



## SPEC BUY

Current Price \$0.07  
Target Price \$0.20

Ticker:	BOT.ASX		
Sector:	Biotechnology		
Shares on Issue (m):	757.4		
Market Cap (\$m):	58.3		
Net Debt / (Cash) (\$m):	-14.2		
Enterprise Value (\$m):	44.1		
52 wk High/Low:	0.19	0.05	
12m Av Daily Vol (m):	3.46		
<b>Risk adjusted valuation (NPVs):</b>			
BTX 1503 (\$m)	77.2		
BTX 1204 (\$m)	23.0		
BTX 1308 (\$m)	19.2		
BTX 1701 (\$m)	17.4		
BTX 1801 (\$m)	0.0		
Less: Corporate Costs (\$m)	-9.6		
Add: Unpaid Capital (\$m)	45.1		
Total portfolio (\$m)	172.3		
Assumed dilution (%)	20%		
Diluted Portfolio Value (\$m)	137.4		
Add: Current Cash (\$m)	14.2		
Valuation (\$m)	151.6		
<b>Financials:</b>	<b>3Q18A</b>	<b>4Q18A</b>	<b>1Q19A</b>
Op CF (\$m)	-1.1	-5.4	-3.0
Inv CF (\$m)	0.0	0.0	-0.0
Fin CF (\$m)	14.0	7.5	0.0
Net CF (\$m)	12.9	2.1	-3.0
Cash (\$m)	15.1	17.2	14.2
<b>Shareholders:</b>			
Matthew Callahan (Exec Director)	9.3%		
Caperi Pty Ltd (Co-founder)	9.3%		
Other board & management	3.0%		

### Share Price Graph



Please refer to important disclosures at end of the report (from page 5)

Wednesday, 21 November 2018

## Botanix (BOT)

### Company Update

Analyst | Michael Eidne

#### Quick Read

BOT has four studies underway two clinical studies and one patient study and one lab-based investigation to test the efficacy of cannabidiol (CBD) in treating acne, atopic dermatitis, psoriasis as well testing the impact of CBD on anti-biotic resistance microbes. There is a growing interest in CBD as a therapy for a number of diseases, and to this end, there are currently 148 global CBD studies underway. BOT is the only dermatology study. BOT has also boosted its team with the appointment of industry veterans with extensive experience of getting drugs through the FDA approval process. We maintain our Speculative Buy recommendation with a price target of \$0.20.

#### Event & Impact / Positive

**BOT has four studies underway:** BOT has four studies underway, two clinical studies and one patient study and one lab-based investigation.

Product	Indication	Stage	Expected Readout
BTX 1503	Moderate to severe acne	Phase 2	Circa end Q2 CY2019
BTX 1204	Atopic dermatitis	Phase 2	Circa end Q2 CY2019
BTX1308	Psoriasis	Phase 1b	End Q1 2019
BTX 1801	Antimicrobial	Pre-Clinical	End Q4 CY2018

**Research Interest into Cannabidiol is Growing:** The increasing interest in researching the potential of cannabidiol is demonstrated by the fact there are currently 148 Cannabinoid (CBD) based studies underway. BOT is currently the only group investigating the use of CBD for dermatological treatments giving BOT first-mover advantage in what is becoming an important new compound in medical science.

**The Approval of Epidiolex paves the way for other CBD based products:** The approval of Epidiolex for use in children for epilepsy is a positive step for other CBD based therapies because it means the FDA is comfortable with the safety profile of CBD for use in humans, particularly children. The FDA is also keen to promote the use of CBD therapies and is actively encouraging the use of FDA approved studies.

**Expanded Team:** BOT has expanded its team, and it now includes individuals with the skills needed to progress the company's products towards FDA approval.

#### Recommendation

In our opinion BOT is a strong investment proposition as it is working in a developing drug area with strong macro tailwinds thanks to the increasing acceptance of CBD based therapies across a variety of diseases. There are many unmet needs that CBD can address thanks to its anti-inflammatory properties. BOT is pregnant with news flow, and from early next calendar year, there will be a number of key announcements that if positive, will further de-risk the company and set it up for the next iteration of growth. We maintain our Speculative Buy recommendation with a price target of \$0.20, and we ascribe no value to BTX 1801 at this time.

## Investment Points

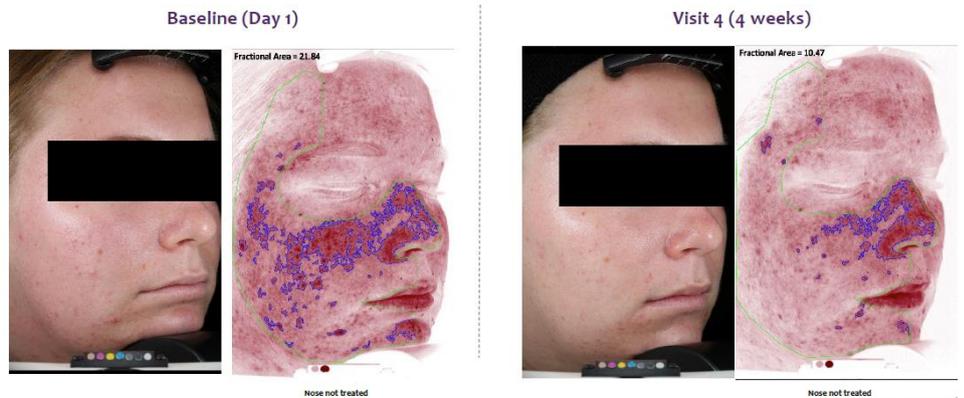
### BOT has four studies underway

BOT has four studies underway, two clinical studies and one patient study and one lab-based investigation.

**BOT has four studies underway with data expected within the next 1 to 7 months.**

Product	Indication	Stage	Study Design	Current Activity	Expected Readout
BTX 1503	Moderate to severe acne	Phase 2	12 Week randomised, double-blind, vehicle-controlled	Study Underway	Circa end Q2 CY2019
BTX 1204	Atopic dermatitis	Phase 2	12 Week randomised, double-blind, vehicle-controlled	Study Pending – start Q4 CY2018	Circa end Q2 CY2019
BTX1308	Psoriasis	Phase 1b	A patient study using Bioskin	Study underway	End Q1 2019
BTX 1801	Antimicrobial	Pre-Clinical	Identification of skin disease indication	Lab study with U. Queensland	End Q4 CY2018

Figure 1: Newly processed images from the Phase 1b study showing a reduction in pimples over a week period.



Source: BOT

Figure 2: The bioskin patch being used in the Psoriasis study



Source: BOT

## Research Interest into Cannabidiol is Growing:

**Research interest into Cannabidiol is growing with 148 global studies underway.**

The increasing interest in researching the potential of cannabidiol is demonstrated by the fact there are currently 148 global Cannabinoid (CBD) based studies underway. A large proportion of these studies are focussed on epilepsy as there has been much interest in epilepsy, and the recent approval of Epidiolex by the US Food and Drug Administration (FDA) is a big step forward for the use of CBD based treatments.

The FDA approval of Epidiolex is helping to change the regulatory framework around cannabis making it easier for patients to access the medication. This easing of restrictions will make it easier for large drug companies to commercialise the product thereby making BOT more attractive to potential partners.

**Israel is emerging as leading centre of cannabis research and a number of therapies have proven to be effective.**

Israel is emerging a centre of cannabis research particularly with regards to autism and epilepsy. There are recorded instances of patients who suffered repeated seizures of up to one every hour and when treated with CBD, becoming seizure free allowing them to resume a normal life.

While researchers admit that they are at the beginning of the journey to understand the compounds in the cannabis plant, it is thought that the unique anti-inflammatory properties of CBD promote the healing process across a number of diseases.

BOT is currently the only group investigating the use of CBD for dermatological treatments giving BOT first-mover advantage in what is becoming an important new compound in medical science.

## The Approval of Epidiolex paves the way for other CBD based products

**The recent FDA approval of Epidiolex will make the approval of other CBD based treatments easier.**

The approval of Epidiolex for use in children for epilepsy is a positive step for other CBD based therapies because it means the FDA is comfortable with the safety profile of CBD for use in humans, particularly children.

The FDA is also keen to promote the use of CBD therapies and is actively encouraging the use of FDA approved studies. The FDA Commissioner Scott Gottlieb, M.D said post the approval of the first Epidiolex.

**The FDA is supportive of CBD treatments as long as drug has been proven in a clinical study.**

“Controlled clinical trials are testing the safety and efficacy of a drug, along with careful review through the FDA’s drug approval process, is the most appropriate way to bring marijuana-derived treatments to patients. Because of the adequate and well-controlled clinical studies that supported this approval, prescribers can have confidence in the drug’s uniform strength and consistent delivery that support appropriate dosing needed for treating patients with these complex and serious epilepsy syndromes.”

Epidiolex has also been rescheduled from a schedule 1 drug to a schedule 5 drug making the distribution far easier as a lot of the restrictions have been removed. While the recreational use of THC laden marijuana is likely to remain contentious, the use of CBD based treatments is likely to become far more mainstream. 31 States have medical marijuana laws, and 60% of the US population live in states that have legalised marijuana making access to marijuana-based medication a lot simpler.

**BOT has appointed a high quality team with years of experience of getting drugs approved by the FDA.**

#### **Expanded Team**

BOT has expanded its team, and it now includes individuals with the skills needed to progress the company's products towards FDA approval. Of particular interest is Dr Judith Plon who has 30 years regulatory experience with multiple FDA approved dermatology products. Another new hire Ms Jillian Chapas Reed also has 20 years of clinical trial experience across dermatology and immunology. The balance of the team all have experience in bringing new drugs to market.

**We maintain our Speculative Buy recommendation and a price target of \$0.20.**

#### **BOT is a strong investment proposition**

In our opinion BOT is a strong investment proposition as it is working in a developing drug area with strong macro tailwinds thanks to the increasing acceptance of CBD based therapies across a variety of diseases. There are many unmet needs that CBD can address thanks to its anti-inflammatory properties. Inflammation underpins a large number of disease states and CBD seems to be able to address a number of them which is more than likely due to humans having a large number of cannabinoid receptors.

We maintain our Speculative Buy recommendation and a price target of \$0.20, we ascribe no value BTX 1801 at this time.

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**Important Disclosure**

Argonaut acted as Joint Lead Manager to the Placement that raised \$15.0M in February 2018 and received fees commensurate with this service. Argonaut acted as Joint Lead Manager to the Placement that raised \$8.0M in June 2018 and received fees commensurate with this service. Argonaut holds or controls 12.1M BOT Options exercisable at \$0.03 on or before 30 June 2019.

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