

# Biotron Limited

ASX: BIT Bloomberg BIT AU Reuters: BIT.AX

2 October 2001

Chris Kallos  
612 8274 1163  
chris.kallos@assirtequities.com

**\$0.30**  
**SPEC. BUY**

## C-Test (CT1) to Commence Clinical Trials

# of Shares:	57M	Market Cap (\$M):	17	Current Price:	\$0.30
% All Ords:	0.00	% Sector:	na	Valuation:	\$0.67

FIGURE 1: SHARE PRICE CHART

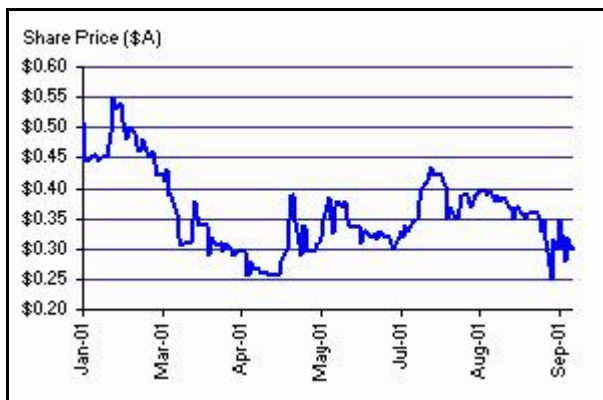


TABLE 1: EARNINGS SUMMARY

Yr to 30 Jun	1999A	2000A	2001A	2002F
Profit (A\$M)	0	0	-1	-3
EPS (c)	n/a	0.0	-2.2	-4.4
Div (c)	0.0	0.0	0.0	0.0
P/E (x)	n/a	n/a	-13.5	-6.9
Yield (%)	0.0	0.0	0.0	0.0
Franking (%)	0	0	0	0
Chg EPS (%)	n/a	n/a	n/a	n/a

### Event

Biotron (BIT) today announced the commencement of clinical trials of its lead cancer diagnostic C-Test (CT1). In addition the company announced a strategic collaboration agreement with Bruker Daltonics Inc (Nasdaq:BDAL), a multi national developer and supplier of medical and research-based instruments (market capitalisation of US\$845m).

### Impact

Progress to full-scale human clinical trials of the C-Test (CT1) represents a significant milestone in the commercialisation of BIT's intellectual property. Furthermore the sensitivity and speed of analysis available from mass spectrometry, as well as its versatility, makes this technology attractive for a growing range of applications including automated diagnostic screening procedures. Instrument miniaturization, coupling mass spectrometry with other analytical techniques, such as the novel cancer diagnostic screening test being developed by BIT, represents a significant step in the mainstreaming of the instrument in primary healthcare.

### Summary

Structural issues in the global pharmaceutical industry are creating opportunities for small biotechnology research companies. Biotron is seeking to exploit these opportunities with a novel platform technology developed at JCSMR.

### Investment Opinion

We believe Biotron offers exposure to the exciting, if somewhat speculative, end of the biotechnology sector. The downside risk for investors are delays in achieving any licensing related outcomes. Notwithstanding the long lead time required for the commercialisation of Biotron's seven project portfolio, we have valued (on an NPV basis) the company's three more mature projects (CT-1, CT-2, Virion) at 67¢ per share.

**C-Test (CT1).** As indicated in our initial report dated 8 February 2001, the C-Test (CT1) project is one of seven projects currently being conducted by BIT at the ANU facility. The test being developed seeks to detect a unique component of the human immune system, whose absence has been identified by Dr Chris Parish as correlating with the presence of cancer in the body. The test represents an improvement on currently used immunoassay diagnostic techniques, such as the PSA, for its accuracy and general screening applications. Unlike immunoassay approaches, which rely on measures using monoclonal antibody interactions and tumour-specific single antigens, the C-Test (CT1) holds promise of accurately detecting the presence of all types of cancer in the first instance. The use of mass spectrometry to measure for the absence of the unnamed constituent remains a key aspect of the C-Test (CT1).

**Mass Spectrometry.** Since its introduction 100 years ago, the mass spectrometer (MS) has become a standard scientific research tool in the analysis of low molecular weight particles. These have included trace quantities of pollutants and drugs, gases and stable-isotopes. The basic mechanism of action involves an electron-impact source, used to generate a beam of electrons to ionise volatilised molecules under investigation. The resulting particles are then benchmarked on the basis of fragmentation patterns and mass-charge ratios for the purpose of determining atomic weights. Various types of MS instruments have evolved using different and specialized methods for smashing and ionising the target molecules, but are all essentially the same technique in principle.

**Clinical Trials.** The company has conducted extensive animal studies and preliminary human trials, using the technique of matrix assisted laser desorption/ionisation time of flight (MALDI-TOF) mass spectrometry, as initial proof of concept. Results to date have indicated a 100% success rate in the detection of the presence of cancer. BIT is now proceeding to full-scale clinical trials expected to be complete in 12 months and involve blood samples from approximately 1,500 subjects sourced from medical institutions in New South Wales, Victoria and the ACT. The National Health Sciences Centre (NHSC) will conduct the clinical trials, under agreement with BIT. We note that the NHSC clinical trials unit has conducted trials for and maintains close relationships with global pharmaceutical companies including Eli Lilly, Servier, NovoNordisk, Pharmacia, Novartis and Aventis.

**Bruker Collaboration.** BIT also announced a strategic alliance with Bruker Daltonics Inc (NASDAQ:BDAL) to co-develop an integrated C-Test/Mass spectrometer product utilising the company's OMNIFLEX™ mass spectrometer and associated software/hardware. Under the agreement Biotron and Bruker will collaborate technically and commercially in the development of the test and the potential extension of the product to the analysis of other biomarkers. We view the coupling of BIT's C-Test (CT1) project with the established mass spectrometer supplier, Bruker Daltonics, as a significant step towards ultimate commercialisation of BIT's intellectual property. We believe the alliance provides leverage to both parties through the expansion of the use of mass spectrometry into mainstream cancer diagnostics given the advantages over current early cancer detection techniques in terms of accuracy, sensitivity and general screening applications.

**FY01 Result.** BIT announced full year results for the period ended 30 June 2001. A loss of \$1.3m was compared with our forecast loss of \$0.3m. The result reflects start up costs associated with the expansion of R&D facilities and included the purchase of the Bruker Daltonic's Mass Spectrometer albeit at a significant discount to purchase price and costs attributed to the ASX float of approximately \$1m.

**Valuation.** Our valuation of BIT currently stands at 67 cents on the basis of successful progress of all three mature projects within the current investment environment. We note the C-Test (CT1) will generate revenues for BIT on a fee-per-test basis. In addition we note all intellectual property developed by BIT during the Bruker collaboration will accrue to BIT. Our initial conservative assessment assumes a target market of \$1.0 billion in diagnostic cancer screening tests versus the company's prospectus estimate of \$1.6 billion.

## Summary and Outlook

We believe the commencement of full-scale C-Test (CT1) human clinical trials and the strategic alliance with major mass spectrometry player Bruker Daltonics are significant milestones in the commercial development of Biotron's intellectual property. Notwithstanding the potential for international exposure, the Bruker collaboration delivers a technical valuable ally in the ongoing development of the C-Test (CT1) and access to potential technology transfer and distribution capabilities of an established global player. That said, we believe the added involvement of the NHSC Clinical trials unit raises the possibility of closer associations with major pharmaceutical players in BIT's several other projects.

### Disclosure of Interest:

ASSIRT Equities has been commissioned to prepare an independent report by Johnson Taylor Potter Corporate Finance Limited and will receive a fee for preparation of this report.



Peter Leodaritis  
Managing Director  
Phone: 61 2 8274 1101  
peter.leodaritis@aer.com.au

Johan Hedstrom  
Head of Company Research  
Phone: 61 2 8274 1157  
johan.hedstrom@aer.com.au

#### FINANCIALS

Peter Rae  
Senior Analyst – Financials  
Phone: 61 2 8274 1151  
peter.rae@aer.com.au

Radek Zeleny  
Analyst – Financials  
Phone: 61 2 8274 1168  
radek.zeleny@aer.com.au

Selwyn Chong  
Analyst – Insurance  
Phone: 61 2 8274 1164  
selwyn.chong@aer.com.au

Ravi Reddy  
Analyst – Financials  
Phone: 61 2 8274 1165  
ravi.reddy@aer.com.au

#### INDUSTRIALS

James Gray  
Analyst – Manufacturing & Engineering  
Phone: 61 2 8274 1161  
james.gray@aer.com.au

Timothy Mann  
Analyst – Building Materials & Transport  
Phone: 61 2 8274 1155  
timothy.mann@aer.com.au

Anne Barnett  
Analyst – Food & Retail  
Phone: 0414 927 543  
anne.barnett@aer.com.au

Simon Oaten  
Analyst – Infrastructure & Utilities  
Phone: 61 8274 1127  
simon.oaten@aer.com.au

#### PROPERTY TRUSTS

Tim Spencer  
Analyst – Property  
Phone: 61 2 8274 1162  
tim.spencer@aer.com.au

#### TELECOMMUNICATIONS, MEDIA & TECHNOLOGY

Ken Fleming  
Senior Analyst – TMT Sector  
Phone: 61 3 6223 3800  
ken.fleming@aer.com.au

Max Wheeler  
Analyst – Telecommunications  
Phone: 61 3 6223 3800  
max.wheeler@aer.com.au

Tim Spencer  
Analyst – Media  
Phone: 61 2 8274 1162  
tim.spencer@aer.com.au

Rodney Lay  
Analyst – Technology  
Phone: 61 2 8274 1106  
rodney.lay@aer.com.au

#### LIFE SCIENCES

Chris Kallos  
Analyst – Healthcare & Biotechnology  
Phone: 61 2 8274 1163  
chris.kallos@aer.com.au

#### RESOURCES

Johan Hedstrom  
Senior Analyst – Resources Sector  
Phone: 61 2 8274 1157  
johan.hedstrom@aer.com.au

David Radclyffe  
Analyst – Gold & Metals  
Phone: 61 2 8274 1156  
david.radclyffe@aer.com.au

Simon Oaten  
Analyst – Oil & Gas  
Phone: 61 8274 1127  
simon.oaten@aer.com.au

#### SMALLER COMPANIES

Johan Hedstrom  
Senior Analyst – Smaller Companies  
Phone: 61 2 8274 1157  
johan.hedstrom@aer.com.au

Andrew Hills  
Analyst – TMT  
Phone: 61 2 8274 1167  
andrew.hills@aer.com.au

Selwyn Chong  
Analyst – Industrials  
Phone: 61 2 8274 1164  
selwyn.chong@aer.com.au

Anthony Farnham  
Analyst – Industrials  
Phone: 61 2 8274 1150  
tony.farnham@aer.com.au

Chris Kallos  
Analyst – Life Sciences  
Phone: 61 2 8274 1163  
chris.kallos@aer.com.au

#### STRATEGY & ECONOMICS

John Banos  
Chief Strategist  
Phone: 61 2 8274 1100  
john.banos@aer.com.au

Phillip O'Sullivan  
Consultant – Economics  
poscon@bigpond.com

#### QUANTITATIVE ANALYSIS

Ravi Reddy  
Analyst – Quantitative Analysis  
Phone: 61 2 8274 1165  
ravi.reddy@aer.com.au

#### TECHNICAL ANALYSIS

Greg Tolpigin  
Technical Strategist  
Phone: 61 2 8274 1105  
greg.tolpigin@aer.com.au

#### Disclaimer & Disclosure of Interest

This publication has been prepared by ASSIRT Equities Research Pty Limited (ACN 085 293 910) ("ASSIRT Equities") a licensed securities dealer. Whilst the information contained in this publication has been prepared with all reasonable care from sources, which ASSIRT Equities believes are reliable, no responsibility or liability is accepted by ASSIRT Equities for any errors or omissions or misstatements however caused. Any opinions, forecasts or recommendations reflects the judgement and assumptions of ASSIRT Equities as at the date of publication and may change without notice. ASSIRT Equities and its officers, agents and employees exclude all liability whatsoever, in negligence or otherwise, for any loss or damage relating to this document to the fullest extent permitted by law. This publication is not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. Any securities recommendation contained in this publication is unsolicited general information only. ASSIRT Equities is not aware that any recipient intends to rely on this publication or of the manner in which a recipient intends to use it. In preparing our information, it is not possible to take into consideration the investment objectives, financial situation or particular needs of any individual recipient. Investors should obtain individual financial advice from their investment advisor to determine whether recommendations contained in this publication are appropriate to their investment objectives, financial situation or particular needs before acting on such recommendations. This publication is not for public circulation or reproduction whether in whole or in part and is not to be disclosed to any person other than the intended recipient, without obtaining the prior written consent of ASSIRT Equities. ASSIRT Equities its officers, employees or its related bodies corporate may, from time to time hold positions in any securities included in this report and may buy or sell such securities or engage in other transactions involving such securities. ASSIRT Equities and its Directors and associates declare that from time to time they may hold interests in and/or earn brokerage, fees or other benefits from securities mentioned in this publication.

ASSIRT Equities, its officers, employees and its related bodies corporate have not and will not receive, whether directly or indirectly, any commission, fee, benefit or advantage, whether pecuniary or otherwise in connection with making any recommendation contained in this report and/or on this web site. ASSIRT Equities discloses that from time to time, it or its officers, employees and its related bodies corporate may have an interest in the securities, directly or indirectly, which are the subject of these recommendations or may perform paid services for the companies that are the subject of such recommendations. HOWEVER, UNDER NO CIRCUMSTANCES, HAS ASSIRT EQUITIES BEEN INFLUENCED, EITHER DIRECTLY OR INDIRECTLY, IN MAKING ANY RECOMMENDATION CONTAINED IN THIS REPORT AND/OR ON THIS WEB SITE.

This information must be read in conjunction with the [Legal Notice](http://www.aer.com.au/legal_notice) which can be located at <http://www.aer.com.au/disclaimer.asp>