



Corporate Presentation

November 2020

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Jubilant Therapeutics: Transitioning from preclinical to clinical stage biotech

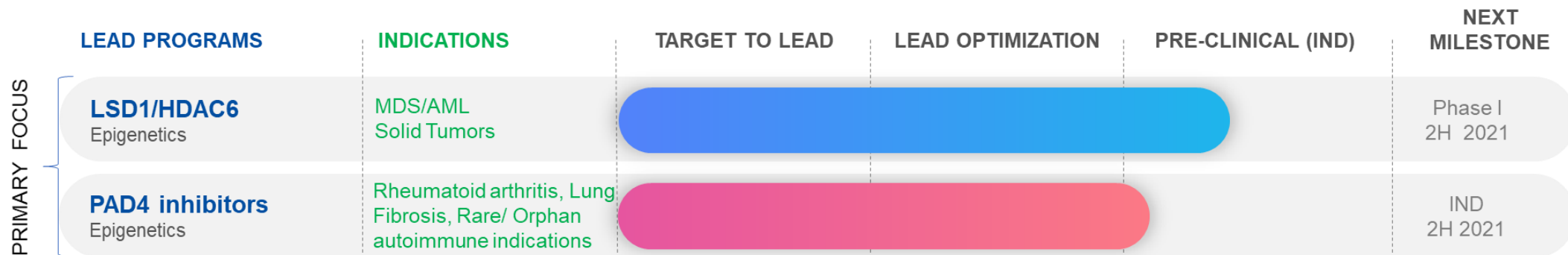
Business Overview

- A patient-centric biopharmaceutical company advancing potent and selective small molecule modulators to address unmet medical needs in oncology and autoimmune diseases
- Launched in 2019 in Bedminster, NJ with discovery labs in India
- Programs incubated in stealth mode for 3+ years prior to company launch

Key Differentiators

- Advanced discovery engine integrates patient derived database, **structure-based design** and computational algorithms; **technology platform validated by Sanofi, Frazier Healthcare Partners and Janssen**
- Novel, precision therapeutics against both first-in-class and validated but intractable targets in genetically-defined patient populations
- Primary programs address hematological malignancies and solid tumors, RA, select rare and orphan autoimmune disorders
- Leadership with large pharma and biotech pedigree, published in top journals, experience in taking drugs to clinic
- 25+ Dedicated team of drug hunters – biologists and chemists with decades of integrated drug discovery expertise
- KOLs and SAB from world class institutions such as **Sloan Kettering, Francis Crick and Dana Farber**
- Dedicated subsidiaries with IPs for lead programs

Pipeline (advancing to clinic in 12-18 months)



- Additional Discovery programs in PDL1 small molecule (cancer, HBV), PRMT5 (Glioblastoma), intractable targets in oncology/transcription factors
- Past programs partnered with Frazier Healthcare Partners, Checkpoint Therapeutics

Leveraging innovation to deliver precision medicines

Innovation is our core

Addressing unmet patient needs (from specific genetic mutations, drug resistance, or compensatory mechanisms) by leveraging our advanced discovery and development engine to deliver precision therapeutics focused on both first-in-class and validated but intractable drug targets.

About Jubilant Therapeutics



Patient-centric biopharmaceutical company advancing potent and selective small molecule medicines to address genetically defined patient populations in **oncology and autoimmune diseases**



Entrepreneurial-minded leadership and scientific teams with global pharma experience in discovering innovative drug candidates and rapidly advancing them to **clinical proof-of-concept**

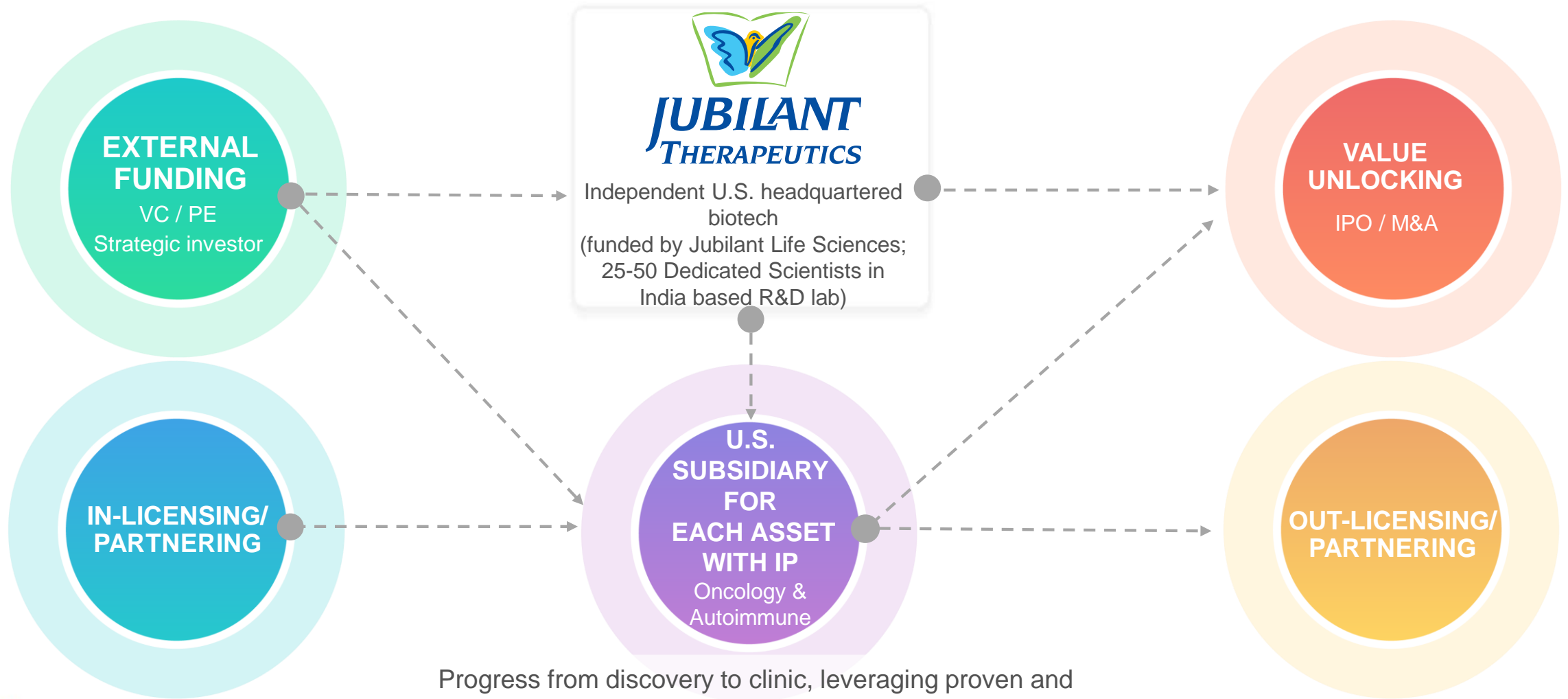


U.S. headquarters (Corporate Office in Bedminster, NJ; Lab in Bangalore and Noida, India) with an independent board and management team, guided by **globally renowned KOLs and SAB**



Incubated, Funded and Supported by **Jubilant Life Sciences**,
a global pharma and life sciences company with about \$1.3B revenue

Agile and flexible business model to accelerate value creation



Progress from discovery to clinic, leveraging proven and synergistic capabilities of Jubilant Life Sciences' world-class research with **in-house** discovery & development expertise

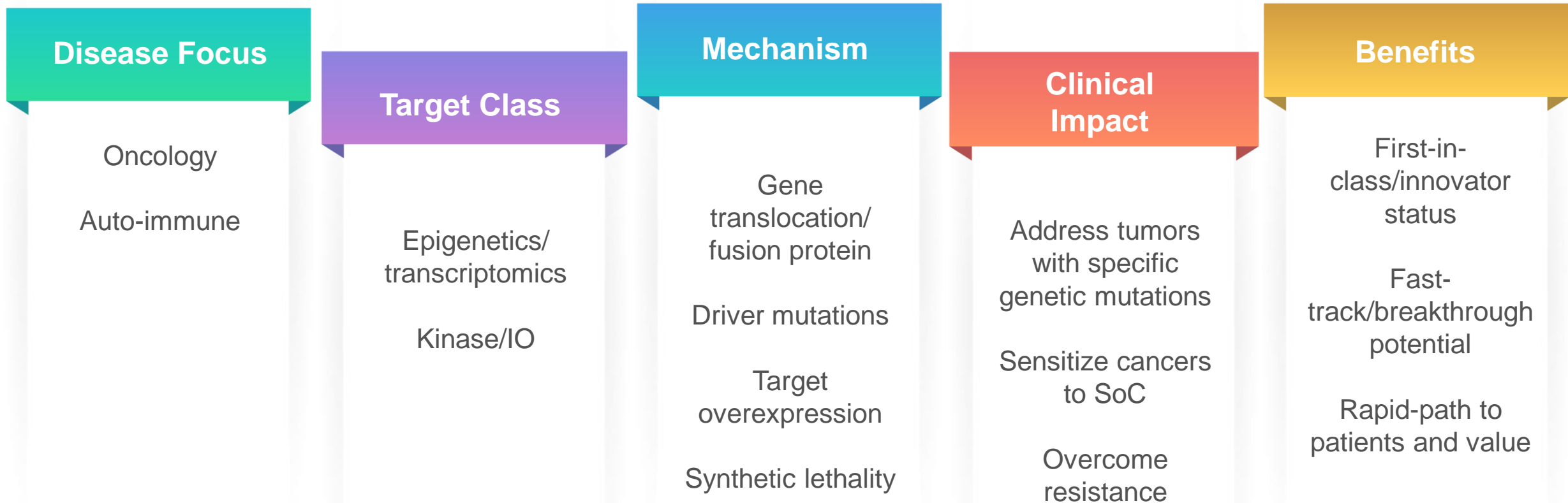
Applying an advanced, powerful discovery engine for novel target discovery and candidate selection



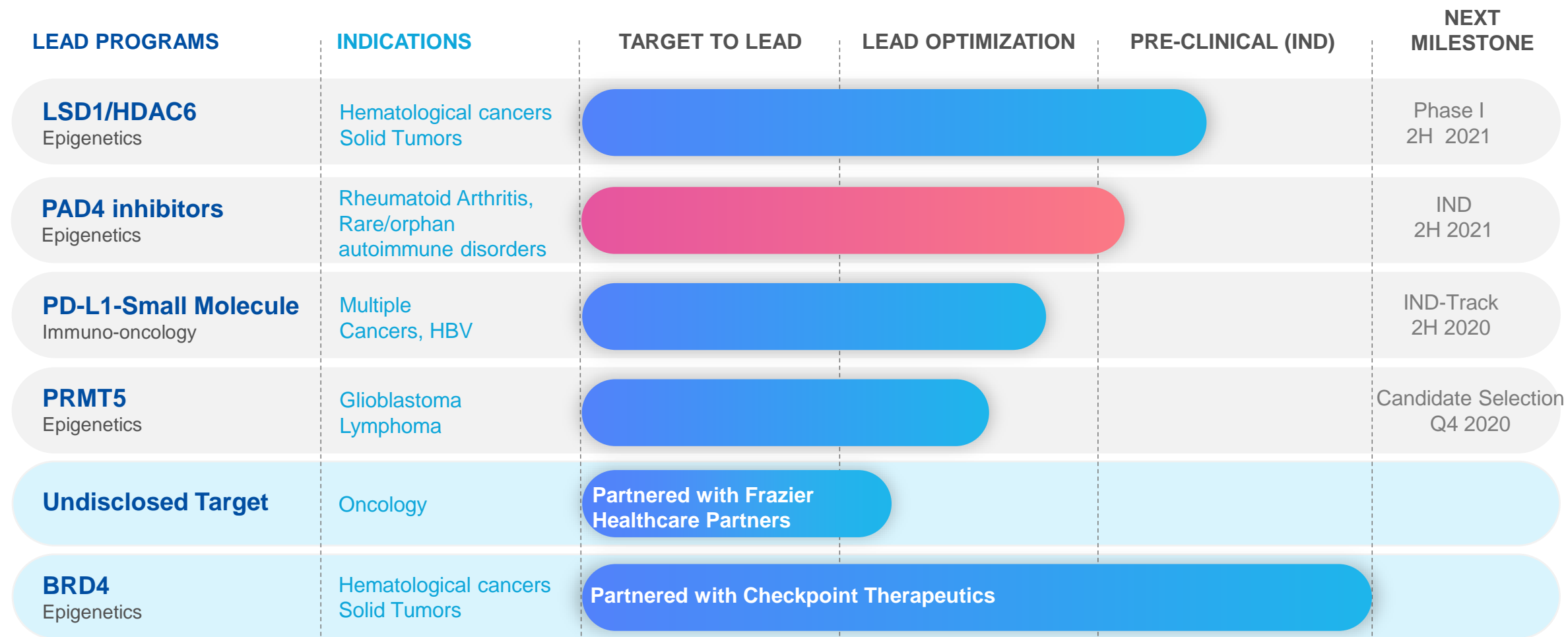
Jubilant's technology platform with 550+ scientists has been successfully validated through **75+** integrated discovery programs for big pharma, biotech and healthcare VCs



Unlocking the value of first-in-class and technically challenging drug targets



Differentiated portfolio advancing toward Phase 1



Additional early stage programs in intractable targets in oncology



**Selective Dual
LSD1 / HDAC6 Inhibitor
for Hematological and Solid
Tumors**



JUBILANT
THERAPEUTICS

Strong scientific and clinical rationale for LSD1/HDAC6 inhibition in acute myeloid leukemia (AML)



Scientific Rationale

- LSD1 is essential for cancer stem cell survival and maintains tumors non-responsive to immune modulation (“cold” tumor)
- HDAC6 leads to immune suppression and other substrate dependent cancer cell processes to promote cancer cell survival
- Both targets are over-expressed in AML.



Clinical Rationale

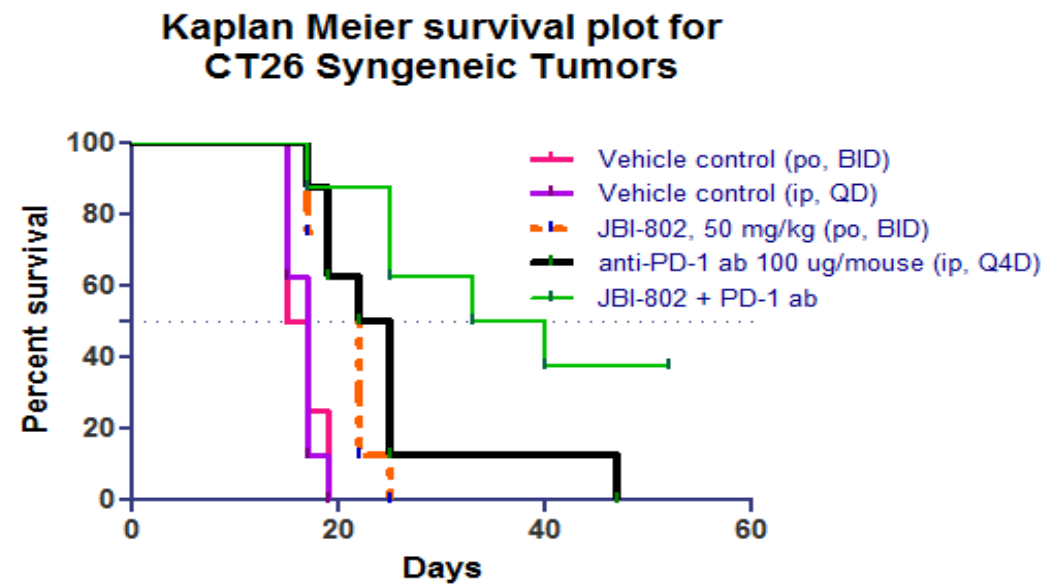
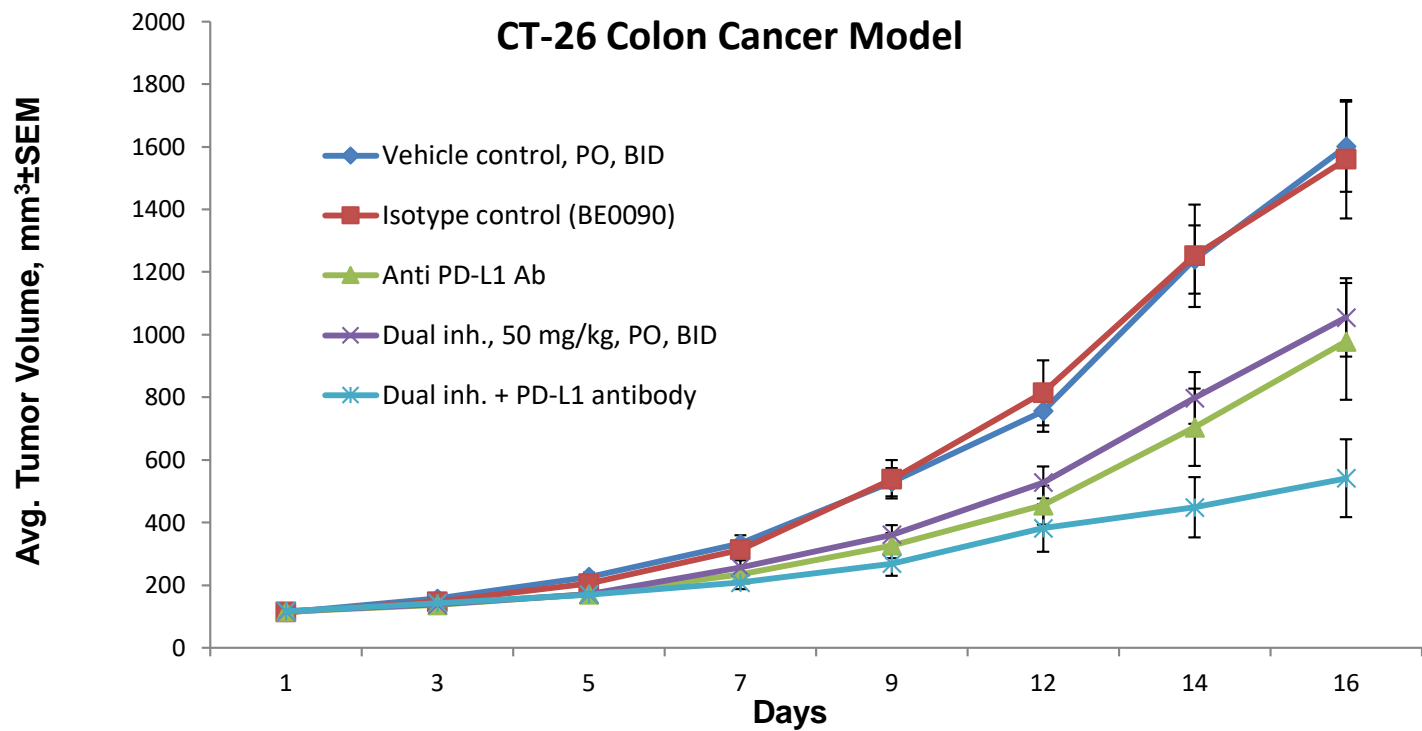
- Synthetic lethality approach: targeted killing of malignant cells
- Current SoC has a low response rate, limited single agent activity and dose-limiting toxicities
- LSD1 inhibitor alone has shown limited single agent activity
- Selective inhibition of HDAC6 may reduce the toxicity associated with pan-HDAC inhibitors.



Opportunity

- Faster clearance, sustained target engagement in malignant cells; minimized systemic tox
- Patient stratification based on MLL rearranged tumors, MDS and erythroleukemia
- Synergy or overcome resistance when combined with chemo/SoC
- Combine with checkpoint inhibitor for solid tumors (sarcomas and lymphomas)

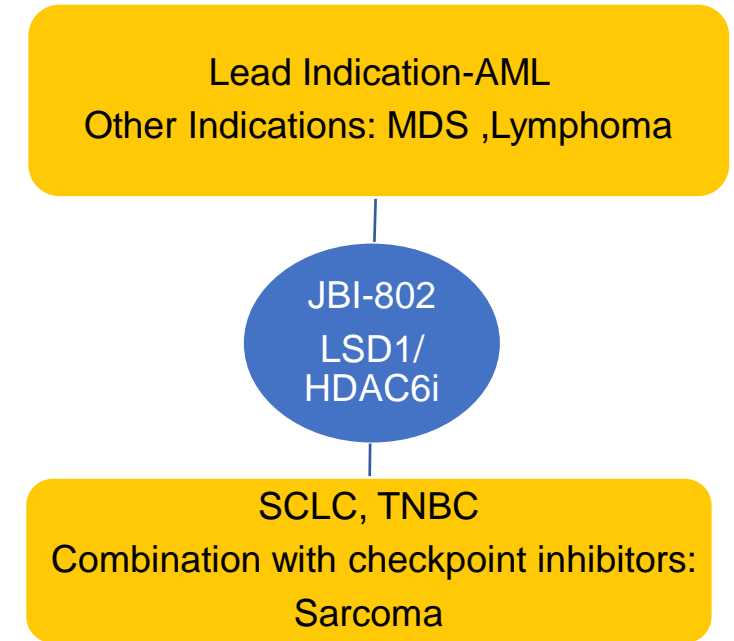
JBI-802: Dual inhibitor demonstrated efficacy as a single agent and superior activity in combination with anti-PD-L1 mAb



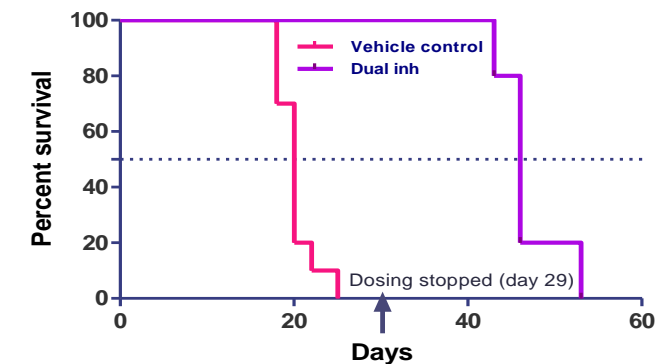
Combination of Dual inhibitor and anti-PD-1 mAb enhances survival

JBI-802 - Novel mechanism of dual LSD1/HDAC6 inhibition to enter Phase 1 in 2021

- ✓ JBI-802 is orally available with novel dual mechanism of action of Isoform selective HDAC6 inhibition and potent LSD1 inhibition
- ✓ Robust biomarker modulation of LSD1 (CD11b and CD86) and HDAC6 (tubulin acetylation) observed both *in vitro* and *in vivo*
- ✓ Superior *in vivo* efficacy as compared to LSD1 and HDAC6 inhibitors that are in clinic
- ✓ Efficacy demonstrated in multiple xenograft model
- ✓ Stronger efficacy in combination with immune checkpoint inhibitors
- ✓ No major adverse effects observed in the 14-day non-GLP repeat dose toxicity in mice
- ✓ GMP material synthesized and IND track in progress
- ✓ PCT patent filed in major territories and expires in 2036



Kaplan Meier survival plot for HEL 92.1.7 Xenografts



Selective PAD4 Inhibitors for Auto-immune Diseases



JUBILANT
THERAPEUTICS

Strong scientific and clinical rationale for PAD4 inhibitors in rheumatoid arthritis (RA)



Scientific Rationale

- Next generation target in autoimmune/inflammation beyond JAKs and TNFs
- High anti-CCP (anti-cyclic citrullinated peptide) levels are detected in RA patients
- Targeting auto-antibody production through PAD inhibition in RA
- Strong rationale for PAD4 through KO and genetic studies



Clinical Rationale

- Antibodies produced against citrullinated proteins (including anti-CCP), are diagnostic, prognostic and stratification markers of RA
- Differentiated mechanism to treat RA and other autoimmune diseases
- Targeting PAD4 does not lead to immune suppression nor risk of thrombocytopenia and may offer better therapeutic margin and safety

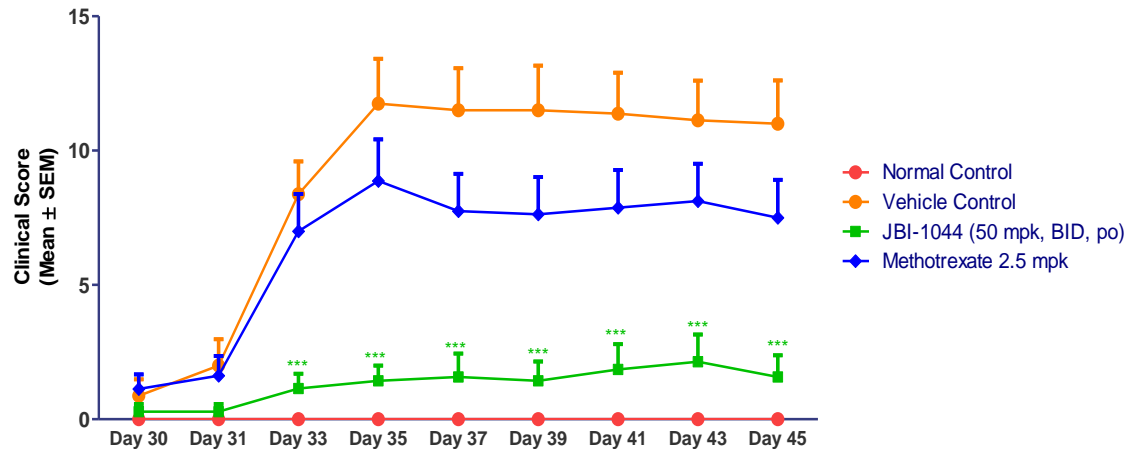


Opportunity

- First-in-class epigenetic mechanism in RA
- Small molecule option for anti-TNF- α non-responders
- Potentially better side effect profile than JAK inhibitors
- Potential utility in various auto-immune disorders such as **Rheumatoid Arthritis and select Rare diseases and Orphan indications**

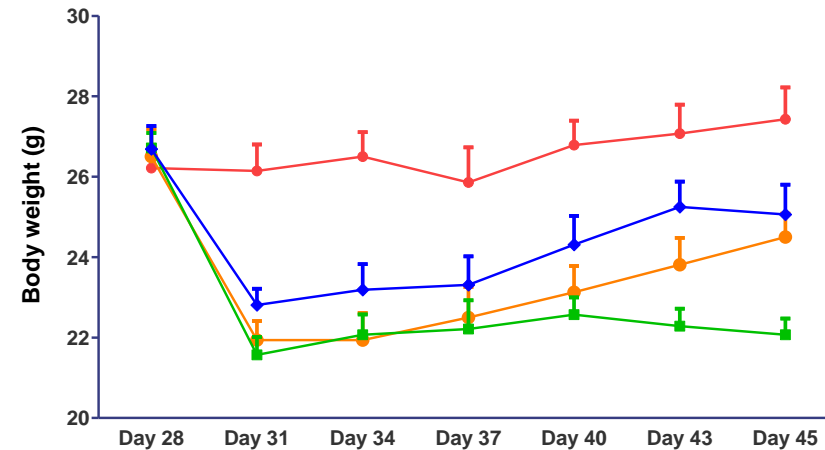
PAD4 inhibitor JBI1044 protects from disease progression in CIA-induced arthritis

Clinical score



***P<0.001 vs Vehicle Control, Two way ANOVA followed by Bonferroni multiple comparisons Test.

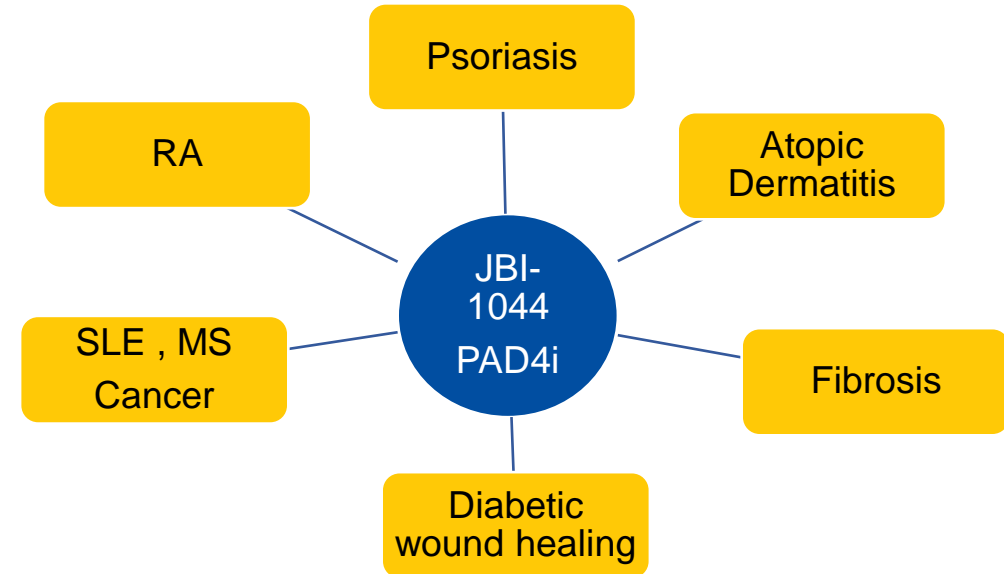
Body weight



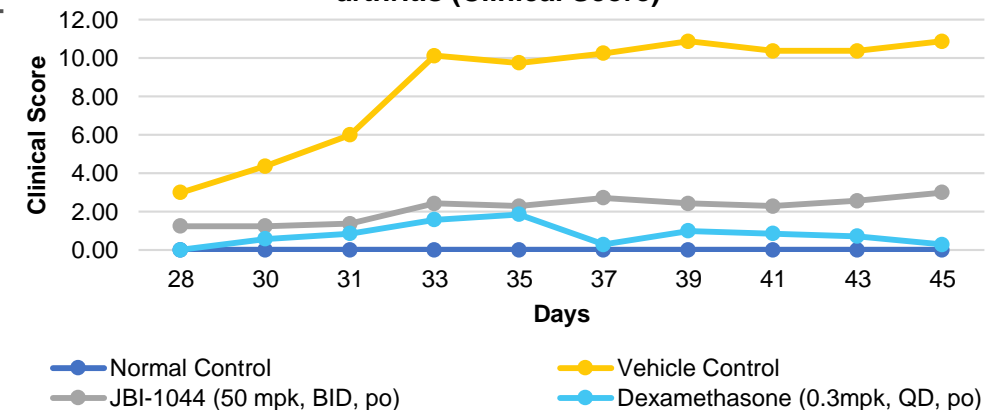
- Significant reduction in CitH3, IL-10 and IL-17 in arthritic paw samples
- Well tolerated with no significant change in spleen weight, thymus weight and body weight observed
- Efficacy signals in animal models of diabetic wound healing, imiquimod-induced psoriasis and TPA-induced dermatitis

JBI-1044 – PAD4 inhibitor targeting auto-immune disorder to complete IND filing in 2H 2021

- ✓ Orally available novel, small molecule inhibitor complies with rule of five
- ✓ Unique Mechanism of action: modulation of citrullination and NETosis
- ✓ Selective against PAD4 and does not inhibit other isoforms
- ✓ Excellent efficacy demonstrated in collagen induced arthritis model by oral route of administration
- ✓ Efficacy demonstrated in lung fibrotic model and is comparable to Nintedanib
- ✓ Efficacy has also been demonstrated in psoriasis, diabetic wound healing and atopic dermatitis models
- ✓ Potential in select Rare diseases and Orphan indications
- ✓ Good therapeutic margin based on 14 day tox study in rodent and non-rodent - No signs of immune suppression
- ✓ Clean in CEREP safety panel, cardiac profiler and AMES negative
- ✓ Two PCT patents filed in major territory and expires in 2038



Effect of JBI-1044 in Mouse model of Collagen induced arthritis (Clinical Score)



Lead optimization assets

Small molecule PDL1 inhibitor,
Brain penetrant PRMT5 inhibitor



Strong scientific and clinical rationale for novel small molecule PD-L1 inhibitor



Scientific Rationale

- PD1/PD-L1 pathway is a critical component of T-cell immune checkpoint
- In the tumor microenvironment, PD-1 and PD-L1 perform a vital role in tumor progression and survival by escaping tumor immune surveillance
- Targeting PD-1 and PD-L1 simultaneously could reactivate cytotoxic T cells to work against cancer cells



Clinical Rationale

- Anti-PD1/PD-L1 mAbs increase overall survival compared to standard of care in different tumors
- Since mAbs can activate a broad range of immune cells, they can trigger severe auto-immune reactions
- Potential to overcome immune related adverse effects with a small molecule
- Low patient compliance and high cost of mAb therapies are potential issues with SoC



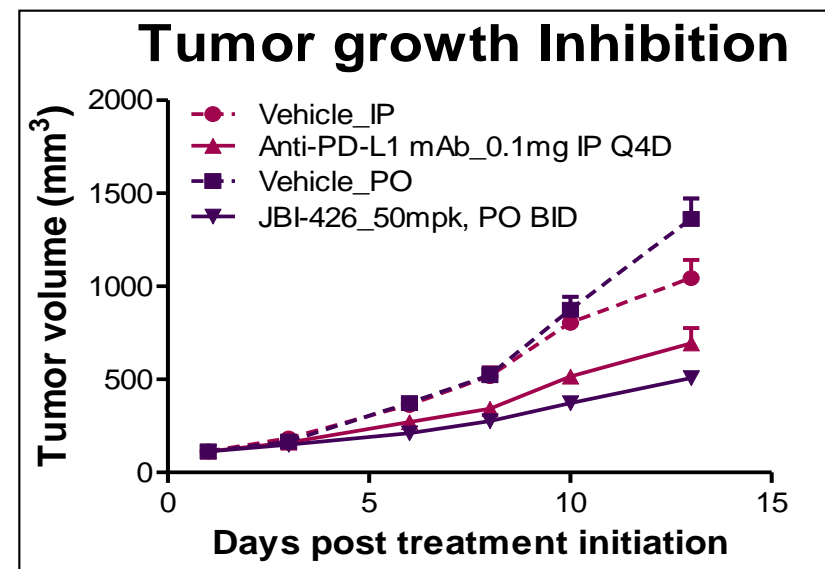
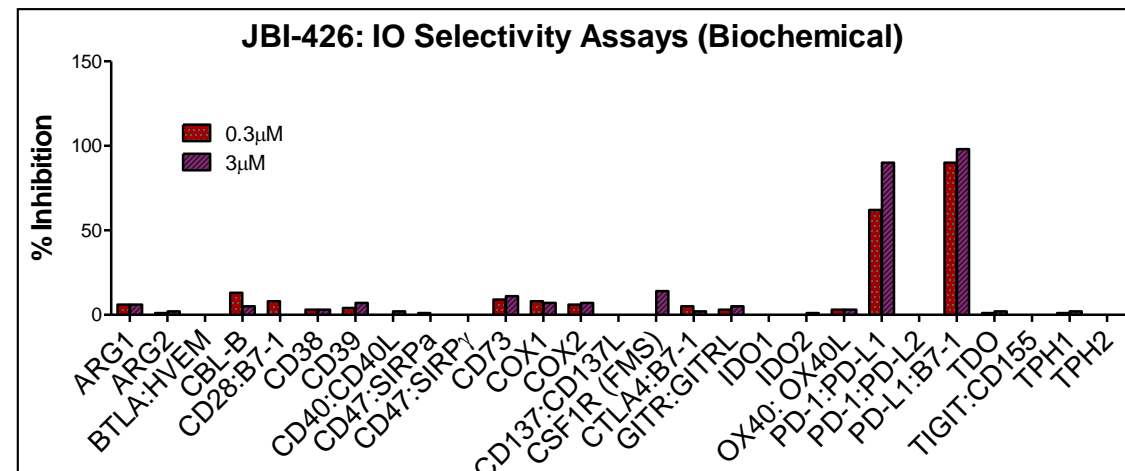
Opportunity

- Potential use after initial mAb treatment as a lower-cost maintenance therapy
- I/O combination in non-oncology indications where small molecule PD-1 oral modality is preferred over IV mAbs

Addressable population for checkpoint inhibition –Alternative to mAbs for increased compliance and long-term use in maintenance settings

Highly selective small molecule PD-L1 inhibitor for Oncology, HepB with no identified off-target effects

- ✓ Orally available novel, small molecule inhibitor
- ✓ Binds to PD-L1 protein and prevents interaction with PD-1
- ✓ Comparable tumor reduction to mAb in the humanized murine model
- ✓ Selectivity and Off target: Highly selective for PD-L1; Clean in Cerep 44 toxicity Panel; Negative in AMES test and no hERG or CYP liability
- ✓ MTD is >500 mg/kg in mice
- ✓ Well tolerated in the 14 day repeat dose toxicity study in mice at the highest dose
- ✓ Two patent PCT application filed



Strong scientific and clinical rationale for novel small molecule PRMT5 inhibitor



Scientific Rationale

- Glioblastoma (GBM) is selectively sensitive to inhibition of PRMT5 and has been identified as a predictive biomarker
- PRMT5 inhibition disrupts the removal of detained introns leading to modulation of proliferation
- Represses expression of several tumor suppressor genes, leading to cancer progression



Clinical Rationale

- Limited or no agents to treat GBM
- Poor response rate with SoC
- Potential for high CINS1A/RIOK1 ratio to identify sensitive patients
- Brain penetrant



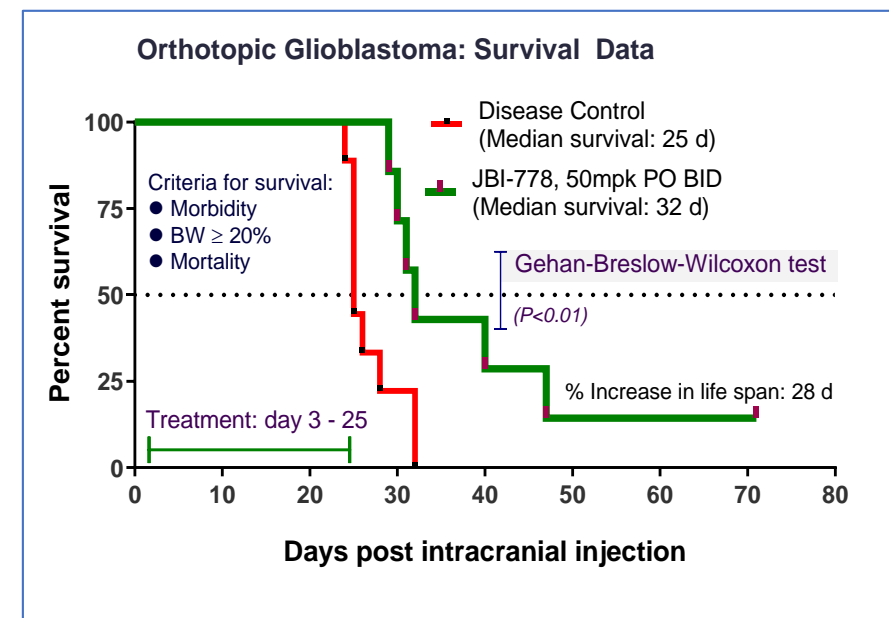
Opportunity

- Mechanism is validated with a few PRMT5 inhibitors in early clinical trials
- Brain-penetrant PRMT5 inhibitor to address the unmet medical need in treating GBM
- Potential use in other cancers where PRMT5 is over expressed (uterine, liver, pancreas, skin, breast, cervix, prostate, kidney, ovary, bladder, and lung)

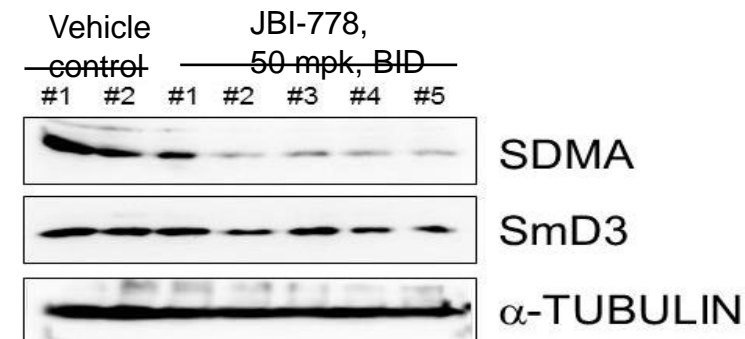
Estimated glioblastoma patient population: 11,000 U.S. and 225,000 global

Brain-penetrant PRMT5 inhibitor to address the unmet medical need in treating GBM

- ✓ Orally available novel small molecule inhibitor complies with the rule of five
- ✓ Inhibits the symmetrical dimethylation of Arginine
- ✓ Selective to PRMT5 in the arginine methyl transferase panel
- ✓ Compounds show reasonable brain exposure and target engagement in brain
- ✓ Superior efficacy has been demonstrated in xenograft model by oral route compared to the reference compound
- ✓ Efficacy has been demonstrated in the orthotopic GBM model by oral route
- ✓ Patent expires in 2038 and filed in all the major countries
- ✓ Further characterization of leads is in progress



Target engagement in brain



Board, Management & Advisors



JUBILANT
THERAPEUTICS

Board of Directors - Seasoned Entrepreneurs and Industry Leaders

Hari Bhartia – Founder, Jubilant Bhartia Group



- Founder of Jubilant Bhartia Group, valued at around US \$ 5 Billion with 39,000 employees globally with leadership position in diverse sectors including Pharmaceuticals, Life Science Ingredients and Drug Discovery Services
- Member of World Economic Forum’s International Business Council; Community of Chairpersons; Global Health and Healthcare Governors Community; Family Business Community. He was the Co-Chair of the Davos Annual Meeting of the World Economic Forum in 2015.

Dr. Syed Kazmi – CEO, Jubilant Therapeutics



- 25+ years in M&A, licensing, strategic collaborations, and R&D in both specialty biotech and large pharma companies



Pramod Yadav – CEO, Jubilant Pharma



- 30+ years experience; 20+ years in Jubilant
- Held various senior leadership roles and presently CEO of Jubilant Pharma in U.S



Mitchell Guss – Head Legal, Jubilant Pharma



- 30+ years experience
- Leads legal and related functions for Jubilant Pharma U.S.



Management team with international experience and scientific excellence

Name & Title	Brief Bio
Rajiv Tyagi VP– Business Development	<ul style="list-style-type: none"> • 15+ years of experience in drug discovery in both scientific and commercial domains. • Brook Haven National Laboratory; Queensland Institute of Medical research
Shyam Pattabiraman CFO	<ul style="list-style-type: none"> • 15+ Years global consulting and industry experience • Former member of Strategy Officer community at the World Economic Forum • PricewaterhouseCoopers
Sridharan Rajagopal VP - Med. Chemistry	<ul style="list-style-type: none"> • Nearly 15 years of drug discovery experience including taking 3 drugs into the clinic • 25 peer-reviewed articles, 33 poster/oral presentations, 17 patents published (multiple countries) • Aurigene; Orchid Chemicals
Dhanalaksmi Sivanandhan AVP - Biology	<ul style="list-style-type: none"> • 17+ years of experience in cancer Biology and has delivered 3 candidates currently in clinic • 29 peer reviewed articles, 29 posters/oral presentations, 7 patents • National Cancer Center, Japan
Rajeev Mohan Director – Project Management	<ul style="list-style-type: none"> • 18+ years of diverse pharmaceutical experience encompassing business strategy, portfolio selection, commercial operations, manufacturing and R&D • Vensun Pharmaceuticals; URL Pharma
Agunan Krishnan Assoc. Director - BD	<ul style="list-style-type: none"> • 14 years of multi-disciplinary experience involving Strategy, Market Research, Business Development, Licensing, Drug Discovery, Structural Biology, Veterinary medicine • Jubilant Biosys



Supported by Functional Advisors with extensive industry experience

Dr. Ron Christopher – Preclinical Development



- Nonclinical/early clinical development activities in oncology, inflammation, cardiovascular, CNS and metabolic disease therapeutic areas covering drug safety, pharmacokinetic and clinical pharmacology applications; Regulatory filing experience: >25 INDs, 4 NDAs, 3 MAAs



Dr. Guy Gammon – Translational Research



- Development of Protocols, IND submissions & Clinical Development Strategy (Phase 1 through Phase 3)
- Interfacing with Regulatory Agencies, preparation of submissions and approval of clinical studies



Dr. Mary Scott – Regulatory Affairs



- 30 years in the pharmaceutical/biotech industry working to develop novel small molecules and biotherapeutics.



Dr. William Lambert – Chemistry, Manufacturing and Controls (CMC)



- 30+ years of Pharmaceutical and biotech experience.
- Subject matter expert in sterile product formulation development and manufacture, analytical development, lyophilization, aseptic processing, tech transfer, drug delivery, combination product devices, cGMPs, and life cycle management



Leveraging innovation to deliver precision medicines in oncology and auto-immune diseases





Thank You

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Investor Relations:

Shyam Pattabiraman

Chief Financial Officer

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