ASX/Media Release

23 October 2019

BTX 1503 acne Phase 2 study results presentation

Philadelphia PA and Sydney Australia, 23 October 2019: Clinical stage cannabinoid company Botanix Pharmaceuticals Limited (ASX:BOT, "Botanix" or "the Company") is pleased to release a presentation providing further information on the BTX 1503 acne Phase 2 study results.

Key highlights

- **All doses of BTX 1503 were very safe - no serious adverse events or treatment related discontinuations while achieving positive effects on acne lesion reductions**
- **BTX 1503 as a once daily application had the best performance, which from a compliance and commercial perspective, is the ideal dosing regime**
- **A strong and consistent impact on inflammatory lesions was seen across the entire study with even greater non-inflammatory lesion reductions**
- **Australian sites showed clear separation of BTX 1503 5% once a day vs vehicle - 40.8% vs 26.4% for inflammatory and 38.1% vs 5.1% for non-inflammatory lesions**
- **Patients in the USA that received vehicle had a high vehicle response which skewed the primary endpoint**

About Botanix Pharmaceuticals

Botanix Pharmaceuticals Limited (ASX:BOT) is a clinical stage synthetic cannabinoid company based in Perth (Australia) and Philadelphia (USA) committed to the development of pharmaceutical products that are underpinned by science and supported by well-controlled randomised clinical trials. The Company's focus is the development of safe and effective topical treatments for serious skin diseases, leveraging the unique anti-inflammatory, immune modulating and antimicrobial properties of synthetic cannabidiol. Botanix has an exclusive license to use a proprietary drug delivery system (Permetrex™) for direct skin delivery of active pharmaceuticals in all skin diseases.

The Company has announced data from its Phase 2 clinical study and is moving forward with its clinical program with a Phase 2 FDA meeting. A Phase 2 patient study in atopic dermatitis is on target to complete enrolment in 4Q CY2019 with data in 1Q 2020. The Company has successfully completed a mechanism of action study for synthetic cannabidiol in skin disease, with positive data announced in June 2019 and is developing a pipeline of product candidates that leverages the antimicrobial properties of cannabidiol, with first products planned to enter the clinic in 2H CY2019.

To learn more please visit: https://www.botanixpharma.com/

For more information, please contact:

General enquiries	Investor enquiries	Media enquiries
Corporate Communications	Joel Seah	Haley Chartres
Botanix Pharmaceuticals	Vesparum Capital	Hales[2] Communications
P: +61 8 6555 2945	P: +61 3 8582 4800	P: +61 423 139 163
investors@botanixpharma.com	botanixpharma@vesparum.com	haley@h-squared.com.au

Cautionary Note on Forward-Looking Statements

Any statements in this press release about future expectations, plans and prospects for the Company, the Company's strategy, future operations, and other statements containing the words "anticipate," "believe," "estimate, "expect," "intend," "may," "plan," "predict," "project," "target, "potential," "will," "would," "could," "should," "continue," and similar expressions, constitute forward-looking statements. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: the Company's ability to successfully develop its product candidates and timely complete its planned clinical programs and the Company's ability to obtain marketing approvals for is product candidates. In addition, the forward-looking statements included in this press release represent the Company's views as of the date hereof. The Company anticipates that subsequent events and developments will cause the Company's views to change. However, while the Company may elect to update these forward-looking statements at some point in the future, the Company specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing the Company's views as of any date subsequent to the date hereof.

botanix
PHARMACEUTICALS

RESTORING HEALTHY SKIN

Phase 2 Acne Top-Line Results Overview

23 October 2019

BTX 1503: Phase 2 Top Line Data

Solid efficacy and safety results show BTX 1503 5% once-a-day dose is the best treatment to take forward into Phase 3 studies

BTX 1503 is safe and effective	All doses of BTX 1503 were very safe - no serious adverse events or treatment related discontinuations while achieving positive effects on acne lesion reductions
BTX 1503 once a day is the dose	BTX 1503 as a once daily application had the best performance, which from a compliance and commercial perspective, is the ideal dosing regime
Clinical response	A strong and consistent impact on inflammatory lesions was seen across the entire study with even greater non-inflammatory lesion reductions
Australian data is clear and supports Phase 3	Australian sites showed clear separation of BTX 1503 5% once a day vs vehicle - 40.8% vs 26.4% for inflammatory and 38.1% vs 5.1% for non-inflammatory lesions
USA only vehicle response	Patients in the USA that received vehicle had a high vehicle response which skewed the primary endpoint

Source – BTX 1503 Phase 2 Study Results released 22 October 2019

botanix PHARMACEUTICALS

BTX 1503: Phase 2 Study Design

12-week randomised, double-blind, vehicle-controlled study to evaluate the safety and efficacy of BTX 1503 in patients with moderate to severe acne

Study Design

- **5 dose groups: 368 subjects in total**
  - 5% twice a day (BID): 92 subjects
  - 5% once a day (QD): 92 subjects
  - 2.5% once a day (QD): 92 subjects
  - Vehicle once a day (QD): 46 subjects
  - Vehicle twice a day (BID): 46 subjects
- **36 US and Australian dermatology sites**
  - 11 sites in Australia
  - 25 sites in USA
- **Children (> 12 years) and adults**
- **Moderate to severe acne patients**
- **Treatment Period 12 weeks**

Endpoints

- **Primary endpoint**
  - Absolute change (by number) from Baseline to Week 12 in inflammatory lesion count
- **Secondary endpoints**
  - Absolute change (by number) from Baseline to Week 12 in non-inflammatory lesion count
  - Change (by percentage) from Baseline to Week 12 in inflammatory and non-inflammatory lesions
  - Proportion of patients with clear/ almost clear and a 2 grade reduction from Baseline IGA at week 12
- **Safety**
  - Adverse events local tolerability

botanix PHARMACEUTICALS

Summary of safety and tolerability data

All doses of BTX 1503 were very safe - there were no serious adverse events or treatment related discontinuations while achieving positive effects on acne lesion reductions

BTX 1503 is very safe

- No 'Serious Adverse Events' reported
- Extremely low incidence of 'Adverse Events'
- Most common Adverse Event was upper respiratory infection (*common cold*) – not related to treatment
- Only 3/368 subjects withdrew due to a treatment related Adverse Events (none of which were in the BTX 1503 5% once-a-day group

	Incidence of Adverse Event (%)					
Adverse Event	**Vehicle QD**	**Vehicle BID**	**Combined Vehicle**	**5% BID BTX 1503**	**5% QD BTX 1503**	**2.5% QD BTX 1503**
Related to Treatment	0%	2.2%	1.1%	3.3%	2.2%	4.4%

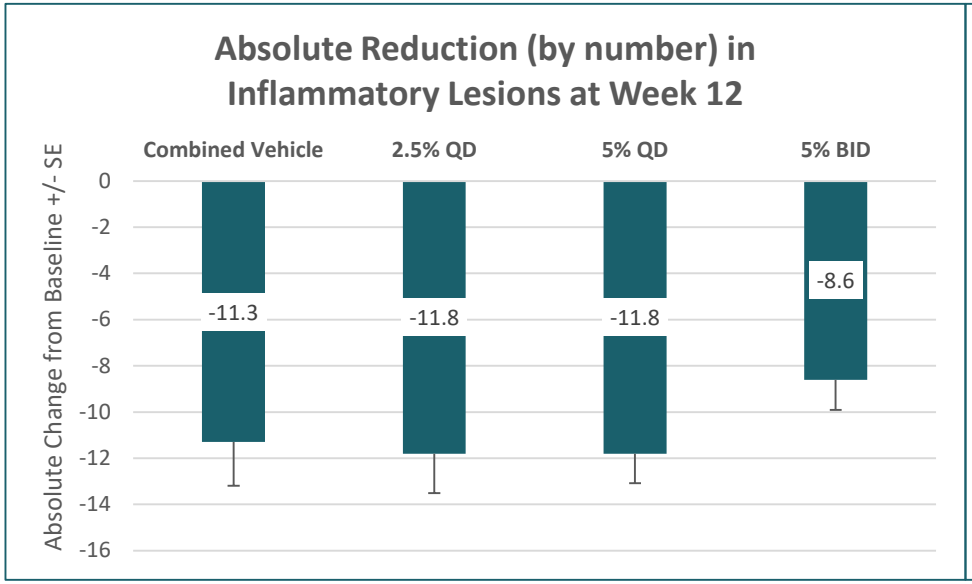
N =368

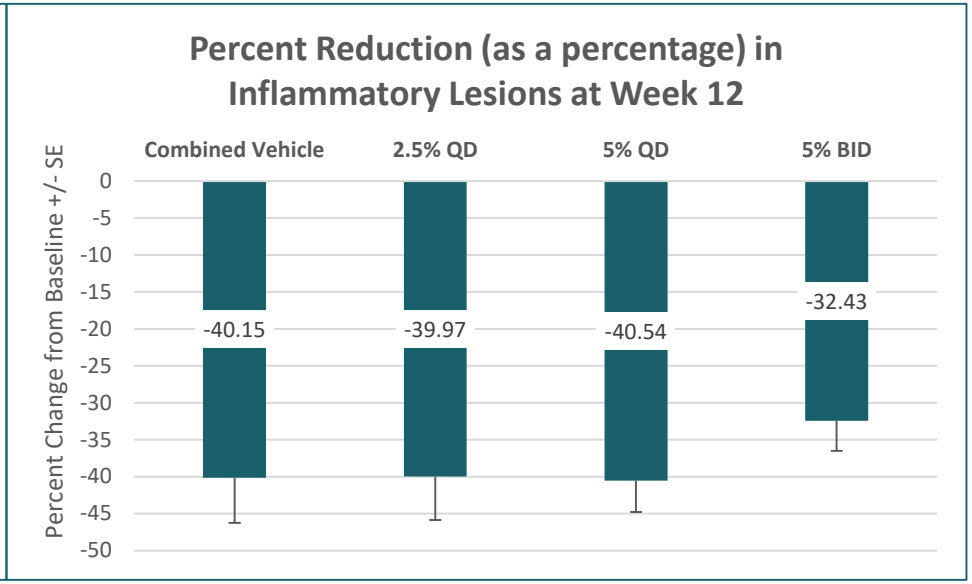
Source – BTX 1503 Phase 2 Study Results released 22 October 2019 – Botanix data on file

botanix PHARMACEUTICALS

Combined (USA and Australia) – Inflammatory Lesions

BTX 1503 5% once-a-day (QD) was the best performing active dose, but statistical significance was not reached for this primary endpoint, due to the very high vehicle response from the USA sites





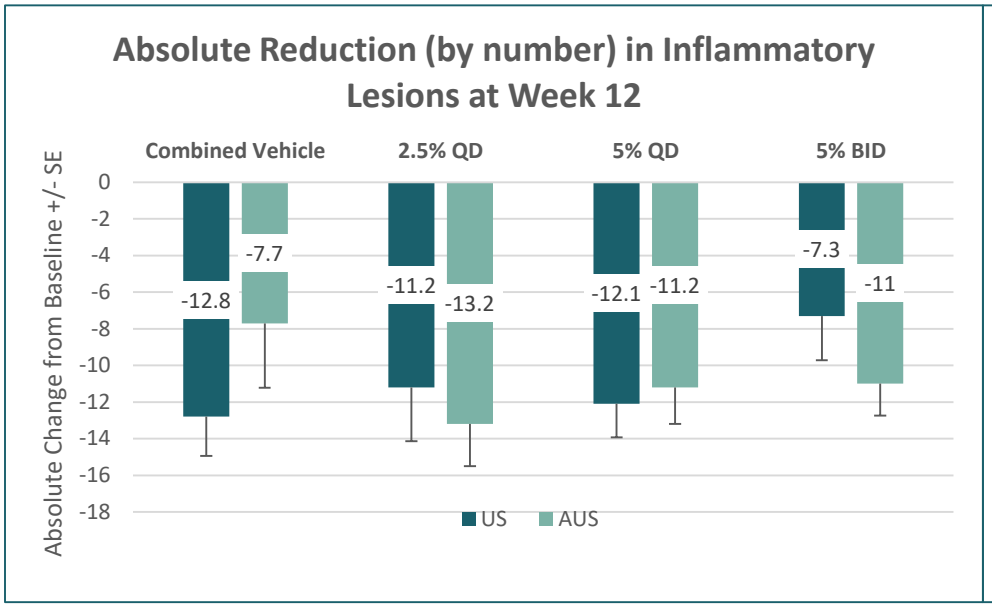
- BTX 1503 effect on inflammatory lesions was in line with target product profile at 12 weeks
- Vehicle response from USA sites was significantly greater than seen in Australia (see next slide for geographic break out)
- Absence of dose response (ie difference between high/low doses) likely reflective of the drug deposition over time in the skin
- Efficacy in line with leading topical acne prescription products

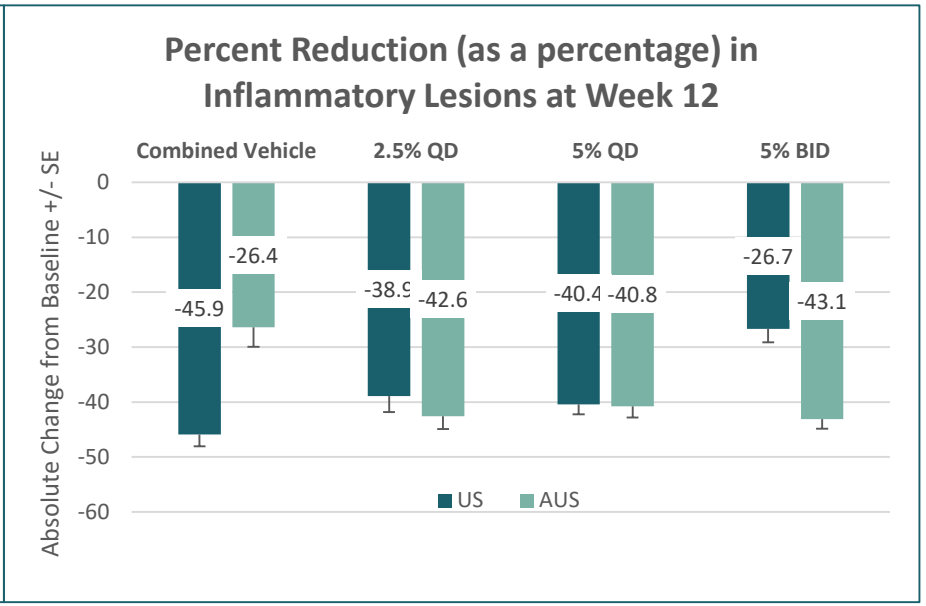
Source – BTX 1503 Phase 2 Study Results released 22 October 2019 – Botanix data on file

botanix PHARMACEUTICALS

Inflammatory Lesions – Australia and USA results separated

Australian data highlights the efficacy and separation expected from vehicle





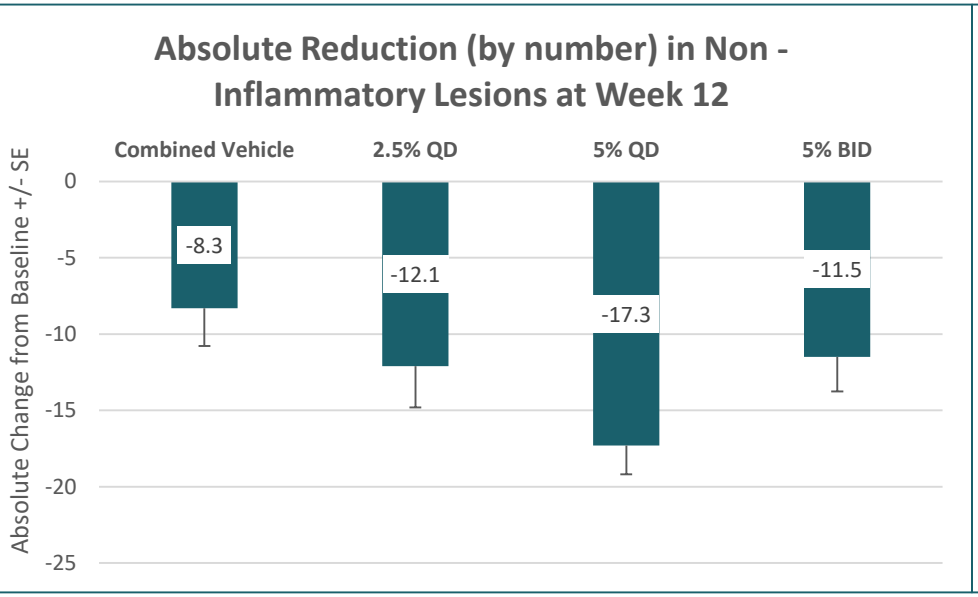
- Australian clinical sites showed statistically significant improvements in reduction in inflammatory lesions - BTX 1503 BID showing a 43.1% reduction ($p<0.05$) with BTX 1503 QD showing a 40.8% reduction
- Vehicle group response in USA was almost twice the response seen in Australia (45.9% vs 26.4%)
- Execution of the study protocol was consistent across geographies and within geographies
- Manufacturing processes and study drug supply was the difference between geographies

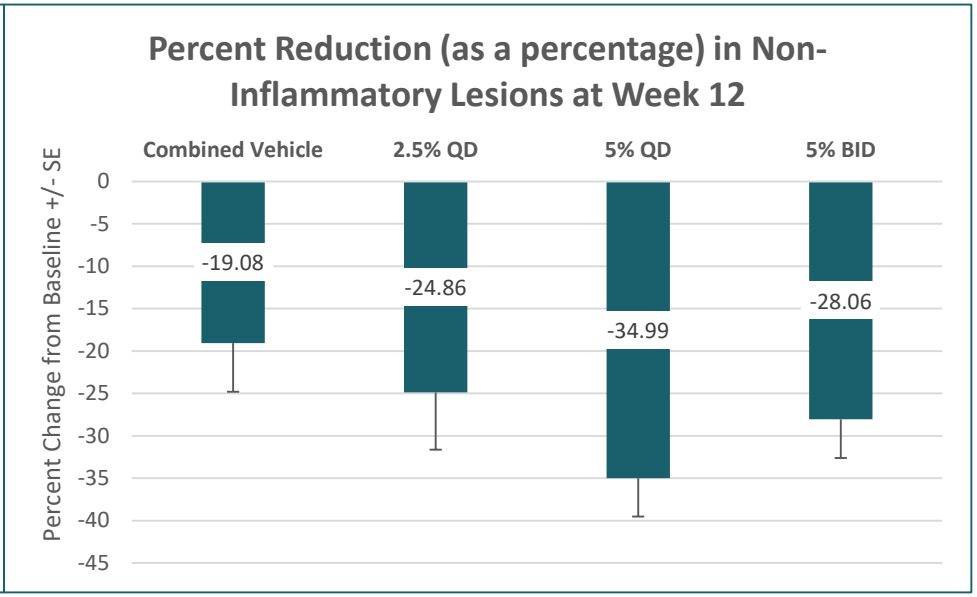
Source – BTX 1503 Phase 2 Study Results released 22 October 2019 – Botanix data on file

botanix PHARMACEUTICALS

Combined (USA and Australia) – Non-inflammatory lesions

BTX 1503 5% once-a-day (QD) achieved statistical significance in reducing non-inflammatory lesions vs vehicle for this secondary endpoint





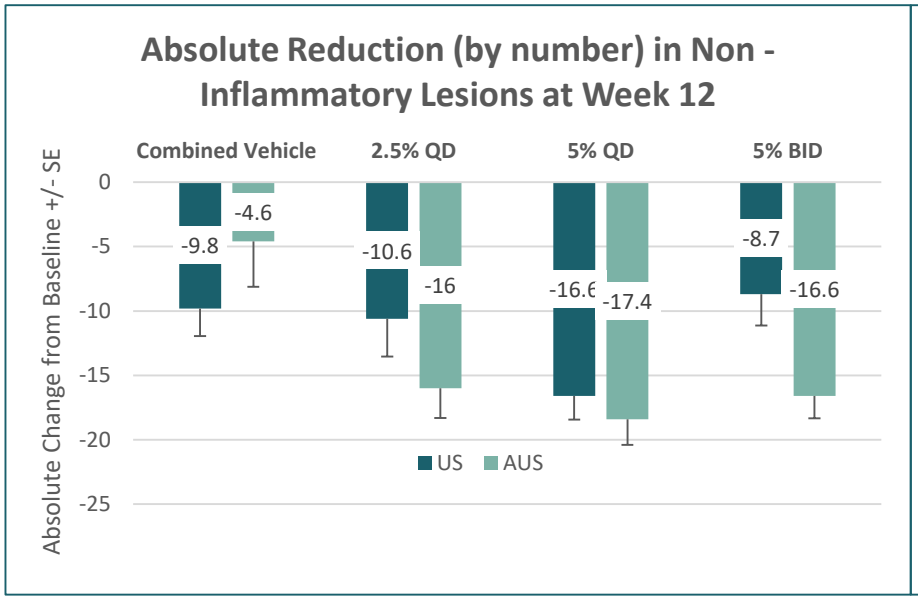
- BTX 1503 5% once-a-day (QD) showed a 34.99% reduction in non-inflammatory lesions vs vehicle at 19.08% (p=0.007)
- Vehicle response from USA sites was consistently significantly greater than seen in Australia (see next slide for geographic break out)
- Efficacy in line with leading topical acne prescription products

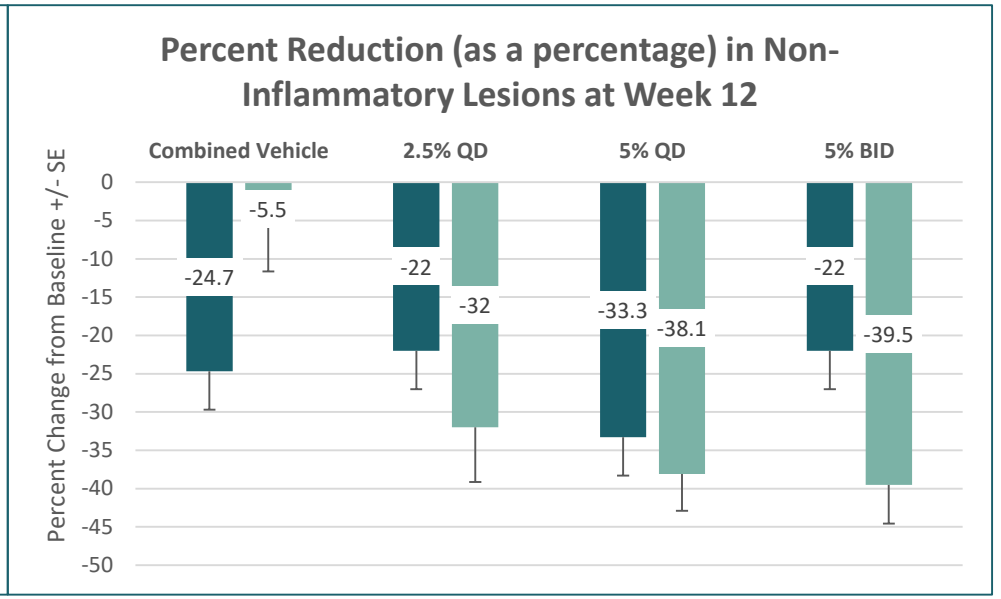
Source – BTX 1503 Phase 2 Study Results released 22 October 2019 – Botanix data on file

botanix PHARMACEUTICALS

Secondary Endpoint – Australia and USA results separated

Australian data is statistically significant across the two endpoints





- All BTX 1503 dose groups in both Australia and the USA reduced the number of non-inflammatory lesions with the BTX 1503 5% once-a-day (QD) group showing a 34.99% reduction vs vehicle (19.08% p=0.007)
- Vehicle group response in USA was almost four times the response seen in Australia (24.7% in the USA vs 5.5% in Australia)

Source – BTX 1503 Phase 2 Study Results released 22 October 2019 – Botanix data on file

botanix PHARMACEUTICALS

High vehicle response in the USA? Manufacturing questions

The vehicle response in the USA was unusually twice to four times higher than that seen in Australia for inflammatory and non-inflammatory lesion reduction measures respectively – manufacturing differences stand out

Question	Answer
Was all of the material used in the Phase 2 study made at one place?	No – because of DEA regulations around manufacturing and transporting CBD – the drug substance needed to be made separately in the USA and Australia and could not be exported/imported
How many batches of study materials were made?	11
Why were so many batches of study materials made?	When manufacturing for Phase 2 was commenced in early 2018, the CBD suppliers and facilities were not at commercial scale so multiple batches had to be made to meet study supply requirements
Were there any differences in manufacturing processes between the two countries?	Yes – while the Australian manufacturing site had prior experience with manufacturing CBD products for Botanix (and other clinical trials), this was a first for the US manufacturer. As a result, scale, equipment and conditions differed
Are these formulation and batch numbers the same in the BTX 1204 atopic dermatitis study?	No – the formulation is different, the amount of drug in the active arm is different and the CBD supply and manufacturing batch size had been scaled up by the time BTX 1204 was manufactured

Source – BTX 1503 Phase 2 Study Results released 22 October 2019 – Botanix data on file

botanix PHARMACEUTICALS

Manufacturing process evolution

Optimisation of the manufacturing scale, emergence of commercial suppliers of synthetic cannabidiol and DEA licensing changes over the last 2 years has supported improvements in the process

Newly announced supply agreement with world's largest and most experienced synthetic cannabidiol manufacturer – Purisys®

Proprietary Permetrex™ precursor blend now manufactured in bulk by global specialty chemicals company with presence in 70 countries

Manufacturing process scaled up and consistency of equipment and processes simplified

Manufacturing of BTX 1204 Phase 2 atopic dermatitis clinical study materials and planned Phase 3 clinical studies reflects improvement in processes and scale

Source – BTX 1503 Phase 2 Study Results released 22 October 2019 – Botanix data on file

botanix PHARMACEUTICALS

Key takeaways and next steps

Strength and statistical significance of Australian data combined with the overall efficacy and safety from Phase 2 Study provide confidence to proceed with preparation for Phase 3 clinical studies

Outcomes support and expand on Phase 1b results

- Australian data shows strong separation from vehicle and excellent safety profile
- Non-inflammatory lesion reduction performance exceeds expectations across geographies

Phase 2 reflects Phase 3 study design

- Study included Phase 3-like population with approximately half of patients under 18 years old
- Endpoints mirror those required in Phase 3 studies for approval

Safety and efficacy data with once a day dose reflects commercial target product profile

- Exceptionally clean safety profile positions BTX 1503 on top of comparative products
- Efficacy in inflammatory and non-inflammatory lesion reduction in line with target profile

End of Phase 2 study with FDA to be scheduled alongside preparation for Phase 3 clinical studies

Source – BTX 1503 Phase 2 Study Results released 22 October 2019 – Botanix data on file

botanix PHARMACEUTICALS

BTX 1503: Glossary of terms

Term	Meaning
BTX 1503	The synthetic cannabidiol drug product tested in the Phase 2 study in 3 different doses – 5% twice a day, 5% once a day and 2.5% once a day
Vehicle or Combined Vehicle	The formulation *without* synthetic cannabidiol – there were 2 vehicle groups, at once a day and twice a day, to reflect the BTX 1503 different dosing regimes (together the 'combined vehicle')
QD	*quaque die* (Latin for 'once a day')
BID	*Bis in die* (Latin for 'twice a day')
Inflammatory lesions	Inflammatory acne lesions red and often painful comprising small red bumps (papules), pustules, large red bumps (nodules) and pseudocysts (these are fluctuant nodules)
Non-inflammatory lesions	Comedones or pimples that have not yet broken through the skin and are not yet inflamed.
IGA	Investigator's Global Assessment of acne severity. A 5 point scale (from 0-4) designated as grades 0=Clear, 1=Almost Clear, 2=Mild, 3=Moderate and 4=Severe. A 2 point change is the standard measurement used and expressed as a percentage of patients that achieved that change
Intent to Treat (ITT)	FDA recommended approach to analyzing data from a clinical trial where all treated patients are included in the analysis regardless of the treatment they received and whether they withdrew early or whether they actually finished the study
Statistically significant	Measurement of whether a result or outcome can be attributed to chance. The smaller the number of patients in a cohort, generally the harder it is to reach statistical significance even with clear separation from vehicle