Mobile +61 (0)457 823 470

Email andrew.mclellan@bluechiip.com

bluechiip.com

