



## SPEC BUY

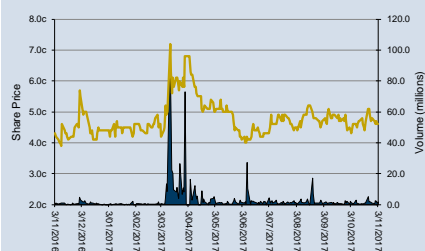
Current Price 4.6c  
Valuation 9.5c

Ticker:	BOT.ASX		
Sector:	Biotechnology		
Shares on Issue (m):	543.1		
Market Cap (\$m):	25.0		
Net Debt / (Cash) (\$m):	-4.2		
Enterprise Value (\$m):	20.7		
52 wk High/Low:	0.07	0.04	
12m Av Daily Vol (m):	2.74		
<b>Risk adjusted valuation (NPVs):</b>			
BTX 1503 (\$m)	27.3		
BTX 1204 (\$m)	14.0		
BTX 1308 (\$m)	11.0		
BTX 1701 (\$m)	10.3		
Less: Corporate Costs (\$m)	-6.9		
Add: Unpaid Capital (\$m)	40.4		
Total portfolio (\$m)	96.1		
Assumed dilution (%)	51%		
Diluted Portfolio Value (\$m)	47.4		
Add: Current Cash (\$m)	4.2		
Valuation (\$m)	51.6		

<b>Financials:</b>	<b>3Q FY17</b>	<b>4Q FY17</b>	<b>1Q FY18</b>
Op CF (\$m)	-0.8	-2.8	-1.5
Inv CF (\$m)	0.0	0.0	0.0
Fin CF (\$m)	0.0	7.0	-0.0
Net CF (\$m)	-0.8	4.2	-1.5
Cash (\$m)	1.5	5.7	4.2

<b>Shareholders:</b>	
Matthew Callahan (Exec Director)	13.0%
Caperi Pty Ltd (Co-founder)	13.0%
Other board & management	3.0%

### Share Price Graph



Friday, 3 November 2017

## Botanix (BOT)

### Pipeline Starting to Flow

Analysts | Daniel Williamson | Ian Christie, CFA

### Quick Read

BOT has maintained a strict development timeline, with results from its Phase 1b BTX 1503 acne study expected in early CY2018. In addition, BOT now has ethics approval to commence a Phase 1b patient study for its dermatitis treatment (BTX 1204) whilst other products for the treatment of acne (BTX 1701) and psoriasis (BTX 1308) remain in the pipeline. A diversified pipeline de-risks BOT's portfolio and adds value, underpinning our SPEC BUY call on a revised 9.5c valuation (previously 8.0c).

### Event & Impact | Positive

**Flagship study:** BOT is currently progressing a Phase 1b pilot study for its flagship BTX 1503 acne treatment. The study is expected to be completed prior to the end of CY2017 with data available in early CY2018. Results will give the first indication of BTX 1503's efficacy in treating acne, albeit for a small 20-patient sample size.

**Progressing dermatitis study:** BOT has also received ethics approval to commence its first BTX 1204 dermatitis patient study. Dermatitis affects up to 25m people in the US, with current marketable treatments generating ~\$3.8bn p.a. in sales. The study will commence immediately with expected completion in 1H CY2018. BOT can move straight into a Phase 1b study for BTX 1204 based on successful Phase 1a data for its BTX 1503 acne treatment.

**Prescription route:** Management has reviewed commercialisation options for BTX 1701, a potential acne treatment. BOT now believes that the prescription market is the most commercially attractive option. We have adjusted our model accordingly, resulting in a ~15% uplift in our risk-adjusted valuation for the product. The uplift in value is muted due to significantly more risk and time associated with the FDA approvals process. By comparison, our forecast BTX 1701 approved asset value increases by 212% (see Page 2).

**Permetrex-enabled opportunities:** At the same time BOT is maintaining a strong development pipeline and potentially providing for near-term revenues through a number of paid collaborations to utilise the Permetrex™ delivery technology. Whilst initial payments are small, potential exists for more substantial licensing fees in the future.

**Eyewatering comparisons:** The recent IPO of Sienna Biopharmaceuticals (NASDAQ:SNNA) provides for an eyewatering comparison (see Page 3). Sienna has a topical treatment for psoriasis currently in a Phase 2b study. Its most recent market cap was US\$409m. Whilst more advanced than BOT, the lofty market cap does give an indication of the substantial value uplift if products navigate the FDA approvals process, de-risking along the way.

### Recommendation

SPEC BUY maintained on a risk-adjusted valuation of 9.5c per share (previously 8.0c).

**It is evident that the prescription pathway is the most commercially attractive route for BTX 1701...**

**... but elevated risks mute the impact on our 'risk-adjusted' valuation for the asset**

**Our valuation adjusts likely asset values for the significant risks associated with the FDA process**

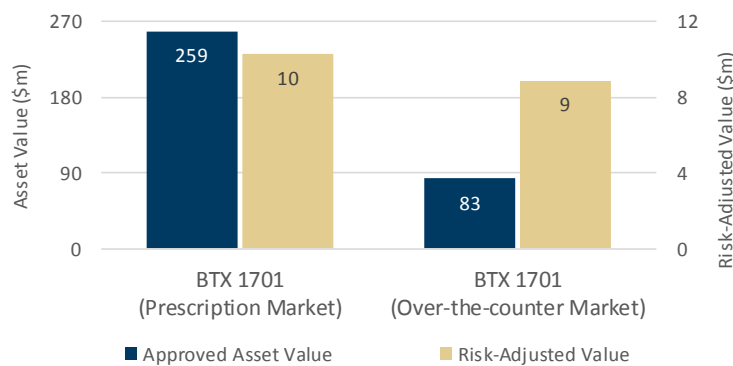
**Successful trials provide key inflection points for substantial value uplift of candidate products**

## Prescription route provides valuation uplift

Whilst we agree that the prescription pathway, through the FDA approvals process, provides the most commercially attractive option, the risk-adjusted value uplift in our model is somewhat muted due to elevated risks and time to approval.

However, as shown in Figure 1 below, the value uplift as BOT progress the FDA approvals process is more than evident. By our estimates the approved asset value increases approximately 212% as a result of targeting the prescription market over adopting the OTC pathway.

Figure 1: Risks associated with the prescription route mute risk-adjusted valuation uplift



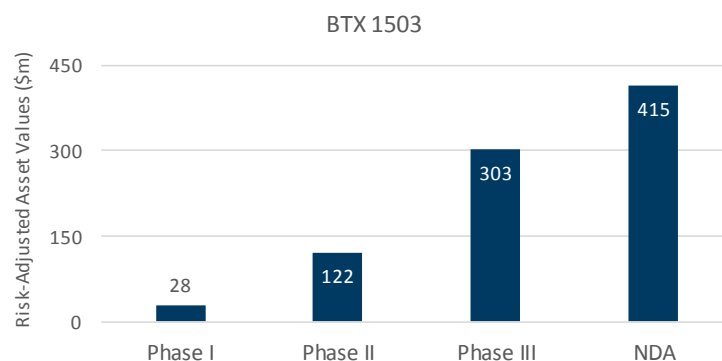
Source: Argonaut forecasts

## Upside as products navigate approvals process

It should be noted that our valuation increases substantially as BOT moves through the approvals process. This is because successful clinical trials substantially de-risk the candidate drug and, as such, the likelihood of approval increases from phase to phase.

The value uplift as products progress through clinical trials is demonstrated in Figure 3 below. For BOT's flagship acne product (BTX 1503) the risk-adjusted asset value increases from A\$28m post successful Phase 1 trials, to A\$122m post successful Phase 2 trials, to over A\$300m post successful Phase 3 trials. The final approved asset value to BOT shareholders is potentially A\$415m (pending a successful New Drug Application [NDA]).

Figure 3: Value uplift for BTX 1503 after successful clinical phases



Source: Argonaut forecasts

## Comps – Big market caps and even bigger deals

The potential prize for BOT shareholders is highlighted by market valuations of NASDAQ listed companies with products in latter stages of FDA approval

*Table 1: Comparable dermatology focussed biotech companies*

Company	Treatments	Market Cap
Sienna Biopharmaceuticals (NASDAQ:SNNA), IPO on NASDAQ in July 2017	<p>Topical treatment for pruritus and psoriasis (SNA-120), currently in Phase IIb trials</p> <p>Topical treatment for atopic dermatitis, psoriasis and pruritus (SNA-125), currently in pre-clinical development</p> <p>Class II medical device for treatment of acne (SNA-001), application filed for FDA 510(k) clearance</p>	US\$409m
Dermira Inc (NASDAQ:DERM), IPO on NASDAQ in March 2017	<p>Injectable treatment for plaque psoriasis (CIMZIA), completed Phase III and currently awaiting NDA approval</p> <p>Topical treatment for primary axillary hyperhidrosis (or excessive sweating), completing Phase III trials</p> <p>Topical treatment for acne, currently in Phase III trials</p> <p>Injectable treatment for atopic dermatitis (Lebrikizumab), currently in Phase II trials</p>	US\$1.1bn

Source: pharmamedtechbi.com

Recent deals in the dermatology space range from US\$90m in the pre-clinical stage to US\$5.2bn for drugs completing Phase 3 trials

*Table 2: Recent pharmaceutical deals in the dermatology space*

Deal	Treatments	Deal Value
Roche offloads Lebrikizumab drug rights to Dermira in August 2017	Repurposed atopic dermatitis treatment (IL-13 drug Lebrikizumab), expected to go straight into Phase IIb study	US\$1.4bn
Allergan acquired Vitae Pharmaceuticals in October 2016	<p>Oral psoriasis treatment (VTP-43742), in Phase II clinical trials</p> <p>Topical atopic dermatitis treatment (VTP-38543), in Phase II clinical trials</p>	US\$639m
Sienna Biopharmaceuticals acquired Creabilis in December 2016	<p>Topical psoriasis treatment (CT327), in Phase IIb clinical trials</p> <p>Topical atopic dermatitis treatment (CT340), in pre-clinical development</p>	US\$150m
Allergan acquired Anterios in January 2016	<p>Topical drug delivery technology (NDS™)</p> <p>Topical acne treatment (ANT-1207), in pre-clinical development</p>	US\$90m
Leo Pharma acquired Astells global dermatology business in April 2016	<p>Topical atopic dermatitis treatment (Protopic®), currently on the market</p> <p>...among other products for the treatment of acne and skin infections</p>	~US\$770m
Pfizer acquired Anacor in May 2016	Topical atopic dermatitis treatment (Crisabarole), completing Phase III clinical trials	US\$5.2b
Purdue acquired drug rights from Exicure in December 2016	Topical psoriasis treatment (AST-005), completed Phase I clinical trials	US\$790m

Source: pharmamedtechbi.com

**RESEARCH:**

**Ian Christie** | Director, Industrial Research  
+61 8 9224 6872 ichristie@argonaut.com

**Matthew Keane** | Director, Metals & Mining Research  
+61 8 9224 6869 mkeane@argonaut.com

**James Wilson** | Analyst, Metals & Mining Research  
+61 8 9224 6835 jwilson@argonaut.com

**Helen Lau** | Analyst, Metals & Mining Research  
+852 3557 4804 hlau@argonaut.com

**Daniel Williamson** | Analyst, Industrial Research  
+61 8 9224 6831 dwilliamson@argonaut.com

**INSTITUTIONAL SALES - PERTH:**

**Chris Wippl** | Executive Director, Head of Sales & Research  
+61 8 9224 6875 cwippl@argonaut.com

**John Santul** | Consultant, Sales & Research  
+61 8 9224 6859 jsantul@argonaut.com

**Damian Rooney** | Director, Institutional Sales  
+61 8 9224 6862 drooney@argonaut.com

**Ben Willoughby** | Institutional Dealer  
+61 8 9224 6876 bwilloughby@argonaut.com

**Phil Russo** | Institutional Dealer  
+61 8 9224 6813 prusso@argonaut.com

**Josh Welch** | Institutional Dealer  
+61 8 9224 6868 jwelch@argonaut.com

**George Ogilvie** | Institutional Dealer  
+61 8 9224 6871 gogilvie@argonaut.com

**INSTITUTIONAL SALES – HONG KONG:**

**Damian Rooney** | Director, Institutional Sales  
+61 8 9224 6862 drooney@argonaut.com

**CORPORATE AND PRIVATE CLIENT SALES:**

**Glen Colgan** | Executive Director, Desk Manager  
+61 8 9224 6874 gcolgan@argonaut.com

**Kevin Johnson** | Executive Director, Corporate Stockbroking  
+61 8 9224 6880 kjohnson@argonaut.com

**James McGlew** | Executive Director, Corporate Stockbroking  
+61 8 9224 6866 jmcglew@argonaut.com

**Ian Dorrington** | Director, Corporate Stockbroking  
+61 8 9224 6865 idorrington@argonaut.com

**Geoff Barnesby-Johnson** | Senior Dealer, Corporate Stockbroking  
+61 8 9224 6854 bj@argonaut.com

**Rob Healy** | Dealer, Private Clients  
+61 8 9224 6873, rhealy@argonaut.com

**Cameron Prunster** | Dealer, Private Clients  
+61 8 9224 6853 cprunster@argonaut.com

**James Massey** | Dealer, Private Clients  
+61 8 9224 6849 jmassey@argonaut.com

**Chris Hill** | Dealer, Private Clients  
+61 8 9224 6830, chill@argonaut.com

**Important Disclosure**

Argonaut acted as the Lead Manager to the Placement that raised \$7.4M in April 2017 and will receive fees commensurate with this service. Argonaut holds or controls 12.1M BOT Options exercisable at \$0.03 on or before 30 June 2019.

**Argonaut Snapshot**

**Purpose of the report:** It provides a background and overview, or update, for a Company that is typically at an early stage of its life cycle. Argonaut *does* provide a view and recommendation based on Company review, the outlook and management discussion.

**Risk:** There is a high degree of risk associated with a Company at an early stage of its life cycle. It is not certain whether the Company will be successful in establishing its products and / or services, or that it will be able to obtain the funding necessary to do so. Earnings and financial risks therefore must be considered high.

**Information Disclosure**

Each research analyst of this material certifies that the views expressed in this research material accurately reflect the analyst's personal views about the subject securities and listed corporations. None of the listed corporations reviewed or any third party has provided or agreed to provide any compensation or other benefits in connection with this material to any of the analyst(s).

**General Disclosure and Disclaimer**

This research has been prepared by Argonaut Securities Pty Limited (ABN 72 108 330 650) ("ASPL") or by Argonaut Securities (Asia) Limited ("ASAL") for the use of the clients of ASPL, ASAL and other related bodies corporate (the "Argonaut Group") and must not be copied, either in whole or in part, or distributed to any other person. If you are not the intended recipient you must not use or disclose the information in this report in any way. ASPL is a holder of an Australian Financial Services License No. 274099 and is a Market Participant of the Australian Stock Exchange Limited. ASAL has a licence (AXO 052) to Deal and Advise in Securities and Advise on Corporate Finance in Hong Kong with its activities regulated by the Securities and Futures Ordinance ("SFO") administered by the Securities and Futures Commission ("SFC") of Hong Kong.

Nothing in this report should be construed as personal financial product advice for the purposes of Section 766B of the Corporations Act 2001 (Cth). This report does not consider any of your objectives, financial situation or needs. The report may contain general financial product advice and you should therefore consider the appropriateness of the advice having regard to your situation. We recommend you obtain financial, legal and taxation advice before making any financial investment decision.

This research is based on information obtained from sources believed to be reliable and ASPL and ASAL have made every effort to ensure the information in this report is accurate, but we do not make any representation or warranty that it is accurate, reliable, complete or up to date. The Argonaut Group accepts no obligation to correct or update the information or the opinions in it. Opinions expressed are subject to change without notice and accurately reflect the analyst(s)' personal views at the time of writing. No member of the Argonaut Group or its respective employees, agents or consultants accepts any liability whatsoever for any direct, indirect, consequential or other loss arising from any use of this research and/or further communication in relation to this research.

Nothing in this research shall be construed as a solicitation to buy or sell any financial product, or to engage in or refrain from engaging in any transaction. The Argonaut Group and/or its associates, including ASPL, ASAL, officers or employees may have interests in the financial products or a relationship with the issuer of the financial products referred to in this report by acting in various roles including as investment banker, underwriter or dealer, holder of principal positions, broker, director or adviser. Further, they may buy or sell those securities as principal or agent, and as such may effect transactions which are not consistent with the recommendations (if any) in this research. The Argonaut Group and/or its associates, including ASPL and ASAL, may receive fees, brokerage or commissions for acting in those capacities and the reader should assume that this is the case.

There are risks involved in securities trading. The price of securities can and does fluctuate, and an individual security may even become valueless. International investors are reminded of the additional risks inherent in international investments, such as currency fluctuations and international stock market or economic conditions, which may adversely affect the value of the investment.

The analyst(s) principally responsible for the preparation of this research may receive compensation based on ASPL's and / or ASAL's overall revenues.

**Hong Kong Distribution Disclosure**

This material is being distributed in Hong Kong by Argonaut Securities (Asia) Limited which is licensed (AXO 052) and regulated by the Hong Kong Securities and Futures Commission. Further information on any of the securities mentioned in this material may be obtained on request, and for this purpose, persons in the Hong Kong office should be contacted at Argonaut Securities (Asia) Limited of Unit 701, 7/F, Henley Building, 5 Queen's Road Central, Hong Kong, telephone (852) 3557 48000.

**Copyright**

© 2017. All rights reserved. No part of this document may be reproduced or distributed in any manner without the written permission of Argonaut Securities Pty Limited and / or Argonaut Securities (Asia) Limited. Argonaut Securities Pty Limited and Argonaut Securities (Asia) Limited specifically prohibits the re-distribution of this document, via the internet or otherwise, and accepts no liability whatsoever for the actions of third parties in this respect.