UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of Report (Date of earliest event reported)
May 21, 2018

BioXcel Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**001-38410**	**82-1386754**
(State or other jurisdiction of incorporation)	(Commission File Number)	(I. R. S. Employer Identification No.)

780 East Main Street
Branford, CT 06405
(Address of principal executive offices, including ZIP code)

(203) 643-8060
(Registrant's telephone number, including area code)

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company x

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. x

Item 7.01 Regulation FD Disclosure.

BioXcel Therapeutics, Inc. (the "Company") has prepared presentation materials (the "Presentation Materials") that management intends to use from time to time on and after May 21, 2018, in presentations about the Company's operations and performance, including a presentation at the UBS Global Healthcare Conference being held in New York, New York on May 21, 2018. The Presentation Materials are furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information contained in the Presentation Materials is summary information that should be considered within the context of the Company's filings with the Securities and Exchange Commission and other public announcements that the Company may make by press release or otherwise from time

to time. The Presentation Materials speak as of the date of this Current Report on Form 8-K. While the Company may elect to update the Presentation Materials in the future or reflect events and circumstances occurring or existing after the date of this Current Report on Form 8-K, the Company specifically disclaims any obligation to do so.

The information in this Item 7.01 and Exhibit 99.1 of this Current Report on Form 8-K is furnished and shall not be deemed to be "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section. The information in this Item 7.01 and Exhibit 99.1 of this Current Report on Form 8-K shall not be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date of this Current Report, regardless of any general incorporation language in any such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Investor Presentation Materials

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: May 21, 2018

BIOXCEL THERAPEUTICS, INC.

/s/ Richard Steinhart
Richard Steinhart
Chief Financial Officer

Exhibit 99.1


bioxcel
therapeutics
Next Wave of Medicines
BioXcel Therapeutics, 780 East Main Street, Branford, CT 06405 | www.bioxceltherapeutics.com

Safe Harbor Statement

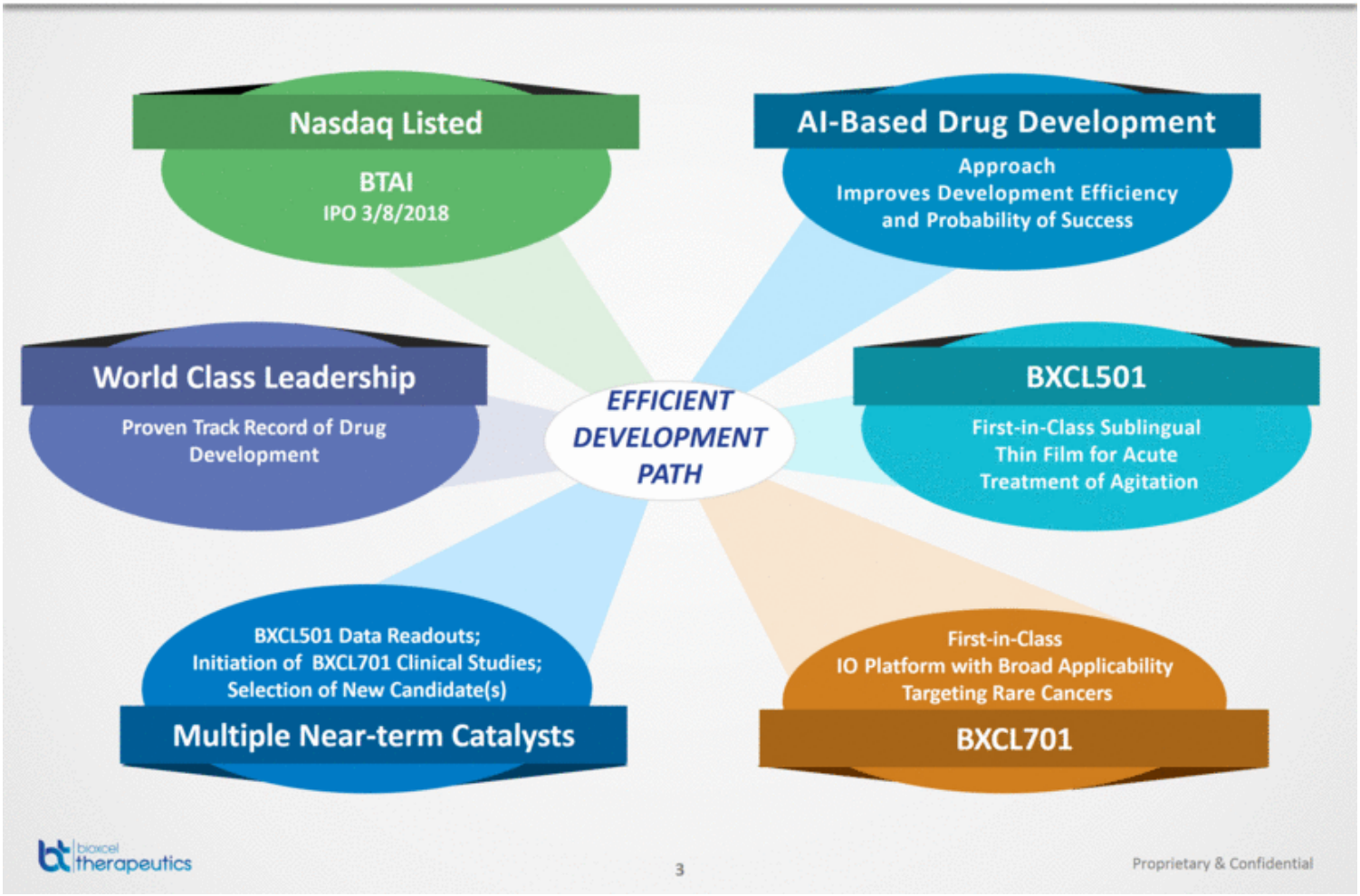
This document may contain forward-looking statements. Such forward-looking statements are characterized by future or conditional verbs such as “may,” “will,” “expect,” “intend,” “anticipate,” believe,” “estimate” and “continue” or similar words. You should read statements that contain these words carefully because they discuss future expectations and plans, which contain projections of future results of operations or financial condition or state other forward-looking information. Such statements are only predictions and our actual results may differ materially from those anticipated in these forward-looking statements.

We believe that it is important to communicate future expectations to investors. However, there may be events in the future that we are not able to accurately predict or control. Factors that may cause such differences include, but are not limited to, the uncertainties associated with our limited operating history, product development, the regulatory approval process of the FDA, the market for our product candidates, the success of BXCL501 and BXCL701, the risks associated with dependence upon key personnel and the need for additional financing. Except as required by law, we do not assume any obligation to update forward-looking statements as circumstances change.

These forward-looking statements are based on certain assumptions and are subject to risks and uncertainties, including those described in the “Risk Factors” section and elsewhere in the Company’s filings with the U.S. Securities and Exchange Commission, which are available at www.sec.gov and https://ir.bioxceltherapeutics.com/all-sec-filings.

BioXcel Therapeutics Investment Highlights

Leveraging the power of artificial intelligence to create the next wave of medicines in neuroscience and immuno-oncology



World-Class Leadership Team Supported By Strong Board of Directors and Advisory Board

Combined experience of 150+ years in drug development with 15 approved drugs

Management Team

Vimal Mehta
CEO & Member of Board

- 25+ years experience of corporate strategy and financing
- Results-driven serial healthcare entrepreneur, investor and advisor

Inpharmatica CuraGen

Frank Yocca
Chief Scientific Officer

- 30+ years of pharma and biotech experience
- VP and Head, AZ; Neuroscience
- Executive Director, BMS

AstraZeneca BMS

Vincent J. O'Neill
Chief Medical Officer

- 15+ years of therapeutic experience
- CMO, Mirna Therapeutics
- VP, Sanofi-Aventis
- Group Director, Genentech
- Clinical Director, GSK

Mirna Sanofi-Aventis

Richard I. Steinhart
Chief Financial Officer

- 25+ years of corporate finance experience
- CFO, Remedy Pharmaceuticals
- SVP & CFO, MELA Sciences

Remedy Pharmaceuticals MELA Sciences

Board of Directors

Peter Mueller
Chairman of Board

- 30+years pharma & biotech experience
- EVP, Global R&D/CSO Vertex
- SVP, R&D Boehringer Ingelheim
- President, R&D/CSO Axcella Health

Vertex Boehringer Ingelheim Axcella

Steve Laumas
Member of Board

- 20+ years of experience in healthcare investments
- CEO, Bearing Circle Capital
- Managing Director, North Sound Capital

Goldman Sachs

Krishnan Nandabalan
Member of Board

- Innovator of AI Platform
- Drug discovery & development and global business development & licensing (Viibryd)

Genaissance CuraGen

Strategic Advisors

Steven Paul
President & CEO, Voyager Therapeutics

- 35+ years of Neuroscience expertise
- Venture Partner, Third Rock Ventures
- CEO, Voyager Therapeutics
- Co-Founder, SAGE Therapeutics
- President, Lilly Research Laboratories

Eli Lilly SAGE Therapeutics Alnylam

Sheila Gujrathi
Member of Board, Five Prime Therapeutics

- 15+ years clinical development experience
- CMO, Receptos
- VP, Immunology, Bristol-Myers Squibb
- Franchise Leader, Genentech

Receptos BMS Genentech

BioXcel Therapeutics' Approach: Drug Re-Innovation

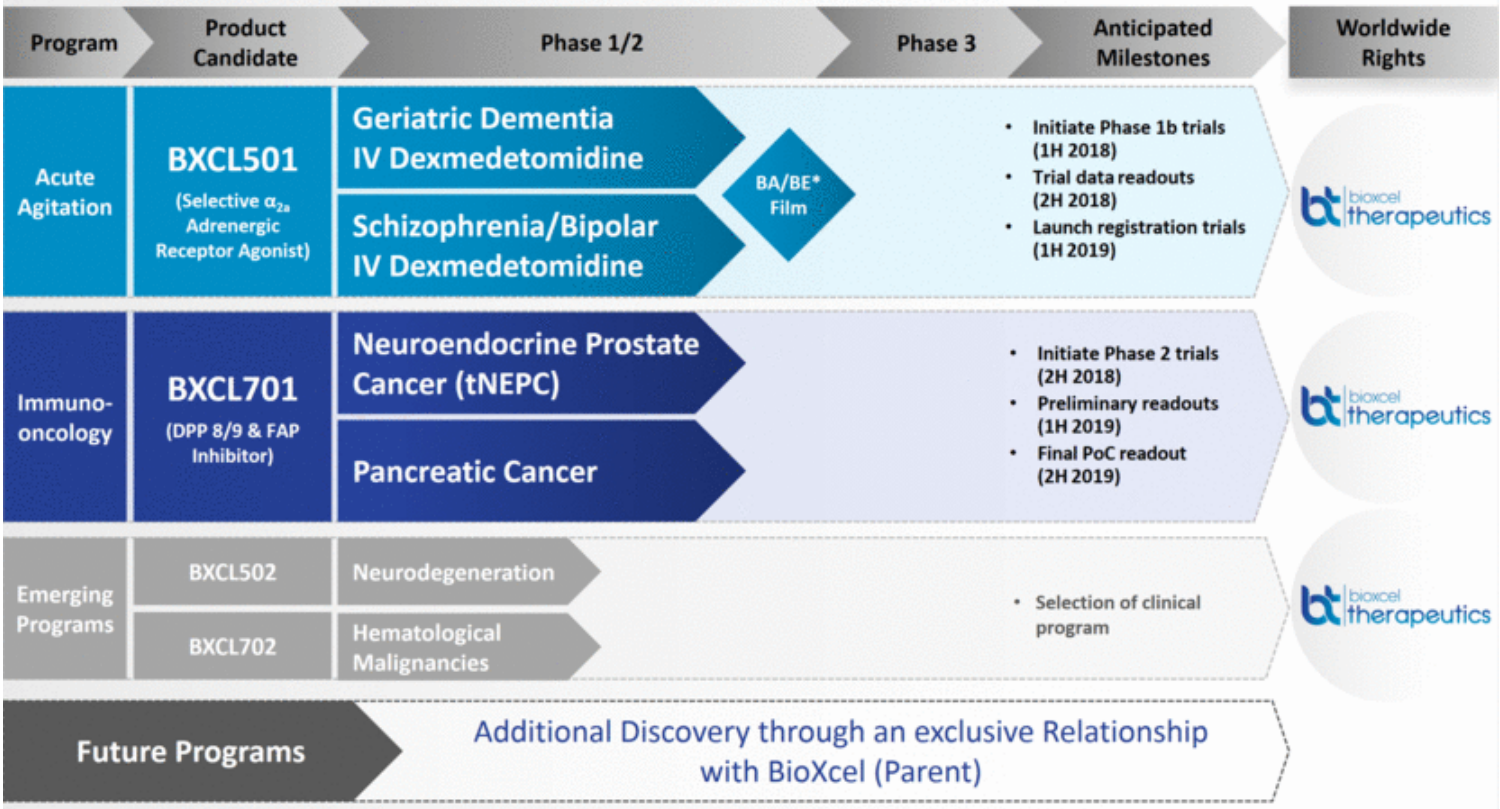
Identification of new therapeutic index utilizing AI-powered R&D engine

Developing the Next Wave of Medicines to Address Major Unmet Medical Needs

- **Large Market Opportunity**
- **Faster Path to Market**
- **Lower Cost of Development**
- **Higher Probability of Success**

BioXcel Therapeutics Pipeline: Rapid Human PoC and Development Path

First-in-class neuroscience and immuno-oncology pipeline with multiple near-term milestones



*Bridging bioavailability/bioequivalence (BA/BE) study for optimizing BXCL501 sublingual thin film dose for phase 3 registration trials

Clinical Programs

BXCL501

BXCL501: Sublingual Thin Film Dexmedetomidine (Dex) for Acute Treatment of Agitation

PRN treatment for mild to moderate agitation

Rapid Clinical Development and Regulatory Approval Path (505(b)(2))

Agitation resulting from Alzheimer's and Schizophrenia / Bipolar disease

- Agitation: a growing **global healthcare issue ($40B+)**
- Existing treatments are suboptimal; invasive with severe **side effects**
- BXCL501: **innovative approach** for acute treatment of agitation
  - *Directly targets a **causal agitation mechanism***
  - ***Rapid onset of action;** easy to administer **sublingual film***
  - ***Established regulatory path (Adasuve)***

BXCL501: A Sublingual Thin Film Dexmedetomidine (Dex)

Precedex® prescribed to millions of patients; extensively studied (over 130 clinical trials)

- Sold as sedative/anesthetic (approved in US as Precedex® 1999)
- Most **selective** alpha2a adrenergic agonist
- Well characterized safety and pharmacokinetic profile
- Produces an "arousable sedation" useful for treating agitation
- Anti-agitation effect demonstrated with IV dose of 0.5µg/kg

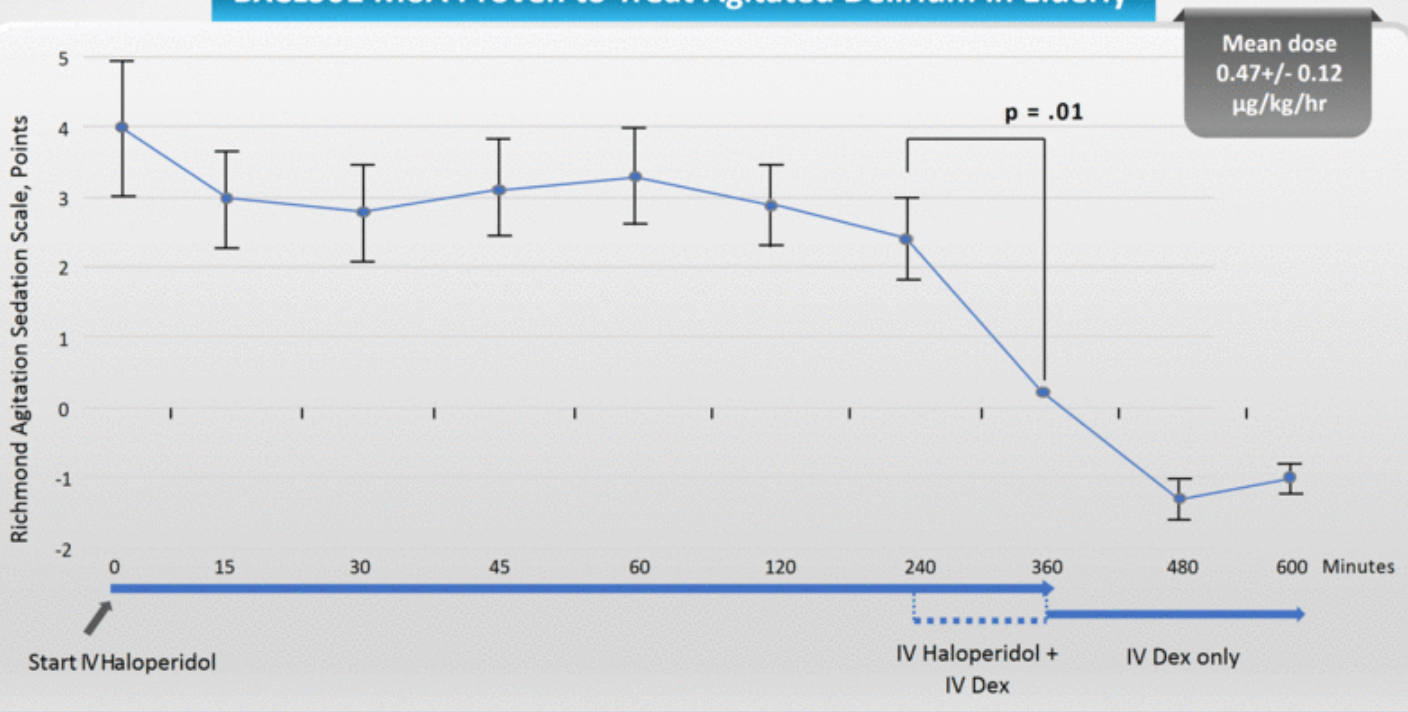
Effective Dose	Sedative Dose	Tolerable Dose
0.5µg/kg	1.6µg/kg	>5µg/kg

Large Therapeutic Index

Acute Agitation Clinical Study Shows Easily Measured Endpoints

Hyperactive delirium patients refractory to haloperidol are difficult to treat

BXCL501 MoA Proven to Treat Agitated Delirium in Elderly

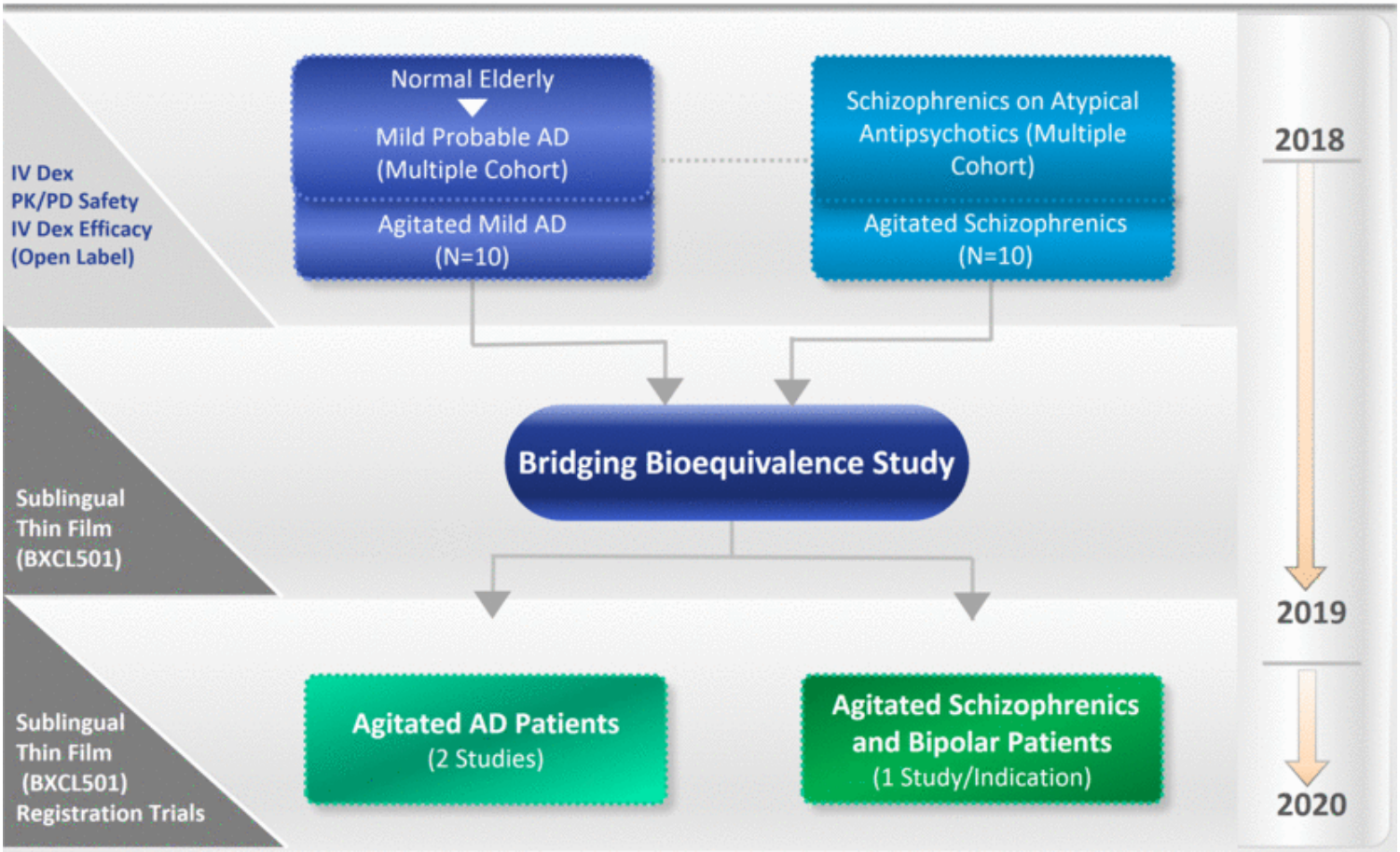


All haloperidol-refractory agitated patients (n=46) were calmed by Dex treatment

Carrasco et.al., Critical Care Medicine: July 2016, Vol 44, Issue 7, pp. 1295-1309

BXCL501 Integrated Clinical Development Plan

Acute agitation studies: short with easily measurable clinical endpoints

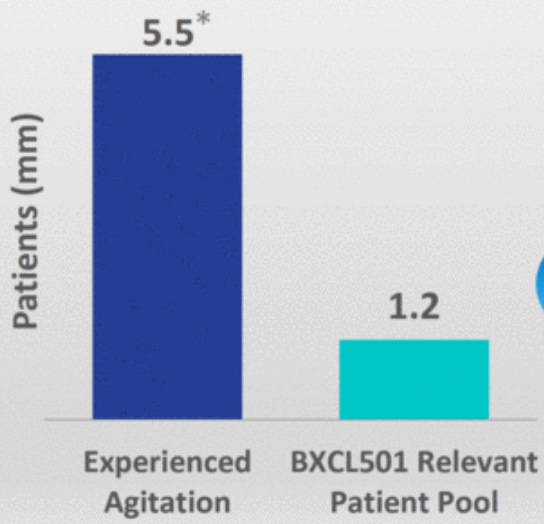


*Clinical Development plan subject to agreement with FDA

Healthcare Costs Associated with Agitation are a Significant Economic Burden

Cost of acute agitation treatment across neuroscience disorders estimated >$40 billion

U.S. Addressable Market for Agitation Treatment



12 – 24 episodes per patient

adasuve®

Reimbursement; $145 per episode at launch

Indication Expansion

- Delirium
- Alcohol Withdrawal DTs
- PTSD/Hyperarousal
- Pre-MRI Anxiety

BXCL501: Rapid Development Path with Large Market Potential

* Alzheimer's and Schizophrenic / Bipolar patients

Clinical Programs

BXCL701

BXCL701: Potential First-in-Class Oral IO Therapy Targeting tNEPC and Pancreatic Cancer

Disruptive immuno-oncology platform with potential to create transformative franchise

Rare Tumors with Large Market Opportunity and Limited Competition

Human PoC in Melanoma with BXCL701 established

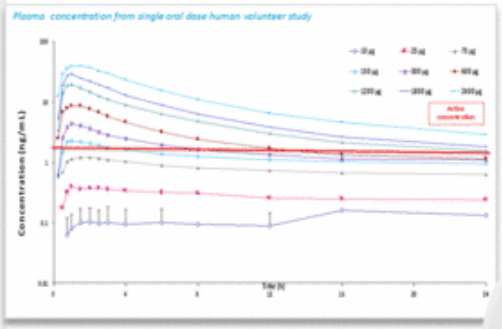
- IO therapy that converts **"cold" (immune resistant) tumors to "hot" (immune permissive)** tumors
- Differentiated mechanism of action inhibits **DPP 8/9 & FAP**, induces **Immune activation** and blocks **Immuno-evasion**
- **Clinical proof of mechanism** and tolerable safety profile from 700 patients
- Potential for **accelerated approval** and **breakthrough therapy designations**
- Offers synergistic benefit in combination with **checkpoint inhibitors and other IO therapies**

(1) http://www.nature.com/nchembio/journal/v13/n1/abs/nchembio.2229.html?foxtrotcallback=true

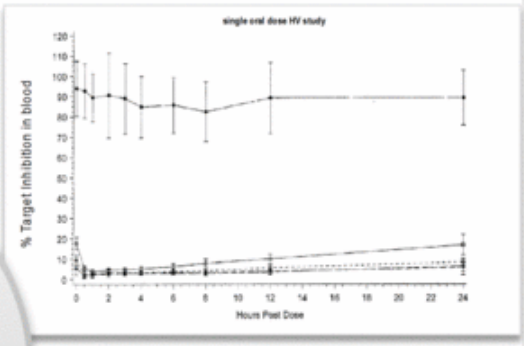
BXCL701: Existing Clinical Evidence Enables Rapid Development Path

Data from >700 patients demonstrate well characterized human PK/Target Inhibition/PD, melanoma, and anti-tumor activity

✓ Dose



✓ Target Inhibition

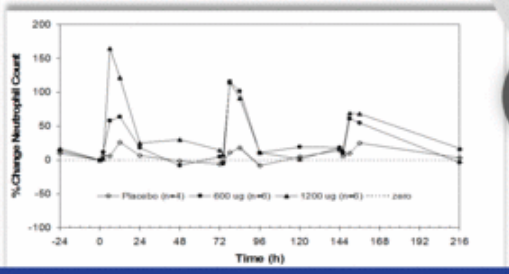


BXCL701 Human Proof of Concept

✓ Single Agent Efficacy

~10% CR/PR with long duration, similar to Yervoy anti-CTL4

More than $75 million investment (Point Therapeutics)



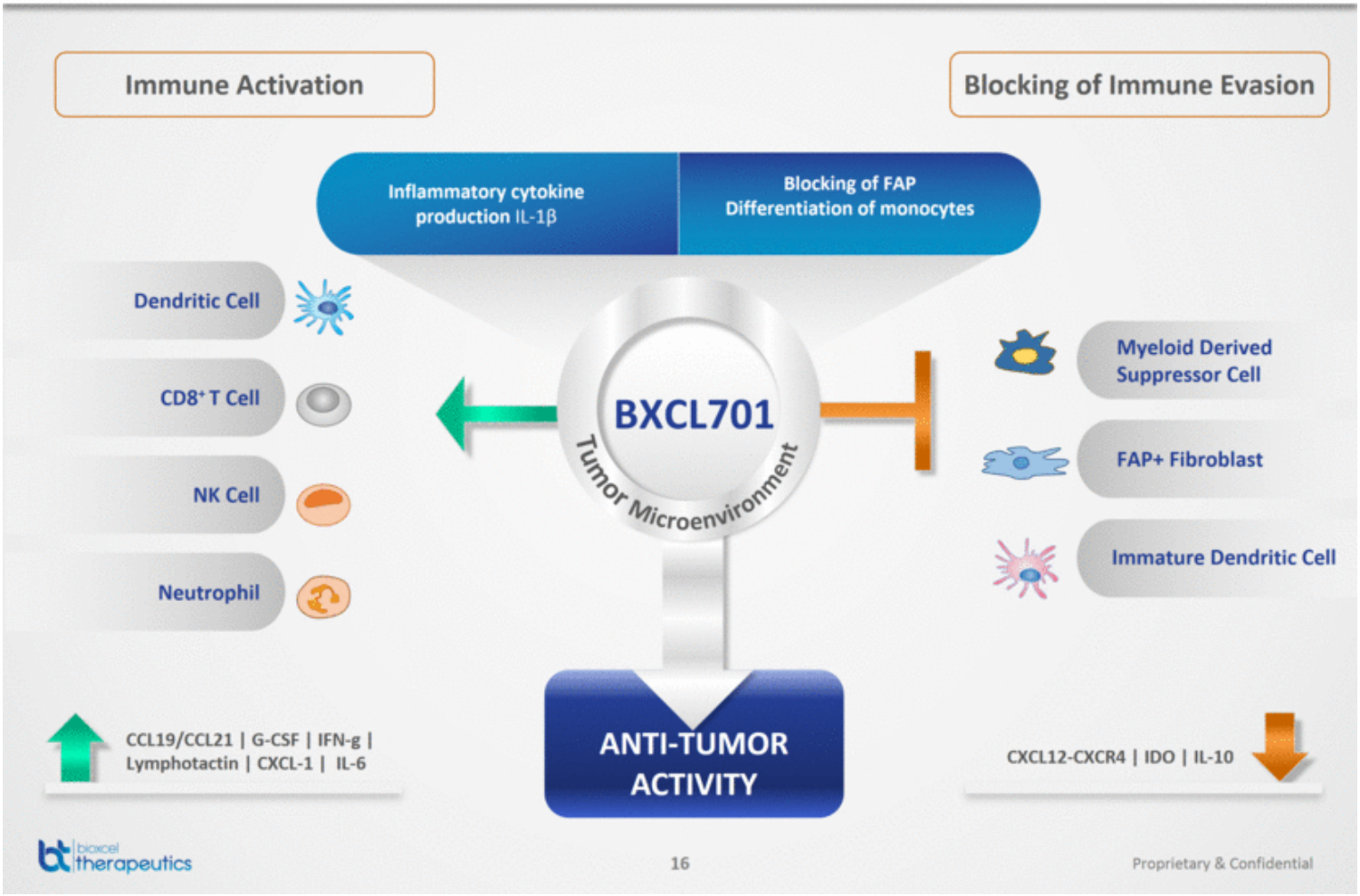
✓ Stimulation Of Immune Cells

----Daily BXCL701 Dose----				
Cytokine[b]	400mg (n=11)	600mg (n=3)	800mg (n=6)	All Talabostat (N=20)
G-CSF	7 (64)	3 (100)	5 (83)	15 (75)
IL-1α	1 (9)	0	0	1 (5)
IL-1ß	5 (46)	2 (67)	5 (83)	12 (60)
IL-2	6 (55)	2 (67)	1 (17)	9 (45)
IL-6	5 (46)	2 (67)	4 (67)	11 (55)
IL-8	5 (46)	3 (100)	2 (33)	10 (50)
IL-10	4 (36)	3 (100)	5 (83)	12 (60)
TNF-α	6 (55)	2 (67)	4 (67)	12 (60)
IFN-α	2 (18)	2 (67)	1 (17)	5 (25)

✓ Induction of Pro-inflammatory Cytokine

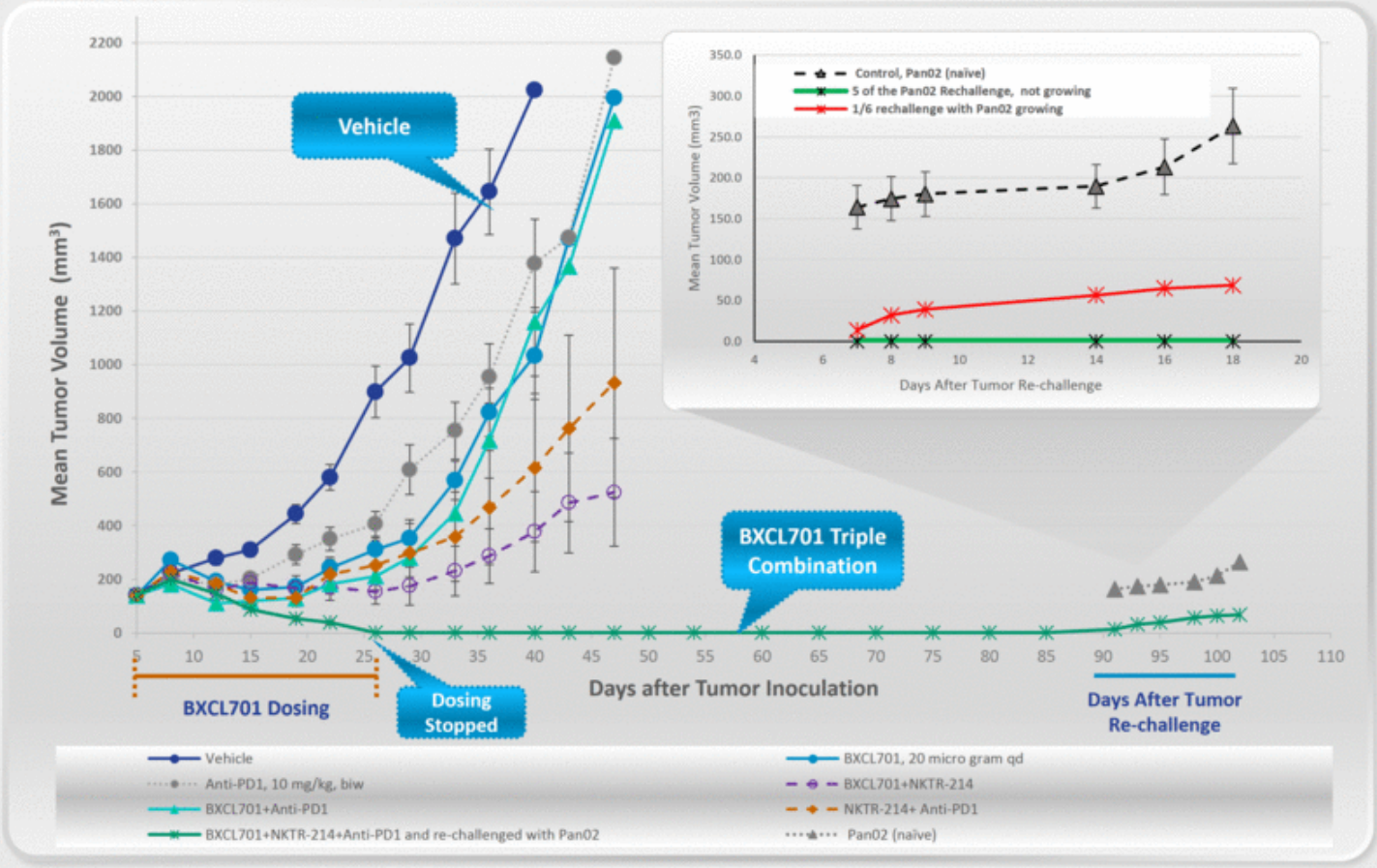
Differentiated MoA Induces Immune Activation and Blocks Immuno-evasion

MoA inhibits DPP 8/9 & FAP and converts tumors from "cold" to "hot"



Triple Combination Achieved Complete Regression and Immunity in Pancreatic Tumors

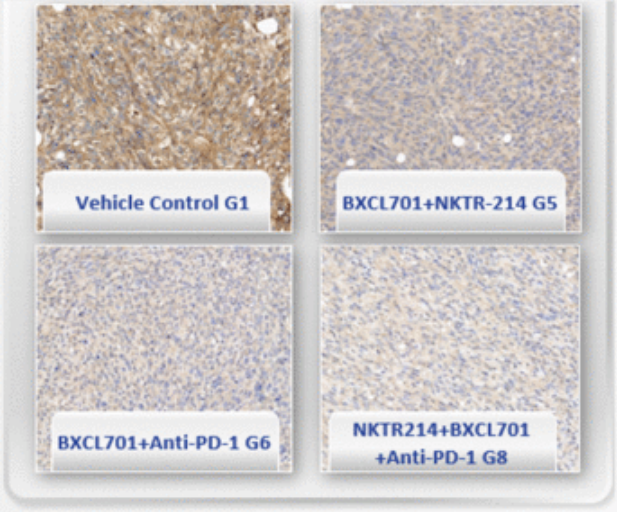
Combo with anti-PD1 and NKTR-214 fully stimulates immune system, "curing" mice, making them resistant to new tumors



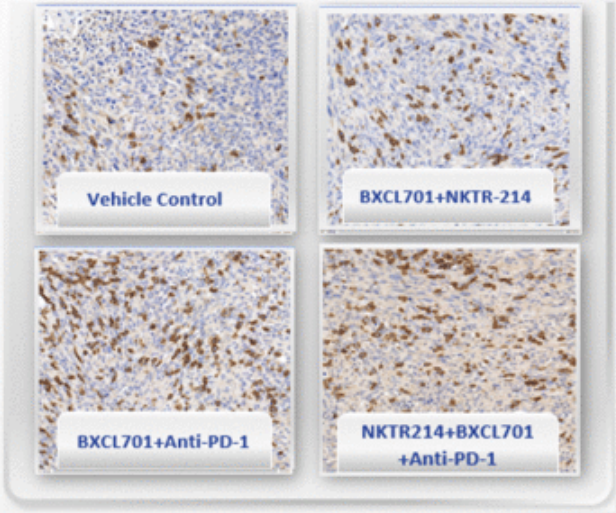
BXCL701+NKTR-214 > +/- anti-PD-1 Show FAP Reduction, with CD8+ Infiltrates

FAP reduction blocks immuno-evasion, neutrophil infiltration shows immuno-activation supported by existing clinical data

BXCL701+NKTR-214 +/- Anti-PD1 Shows decrease in FAP

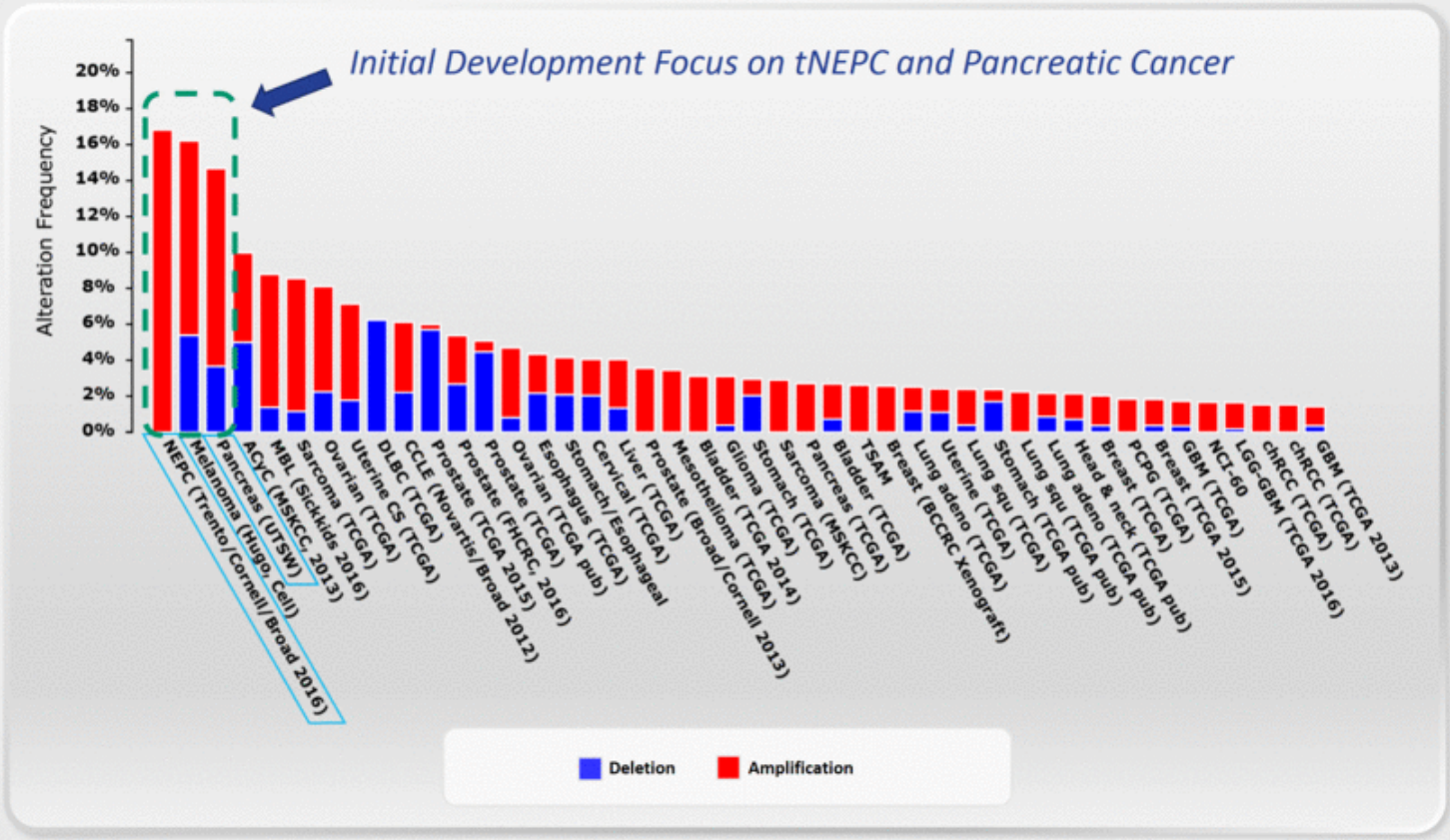


BXCL701+NKTR-214 +/- Anti-PD1 Shows increase in CD8+ lymphocyte Infiltrates



BXCL701: tNEPC and Pancreatic Cancer have Highest Level of DPP8/9 and FAP Expression

Clinical activity in melanoma supported by genetic and functional data



tNEPC Clinical Development Plan: Single Agent and Combination with Anti-PD1

Biomarker driven development, breakthrough and fast track designation potential

Single Agent

Phase 2
Stage 1
(N=15)

→

Phase 2
Stage 2
(N=15)

KEYTRUDA® (pembrolizumab)

Combination with Keytruda

Safety Run-in
Safety/PD/immune-phenotyping
(N=6)

→

Phase 2b Expansion
(N=30)

Global* Pivotal Study

*Expect to commence global development planning (focus on EU and Japan) during Phase 2

Simon 2-stage: 15+15
Primary Endpoint: ORR
Single agent: > 20%
Combination: increase from ~15% (Keytruda single agent) to > 30%
Secondary Endpoint: DoR, PFS, OS
Exploratory Endpoint: Effect on immune cells (MDSC, T-cells, neutrophils)

Emmanuel Antonarakis
Principal Investigator
for Keynote 199
Prostate Cancer

JOHNS HOPKINS MEDICINE

Pancreatic Cancer Clinical Development Plan: Mechanistic and Anti-PD1 Combo Trial

Biomarker driven development in advanced pancreatic cancer, potential breakthrough designation

Neoadjuvant
Proof of Mechanism Trial

→

3 Weeks of BXCL701 Treatment
Before Surgery
Pre and Post Tissue Available
(N=15)

Demonstration of immune cell infiltration/activation to validate MOA

Efficacy Trial in Metastatic Patients after First-line Treatment

→

Combo with Keytruda
Pre and Post Biopsy
(N=30)

Activity

NO → **Stop**

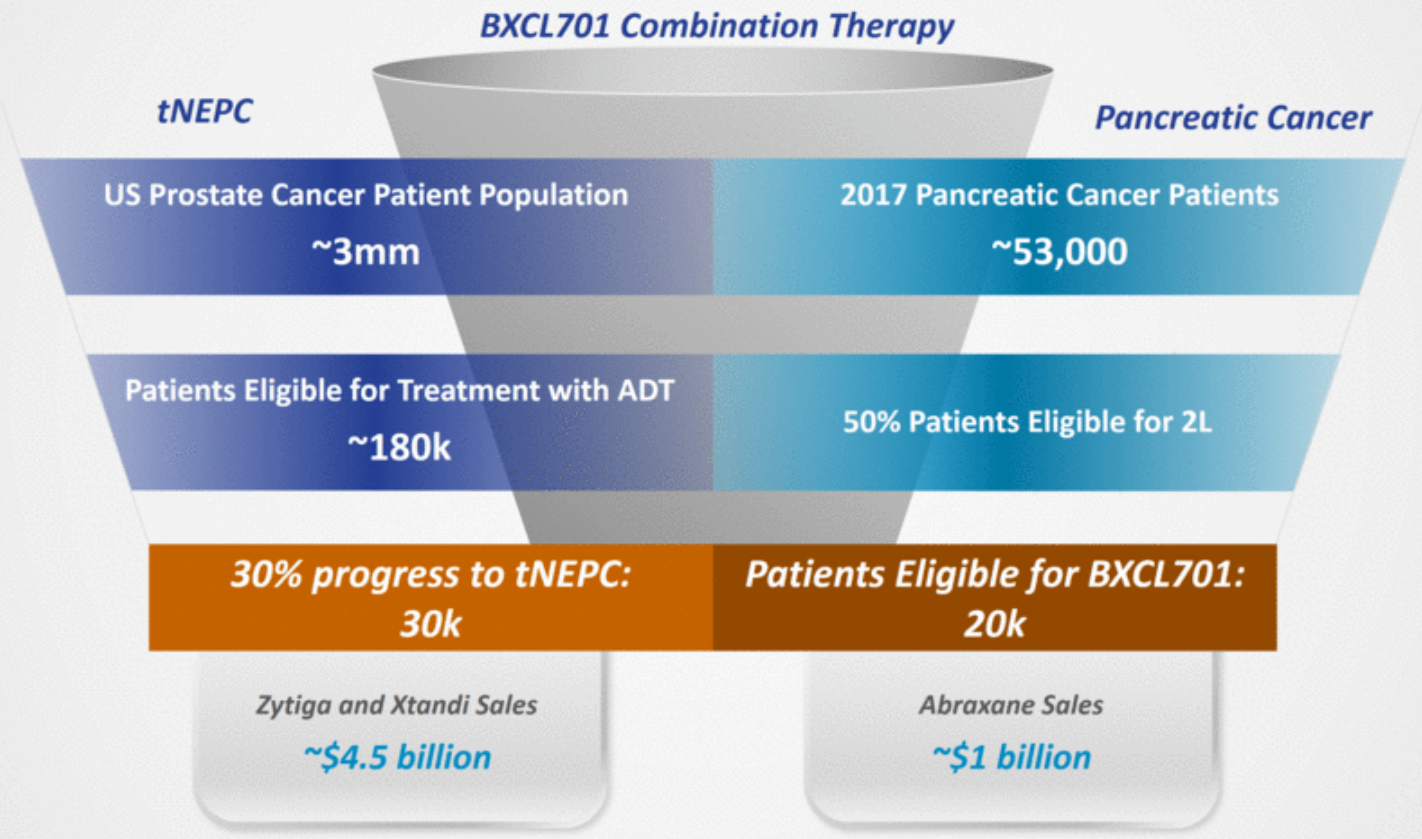
YES → **Global* Pivotal Study**

Simon 2-stage: 15+15
Primary Endpoint: ORR
Single agent: > 20%
Secondary Endpoint: DoR, PFS, OS
Exploratory Endpoint: Effect on immune cells (MDSC, T-cells, neutrophils)

Louis M. Weiner
Director
Georgetown | Lombardi COMPREHENSIVE CANCER CENTER

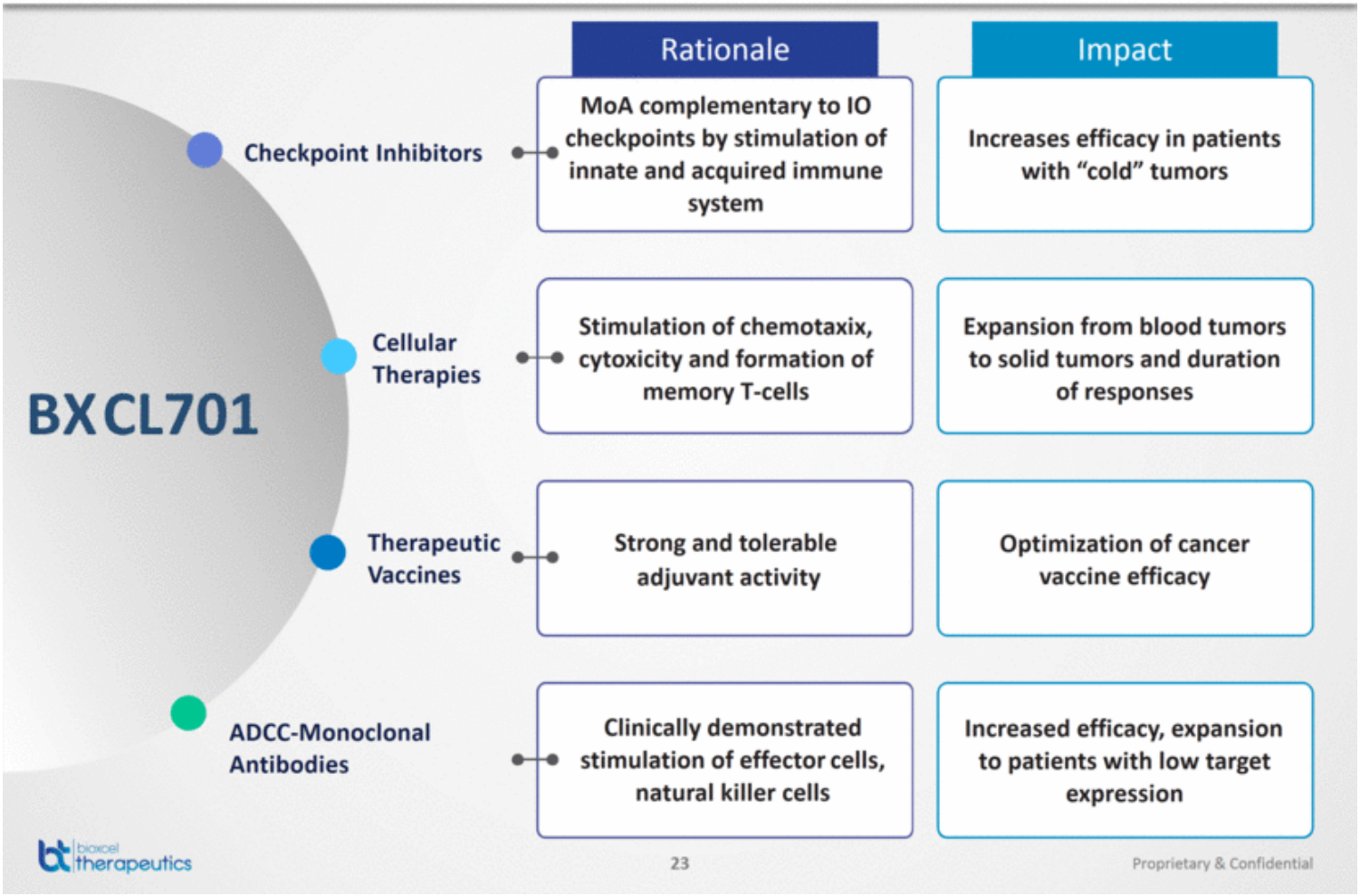
Large Market Opportunity

Limited competition



Offers Pipeline-in-a-Product Platform

Broad potential across multiple IO modalities



Value Creation Opportunity

Key Milestones for Value Creation

Two mid-stage clinical trial candidates

Drug	Indication	1H'18	2H'18	1H'19	2H'19	2020 and Beyond	
BXCL501	Geriatric Dementia	IV Dex Study Ongoing	**IV Dex Data Readout** PK/PD PoC Trial Bio-Equivalence Film Study Initiation	Registration Trial		NDA	
	Schizophrenia / Bipolar Disease	IV Dex Study Planned	**IV Dex Data Readout** PK/PD PoC Trial Bio-Equivalence Film Study Initiation	Registration Trial			
BXCL701	Neuroendocrine Prostate Cancer (tNEPC)		Single Agent & Combo Trial Initiations	**Preliminary Readout**	**Final PoC Readout**	Registration Trial	NDA
	Pancreatic Cancer (PDA)		Neoadjuvant Proof of Mechanism Trial Initiation Combination Trial Initiation	**Mechanistic (MOA) Readout**	**Combination Readout**	Registration Trial	
Emerging Programs	Neuroscience and Immuno-oncology		Selection of Next Candidate(s)				

Optimally Positioned for Execution

Support from world-class investors

MARCH 2018

Completed Initial Public Offering, generating gross proceeds of **$60 million**

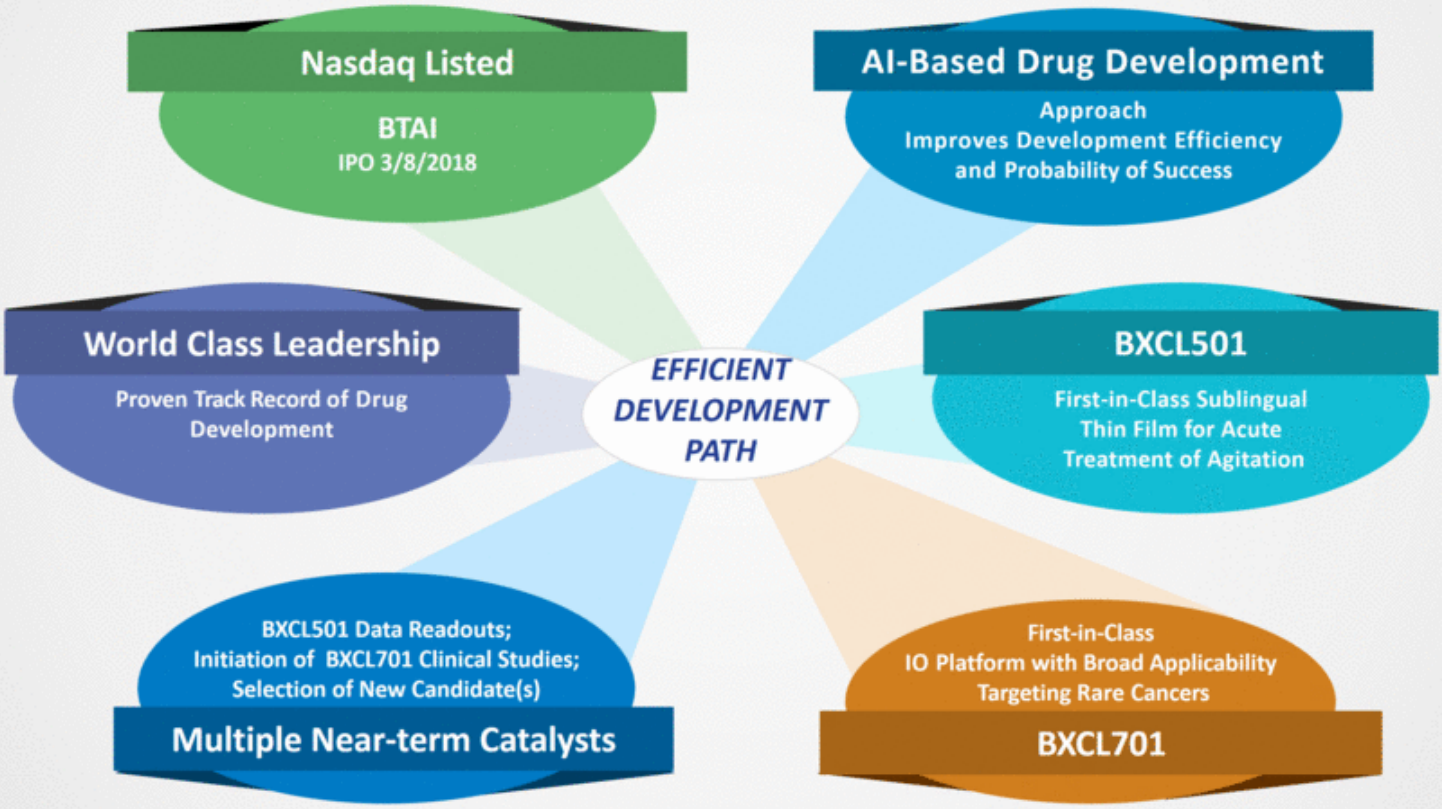
Major shareholders include **Fidelity (10.7%) and Artemis (7.7%)**

Total cash and cash equivalents of **$55.5 million** as of March 31, 2018

Funded to Reach Multiple Inflection Points

BioXcel Therapeutics Investment Highlights

Leveraging the power of artificial intelligence to create the next wave of medicines in neuroscience and immuno-oncology



Dr. Vimal Mehta, CEO

BioXcel Therapeutics, Branford, CT 06405 USA

vmehta@bioxceltherapeutics.com