botanix

PHARMACEUTICALS

Investor Presentation

October 2021



Botanix Pharmaceuticals: a leader in topical drug development

Clinical stage dermatology company developing new treatments for common skin diseases and infection, leveraging its novel delivery technology Permetrex ™



Pharmaceutical focus

Leveraging novel skin delivery technology (Permetrex™) and novel drug mechanisms of action, including synthetic cannabidiol (CBD)



Topically driven

Targeting key dermatology and antimicrobial indications with topical treatments that are safe, well tolerated and validated by clinical efficacy



Significant markets

Pipeline targeting multi-billion dollar markets with no new products approved by FDA in decades for these indications, with physician and patient demand for new treatments



World-class team

World-class and experienced team with significant dermatology and antimicrobial drug track record and development expertise



Near-term catalysts

Multiple upcoming catalysts including completion of Phase 1b/2 rosacea study, commencement Phase 2 antimicrobial study, canine AD data readout and new Permetrex™ opportunities

Botanix: World Class Board and Management team

Board of Directors



Vince Ippolito

President and Executive Chairman

- COO of Anacor and Medicis with 17 years at Novartis
- More than 30 years experience in pharma with 20+ years within dermatology



Matt Callahan
Executive Director

- Serial founder and ex-investment director of two venture capital firms in life sciences
- Developed four products through FDA approval and launch



Dr Bill BoschExecutive Director

- 20+ years experience in pharma industry
- Co-inventor of SoluMatrix™ drug delivery technology and NanoCrystal® Technology



Dr Stewart WasherDirector

- Currently a board member of Orthocell, Cynata Therapeutics and Emyria
- 20+ years of experience in medical tech, biotech and agrifood

Executive
Management
& Advisers



Dr Clarence Young

Chief Medical Officer

- Recently Chief Medical Officer at Velicept Therapeutics
- Senior leadership roles at Iroko Pharmaceuticals, Novartis and GlaxoSmithKline

Anthony Robinson

VP of Development

- Recently Vice President at Advicenne
- Senior leadership roles at Aquestive Therapeutics, Intrommune and Shire Pharmaceuticals

Lynda Berne

Head of Commercial

- Founder of BAL Pharma Consulting
- 13 years senior leadership roles in pharmaceuticals industry

Dr Jack Hoblitzell

SVP Pharmaceutical Development

- 30+ years leading world-class technical operations to manufacture and deliver pharmaceuticals
- Senior leadership roles at Assertio Therapeutics, Pfizer, King, Ivax and Teva

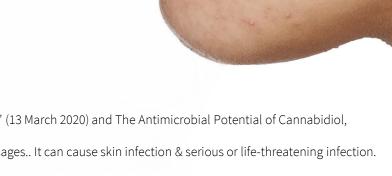
Dr Ira Lawrence

Advisor

❖ 30+ years of senior level leadership experience within the global pharmaceutical and medical device industries Synthetic cannabinoids are well suited to treat skin diseases and infections

Botanix's studies show synthetic CBD to:1

- ✓ Be safe and well tolerated
- ✓ Have broad anti-inflammatory properties
- Have a strong and consistent impact on skin lesions
- Have anti-microbial properties kills Staph aureus²
- ✓ Have potential for widespread use across human and animal health
 - Have anti-inflammatory and anti-microbial properties important for dermatology conditions including acne, rosacea and dermatitis



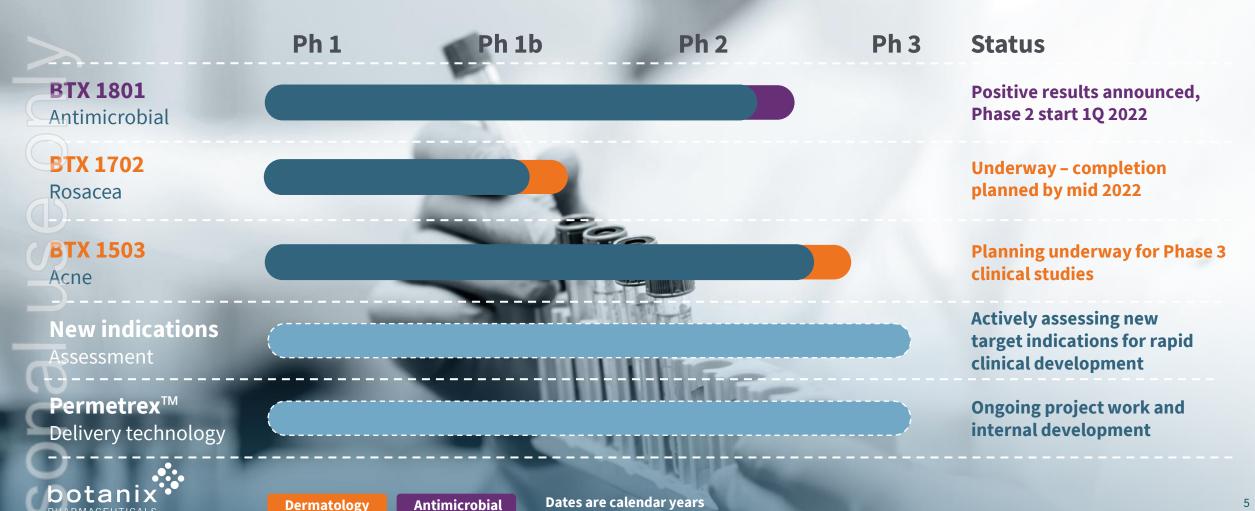
Pharmaceutical focused



1. See ASX announcement "Antimicrobial Platform Update and Launch of BTX 1801 Study" (13 March 2020) and The Antimicrobial Potential of Cannabidiol, Communications Biology 4, Article number: 7 (2021) Blaskovich, M et al

Staphylococus aureus (S. Aureus) is a common bacterium that lives on skin & nasal passages.. It can cause skin infection & serious or life-threatening infection.

Advanced late-stage pipeline



PermetrexTM: skin delivery technology fuels pipeline potential

Unique in delivering high doses of drug into the layers of the skin without using permeation enhancers, preservatives, or irritating levels of alcohol / petroleum derivatives

1. Initial application

Target drug is incorporated in Permetrex™
formulation which spreads easily over
skin surface



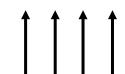
Dermis

2. Evaporation of solvent

Volatile majority of formulation evaporates

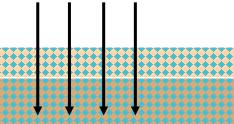
– leaving a minority of highly concentrated

drug solution on the skin surface



3. Delivery into the skin

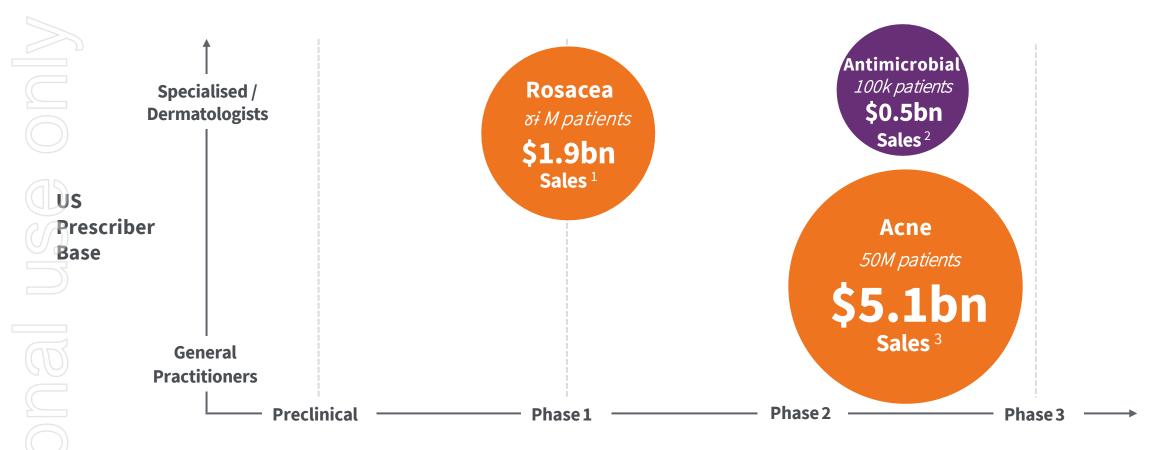
Rapid change in concentration of drug as result of evaporation, drives drug into the skin and is designed not to leave excess excipients on the surface



Permetrex™ is used in Botanix's pipeline products and improves delivery for other drugs in development¹



Target markets with significant annual revenues & unmet needs





^{1.} Grandview Research. www.Grandview research.com

^{2.} Using GSK Bactroban Nasal Pricing/BTX 1801 pricing to be developed following analyses of potential impact on healthcare system; assumes 5% YOY pricing following product approval/launch

^{3.} Symphony Health Solutions, METYS, data ending December 2019 – weighted

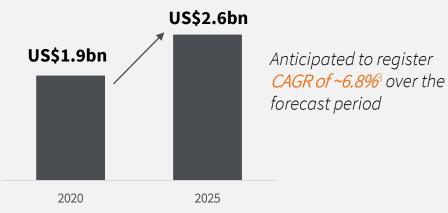




BTX 1702: high impact of rosacea on patients and significant market opportunity

- ❖ Papulopustular rosacea is a highly visible chronic skin disease characterised by redness (inflammation) and acne-like-break-outs¹
- ❖ Patients diagnosed with Rosacea tend to have higher incidences² of:
 - Depression
 - Social anxiety
 - Embarrassment
 - Decreased quality of life

A rapidly growing market: Rosacea market projected to grow to US\$2.6bn by 2025³



- Affects ~5.5% of the global population⁴, ~430m individuals, women are more likely to be affected than men
- ❖ 85% of patients are > 30 years old⁵
- ❖ Currently over 16m Americans affected⁶ by rosacea, with ~5m medical treatment prescriptions⁷ in the US alone
- ❖ Active treatment seekers looking for new solution to rosacea



BTX 1702: Rosacea Phase 1b/2 study is underway

Improved data capture design with dose ranging over 8 week treatment period

- Study designed to enable increased data capture & provide insights to support broader dermatology program
- All sites using Canfield imaging technology supporting clinical assessment, tracking & analysis
- Recruitment going to plan, despite COVID restrictions



❖ Four dose groups, ~120 patients:

- BTX 1702 high dose twice daily: 40 patients
- BTX 1702 low dose twice daily: 40 patients
- Vehicle twice daily: 40 patients
- ❖ Sites: ~15 dermatology sites across Australia and NZ
- ❖ Patients: adults (18+ years) with moderate to severe papulopustular rosacea
- **Treatment period:** 8 weeks

Endpoints:

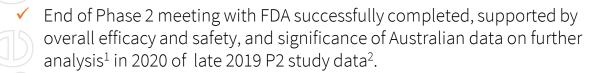
- Safety and tolerability
- Change in inflammatory lesion counts from baseline at days 15, 29 and 57
- Proportion of patients with Investigator's Global Assessment (IGA) treatment success
- Change in Clinician's Erythema
 Assessment (CEA) scale
- Imaging and patient reported outcomes

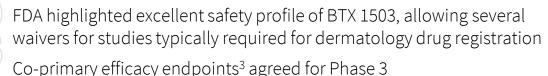


BTX 1503: Acne in preparation for Phase 3 and future filing

Successful End-of-Phase 2 FDA meeting and completion of Rosacea BTX 1702 study (with higher dosing and enhanced data capture) will inform final design for P3 Acne study

Study update +





Important milestone providing clarification on activity to move forward

Confirmed drug development plan to support filing and registration for treatment of moderate and severe acne

Planning underway for Phase 3 clinical studies to be informed by completion of BTX 1702 Phase 1b/2 study



1. ASX 4 Mar 2020, Additional BTX 1503 data analysis 2. ASX 22 Oct 2019 BTX 1503 data and progression to Phase 3 3. Co-primary efficacy endpoints: (1) Absolute change from baseline in inflammatory and absolute change from baseline in non-inflammatory lesion at Week 12; (2) Proportion of patients with an Investigators Global Assessment (IGA) of "clear" or "almost clear" and at least a 2-grade improvement in IGA from baseline at Week 12

Sizable acne prescription market



22m total prescriptions in 2019 growing ~5% year-on-year 4



US\$5.1bn in sales in 2019 ⁴



>2m p.a. active, diagnosed acne patients under HCP care ⁵



~40m to ~50m acne sufferers 6 (~10m mod-to-severe)



60% of acne patients are managed by 5,000 HCPs ⁷

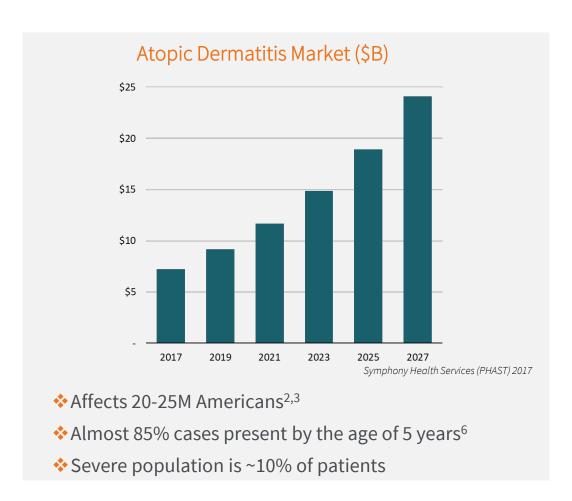
4. Symphony Health Solutions, METYS, data ending December 2019 – weighted; 5. Symphony Health Solutions, MAT, ending April 2019; 6. AAD. Acne Stats and Facts. https://www.aad.org/media/stats-numbers; 7. Symphony Health Solutions, IDV Vantage, February 2019

HCPs:: Healthcare Professionals

BTX 1204A: Meeting need for safe, non-steroid for chronic use in Atopic Dermatitis



- ❖Atopic dermatitis is one of the most common skin diseases¹:
 - 2% 3% of adults, 25% of children
 - 90% of patients are mild to moderate³
- ❖ Patients see flare-ups of itch, red inflamed rash and excessive dryness or scaling
- Significant unmet need with limited options for safe and effective treatment chronic disease, biologics are reserved for severe population
- Pediatric population needs tolerable steroid free alternative¹



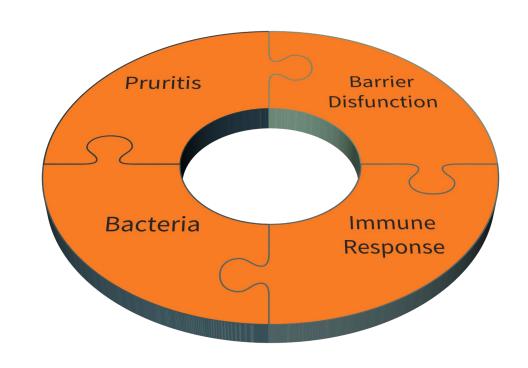


Atopic dermatitis – chronic inflammatory disease for both canines and humans





- Canines naturally and commonly develop a pruritic dermatitis that is clinically and immunologically extremely similar to human AD¹
- ❖ Dogs and humans with AD also have similar problems with skin barrier function – these problems cause the skin to be very dry and prone to Staph Aureus infections²
- Canine models are increasingly used as screening tools for new therapeutic development, including dose ranging and safety assessments
- Canine studies are faster and more cost effective than human studies and help de-risk later stage studies

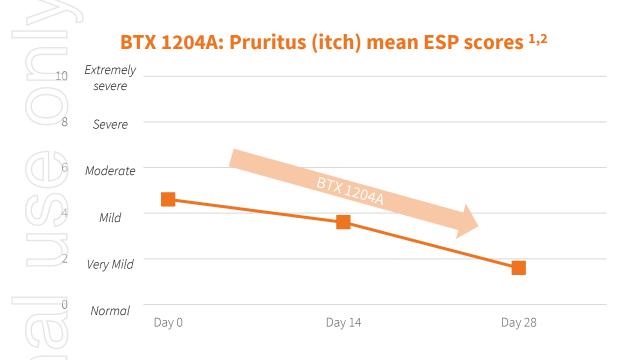




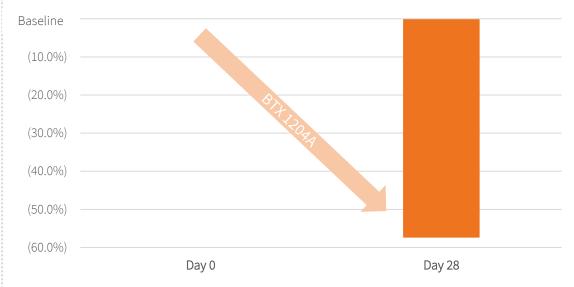
^{2.} Hong et al. Semin Cutan Med Surg. 2011;30(2):71-86

BTX 1204A: Dermatitis data supports further development

Pilot canine study with higher dose and novel Permatrex™ formulation showed reduction itch and lesions - dermatitis in canines and humans is clinically and immunologically very similar







BTX 1204A showed decrease in pruritus over a 28 day period, resulting in average pruritus rating of Very Mild (post-treatment)

BTX 1204A had positive effect, showing <u>decrease in pruritus over</u> <u>a 28 day period, resulting in a ~57.3% reduction from baseline</u>



- BTX 1204A clinical study data announced 17 May 2021
- 2. EPS: Enhanced Pruritus Score designed to measure the severity of itching in dogs
- 3. CADESI-04: Canine Atopic Dermatitis Extent and Severity Index simplified scale for assessing skin lesions of atopic dermatitis in dogs

BTX 1204A: Atopic dermatitis development strategy

Larger POC canine study underway¹, will inform licensing in animal health & potential re-launch of late-stage P2b clinical program in 2022

Proof of Concept Canine Study Parameters

- Four dose groups, up to 45 dogs:
 - BTX 1204A high dose: 15 dogs
 - BTX 1204A low dose: 15 dogs
 - Vehicle: 15 dogs
- Sites: 3 Australian sites
- Treatment period: Twice daily treatment for 28 days
 - **Endpoints:** Treatment effectiveness using Enhanced Pruritus Score²; Canine Atopic Dermatitis Extent and Severity Scale Index³

Planned pathway to approval Canine Pilot Study Canine POC Study Partnering Opportunity Reductions in itch and Study started in Animal Health severity scale measures Sep 2021 Previous studies Phase 2b Phase 3 Data to date support anti-microbial Human dose ranging Pivotal human studies & anti-inflammatory activity study CY2022 for registration

Successful outcome opens up partnering opportunity & supports progression to Phase 2b human study in atopic dermatitis.



- 1. ASX 29 Sep 2021: Launch of canine atopic dermatitis program
- 2. Enhanced Pruritus Score (EPS): designed to measure the severity of itching in dogs
- 3. Canine Atopic Dermatitis Extent and Severity Index (CADESI-04): simplified scale for assessing skin lesions of atopic dermatitis in dogs





BTX 1801: Demonstrated clinical efficacy vs S. aureus in Phase 2a study



Staphylococcus aureus (S. aureus or 'staph') is a common bacterium that lives on skin and in nasal passages. It can cause skin infection and serious or lifethreatening **blood stream infections**, pneumonia or bone and joint infections.



- Safe and generally well tolerated at doses of active drug up to 20%
- ✓ All 66 participants successfully completed the BTX 1801 study
- ✓ No severe adverse events reported¹



- ✓ Efficacy of ointment and gel formulations demonstrated for primary endpoint at Day 12
- ✓ Eradication rates as high as 76.2% at Day 7, with eradication effects extending through to Day 28, despite no treatment after Day 5



- BTX 1801 Phase 2a Clinical Study BOT data on file
- The incidence of adverse events was low, mild in severity and occurred at similar rates across the different treatment groups with no severe events reported

BTX 1801: Haemodialysis patients with central venous catheters at risk of bloodstream infections





Haemodialysis



Rationale for selection



Significant health risks

- Replicates the functions of the kidneys in patients with kidney failure, by using a machine to filter and clean the blood
- ❖ Infection is a leading cause of death with 20% to 40% of haemodialysis patients eventually dying from an infection¹
- Risks for central venous catheter-related complications were as high as 30% and 38%, at 1 and 2 years respectively²
- Central venous catheter patients (approx. 160,000) make up more than 70% of blood infections in the dialysis population²

11.8%

of patients were readmitted within 12 weeks of hospitalisation related to Staph aureus infections¹

US\$734m

Market for nasal decolonisation of haemodialysis patients at risk of blood stream infection by 2030³

~US\$32k

Mean cost (per episode) of treating Staph aureus blood stream infections, including readmissions and outpatient costs¹

US\$1bn

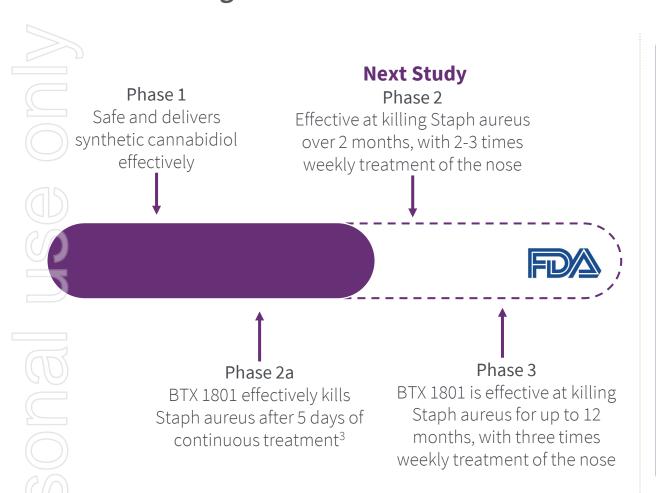
Estimated annual cost of treating bacteraemia in haemodialysis patients with central venous catheters²



- 'Mortality in dialysis patients: analysis of the causes of death', Mailloux LU, Bellucci AG, Wilkes BM, Napolitano B, Mossey RT, Lesser M, Bluestone PA. AJKD. 1991 Sep;18(3):326-35
- 2. 'Complications From Tunneled Hemodialysis Catheters: A Canadian Observational Cohort Study', (2019) Poinen, K. et al AJKD Volume 73 Issue 4 Pages 467-475

BTX 1801: Clinical development moving quickly to meet need

Targeting nasal decolonisation of Staph in patients undergoing haemodialysis to reduce incidence of life threatening blood stream infections



FDA incentives provide accelerated development and increased market exclusivity

QIDP 1 status

- Extra 5 years (total of 8 years) exclusivity from generic competition
- Attractive economic benefits from FDA approval

Fast track status

- Following IND submission, allows increased consultation with FDA
- ❖ De-risks clinical trials and accelerates development pathway

LPAD² status

Allows smaller, fewer and / or shorter clinical trials for FDA approval



Botanix plans to apply for all three programs to accelerate development, reduce clinical costs and increase exclusivity

- QIDP: Qualified Infections Disease Product
- LPAD: Limited Population Pathway for Antimicrobial and Antifungal Drugs
- 3. ASX 3 Feb 2021 BTX 1801 Phase 2a Clinical Study Data, ASX 4 May 2021 Update on BTX 1801 clinical development

Executing on key clinical milestones

- Antimicrobial: BTX 1801 positive Phase 2a study results

 Positive results announced, further Phase 2 study start Q1 2022
- Rosacea: BTX 1702 Phase 1b study start

 Recruitment currently underway, target completion mid 2022
- Acne: BTX 1503 planning for Phase 3 clinical studies

 Pending completion BTX 1702 Phase 1b/2 study
 - Dermatitis: BTX 1204A canine proof of concept study underway

 To inform potential animal health licensing and re-launch Phase 2b human study data anticipated 1H 2022
- New indications and Permetrex™ opportunities

 Actively assessing new indications and opportunities for rapid clinical development





Botanix Pharmaceuticals: a leader in topical drug development

Clinical stage dermatology company developing new treatments for common skin diseases and infection leveraging its novel delivery technology Permetrex ™



Developing novel skin delivery technology (Permetrex[™]) and novel mechanisms of action, including synthetic cannabidiol (CBD)



Late stage pipeline targeting dermatology and antimicrobial indications with topical treatments that are safe, well tolerated & clinically validated



Multi-billion dollar growth markets, with demand for new treatments and unmet needs.



Established IP position and protection



World-class, experienced team with significant track record and development expertise



Executing on pipeline across anti-microbial, rosacea, dermatitis and acne indications. Near term catalysts: Ph1b/2 Rosacea and Ph2 antimicrobial studies, new indications for rapid development



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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.

