

Forward Looking Statement

This presentation contains forward-looking statements. All statements other than statements of historical facts contained in this presentation, including statements regarding our future results of operations and financial position, business strategy, prospective products, product approvals, research and development costs, timing and likelihood of success, plans and objectives of management for future operations, and future results of current and anticipated products, are forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar expressions. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These known risks and uncertainties are described in detail in our filings with the Securities and Exchange Commission (the "SEC") from time to time. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forwardlooking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and we undertake no obligation to revise or update this presentation to reflect events or circumstances after the date hereof.

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions, and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

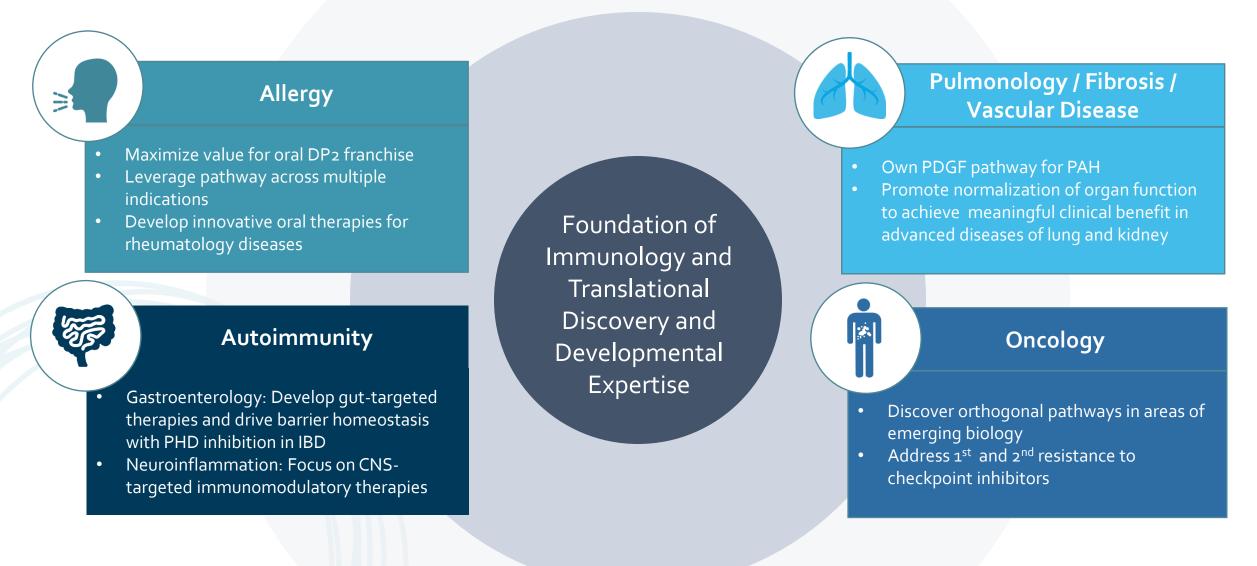


| Immunology Focus | Disruptive research and development engine focused on the disease areas of immunology, inflammation and oncology, with 4 assets in clinical development and multiple preclinical programs underway |
|------------------|--|
|------------------|--|

| Diversified Pipeline | 3 clinical trials ongoing with an additional 4 initiations planned in 2019 and multiple data readouts over the next 18 months | |
|----------------------|---|--|
| World-Class Talent | Deeply experienced leadership team with proven track record of developing innovative clinical assets | |
| | | |



Deep Therapeutic Area Expertise Leads to Centers of Excellence



gossamerbio

Experienced Leadership Team at the Helm

| Sheila Gujrathi, MD Chief Executive Officer | Bryan Giraudo Chief Financial Officer | Jakob Dupont, N Chief Medical Office | | Salter-Cid, PhD Scientific Officer | Christian Waage EVP and General Counsel |
|--|---|---|--|--|---|
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| | | Board of Direct | | | |
| Fa | heem Hasnain Managi | ng Director, Former | om Daniel, MD Celgene Research Chair, of Res. & Early Dev. | Renée Galá, Former CFO, GRAIL, Inc. | |
| | GEO Managi | ng Director, | sh Bilenker, MD Former CEO, Loxo Oncology | Russell Cox Former EVP and CO Jazz Pharmaceutic | |
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Robust Pipeline with Three Clinical Trials Ongoing

| PROGRAM | CLASS (Route of Admin.) | INDICATION | RESEARCH | PRE- CLINICAL | PHASE 1 | PHASE 2 | PHASE 3 | RIGHTS |
|---------|--|---|-------------------|------------------|---------|-----------|---------|-----------------------------|
| GB001 | DP2 Antagonist (Oral) | Moderate-to-Severe Eosinophilic Asthma | Phase 2b Ongoing | – LEDA Study | | LEDASTUDY | | Worldwide (except Japan) |
| GB001 | DP2 Antagonist (Oral) | Chronic Rhinosinusitis (with and without nasal polyps) | Phase 2 PoC Ongoi | ng – TITAN Study | titan | | | Worldwide (except Japan) |
| GB001 | DP2 Antagonist (Oral) | Chronic Spontaneous Urticaria | Phase 2 PoC Plann | ed | | | | Worldwide (except Japan) |
| GB002 | PDGFR Inhibitor (Inhaled) | Pulmonary Arterial Hypertension | Phase 1b Planned | | | | | Worldwide |
| GB004 | HIF-1α Stabilizer ^(Oral) | Inflammatory Bowel Disease | Phase 1b Ongoing | | | | | Worldwide |
| GB1275 | CD11b Modulator (Oral) | Oncology, Solid Tumors | Phase 1/2 Planned | | | | | Worldwide |





DP₂ Antagonist

Asthma and Other Allergic Conditions, including Chronic Rhinosinusitis (CRS) and Chronic Spontaneous Urticaria (CSU)

| | Oral DP2 antagonist in Phase 2b development for the treatment of moderate-to-severe eosinophilic asthma (LEDA Study – Initiated Q4 2018) |
|-------------|---|
| Product | Proof of concept Phase 2 trial for chronic rhinosinusitis with and without nasal polyps underway (TITAN Study – Initiated Q2 2019), with planned initiation of additional PoC trial in chronic spontaneous urticaria in 2H 2019 |
| Description | Asthma Phase 2 interim results expected in 1H20; Asthma Phase 2 topline results in 2H20; CRS & CSU Phase 2 topline results in 2020 |
| | • 409 patients have received at least 1 dose of GB001 with no clinically significant safety findings ⁽¹⁾ |
| | • Patent protection out to 2031 ⁽²⁾ |

DP2 important in Th2 cell activation and upstream of IL-4, IL-5 and IL-13

Mechanism of Action and Scientific Rationale

- The cell activation plays prominent role in asthma and other allergic and inflammatory disorders
- Target validation from Teijin's Phase 2 study in Japanese patients and Novartis's fevipiprant program

GB007

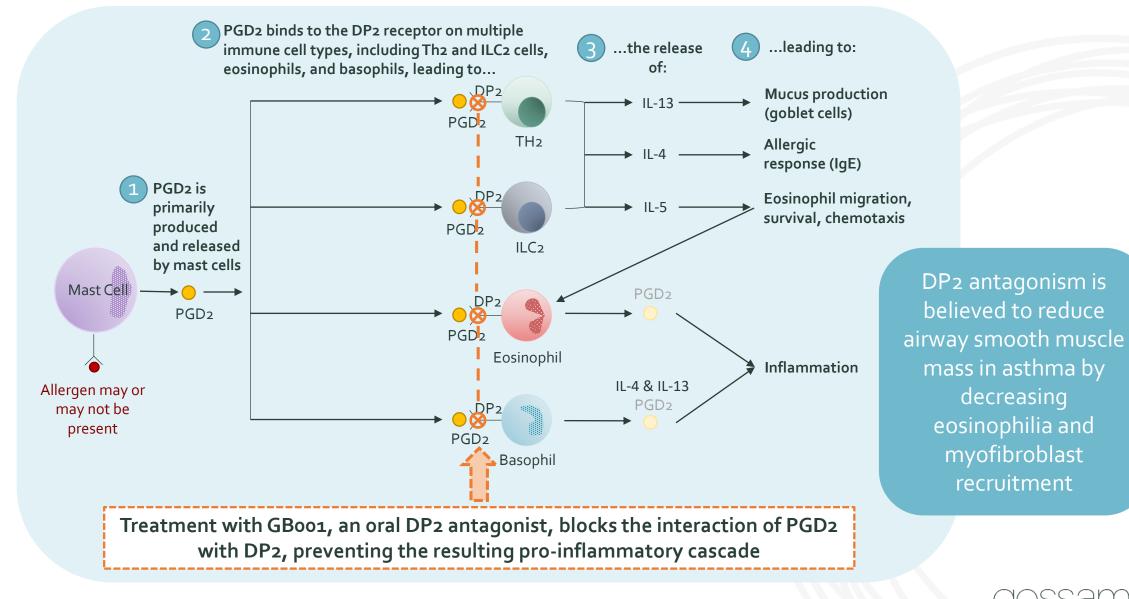
• Anti-inflammatory effect comparable to certain biologics with potential to be used earlier in treatment

CRS = Chronic Rhinosinusitis; CSU = chronic spontaneous urticaria.

1) As of December 31st, 2018.

2) Includes assumption of maximum 5 years of patent term extension. Corresponding patent(s) and patent application(s) with compound-specific claims.

Role and Biology of the DP2 Pathway in Type 2 Inflammation

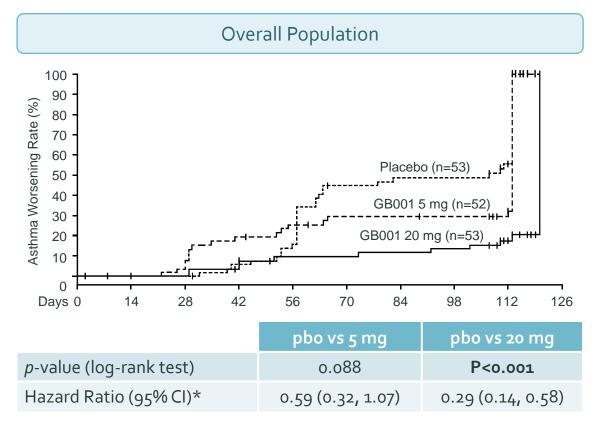


GB003

9 Sources: Domingo, Respiratory Research 2018; Singh, Clinical Pharmacology: Advances and Applications 2017; Farne, Expert Opinion on Emerging Drugs 2016; Stone, J Allergy Clin Immunol 2010; Saunders, Sci Transl. Med. 2019.

Japanese Phase 2 Study Demonstrated Statistically Significant Improvements in Time-to-First Asthma Worsening

Both doses of GBoo1 met the primary endpoint of change in morning peak expiratory flow with statistical significance vs placebo



pbo = placebo.

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*Cox Regression.

Definition of asthma worsening

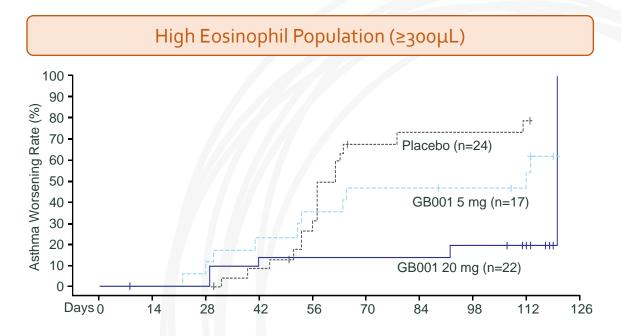
. For 2 or more consecutive days, AM PEF (morning peak expiratory flow) ≤ 0.75 x mean level of AM PEF for the last 7 days of Run-in Period

2. FEV1 (forced expiratory volume in one second) \leq 0.8 x at the randomization time point

3. For 2 or more consecutive days, using SABA (short-acting beta agonist) at a dose of 5 puffs/day

4. Asthma Control Questionnaire (ACQ) \geq ACQ at the randomization time point + 0.5

5. Having had asthma exacerbation requiring administration of oral corticosteroids or step 2 or higher treatments of Japan Guidelines 2012 steps of asthma attacks



p-value (log-rank test) for placebo vs 20mg GB001 is
 o.ooo3 for the high eosinophil subgroup (≥300µL)

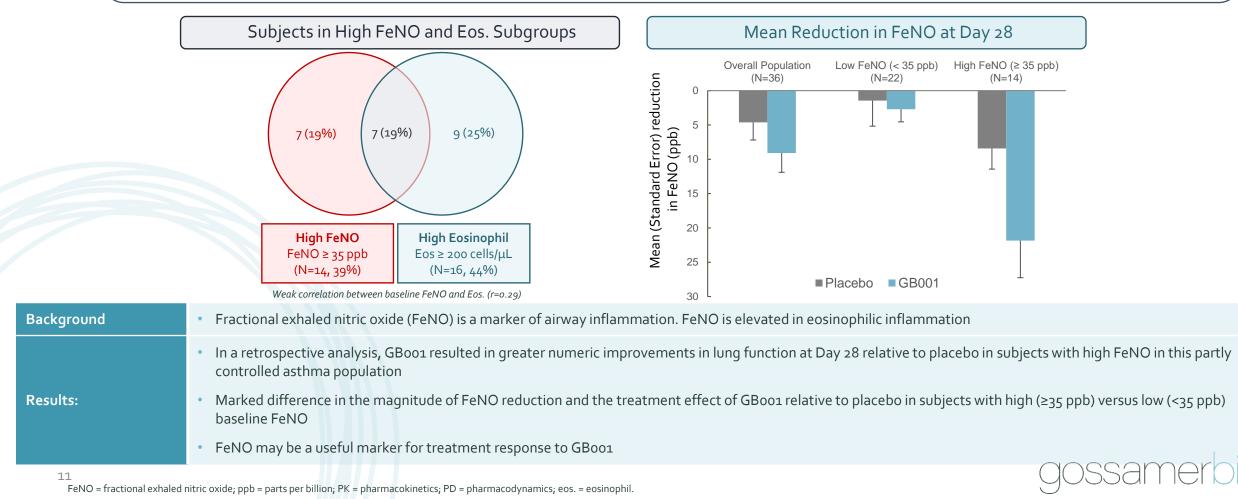
Beyond Eos: Potential for Target Market Expansion



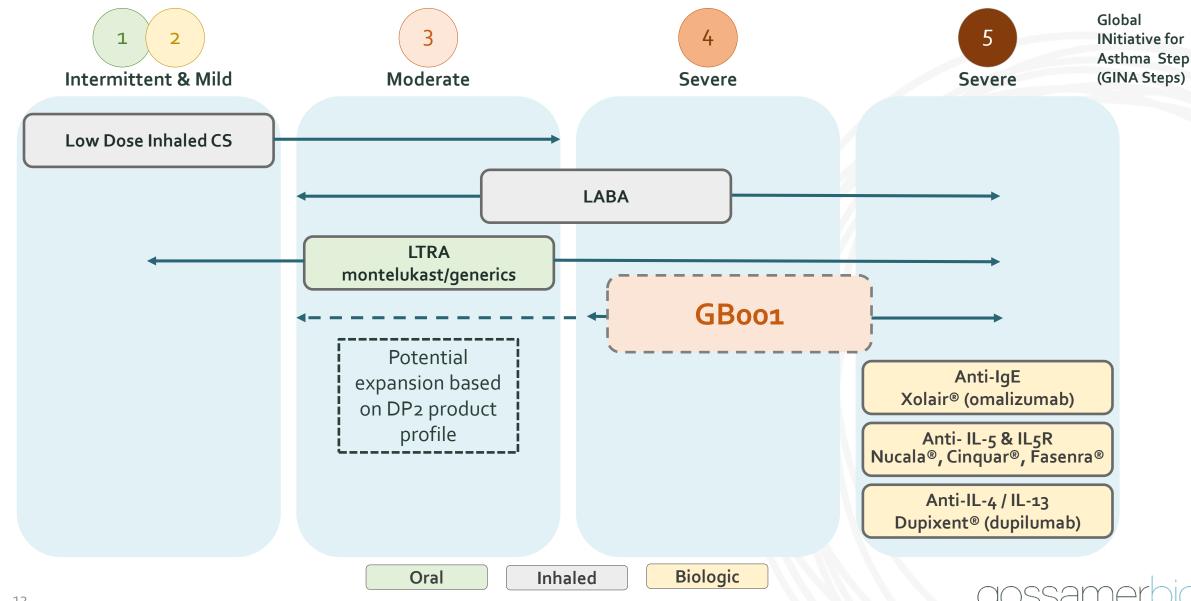
Poster Presentation at AAAAI 2019

Reduction of Exhaled Nitric Oxide by the DP2 antagonist GB001 in Patients with Mild-Moderate Atopic Asthma

Results from a post-hoc analysis evaluating Fractional exhaled Nitric Oxide (FeNO) as a baseline marker and outcome following administration of GB001 or placebo over 28 days in 36 subjects with partially controlled, atopic asthma



Potential for Market Asthma Positioning Prior to Biologics



GB003

Asthma Controllers

CS = Corticosteroids; LABA = Long-acting beta agonist; LTRA = Leukotriene receptor antagonist.

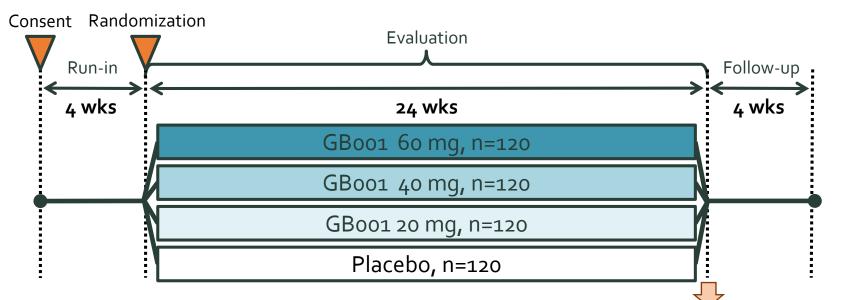
LEDA Study: Phase 2b Study Design Allows for Efficient Transition to Phase 3





A Phase 2b, randomized, double-blind, placebocontrolled, dose-ranging, multicenter study to evaluate the efficacy and safety of GBoo1 as maintenance therapy in adult subjects with moderate to severe asthma

> Status: Enrolling, Initiated Q4:2018



| Interim analysis after ~320 subjects complete week 24 or prematurely withdraw from the study (expected in 1H 2020) | | |
|--|---|--|
| Patient Population | 480 adult modto-severe eosinophilic asthmatics (eosinophil counts \ge to 250 cells/µL) | |
| Treatment | 6omg, 4omg, 20 mg or placebo, oral administration (QD) on top of background therapy | |
| Duration of Treatment | 24 weeks | |
| Endpoint | Primary: Reduction in asthma worsening from baseline; asthma worsening composite primary endpoint includes changes in FEV1, AM PEF, rescue medication use, asthma control and severe asthma exacerbations Secondary: FEV1, asthma control, asthma quality of life | |

CRS and CSU Represent High-Value Indications with a Strong Strategic Fit



| Chronic Rhinosinusitis | Chronic Spontaneous Urticaria |
|--|--|
| A subtype of CRS is thought to occur secondary to chronic inflammation involving eosinophil activation | Strong Scientific Mast cell driven disease Eosinophil infiltration in lesional skin |
| DP2 implicated in pathophysiology, including nasal polyps formation | • DP ₂ expression present on eosinophils and basophils of CSU patients |
| No drug treatments for refractory cases Surgery only alternative, often ineffective with high recurrence rate | High Unmet Need • Omalizumab is the only indicated long-term treatment for antihistamine-refractory patients |
| Synergy with respiratory franchise, price and call points Potentially disruptive therapy targeting white space | Synergy with allergy franchise, price and call points Potentially disruptive therapy targeting white space |
| Direct, annual costs related to CRS estimated to be \$6.9 - \$9.9bn worldwide No oral DP2 antagonists in pipeline | High Value Target • 300k to 600k have symptoms for 5+ years • BTKs only oral mechanism of action in pipeline |

Parallel development of Phase 2 PoC trials for CRS and CSU initiating in 2019; topline data expected in 2020

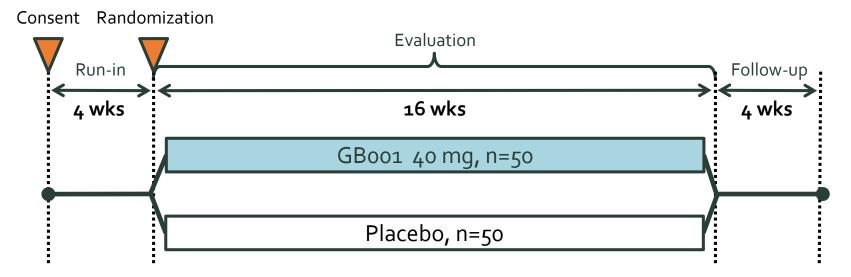
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TITAN Study: Phase 2 Proof of Concept in CRS With and Without Nasal Polyps

• TITAN STUDY

A Phase 2, signal seeking, randomized, double-blind, placebo-controlled, doseranging, multi-center study to evaluate the efficacy and safety of GBoo1 in combination with intra-nasal steroids in adult patients with CRS

> Status: Enrolling, Initiated Q2:2019



| Patient Population | ~64 adult patients with CRS with nasal polyps; ~36 adult patients with CRS without polyps | |
|--------------------------|--|--|
| Treatment | 40mg or placebo, oral administration (QD), on top of intra-nasal steroids | |
| Duration of Treatment | 16 weeks | |
| Endpoint | Primary: SNOT-22 (Sino-Nasal Outcome Test-22) Secondary: Opacification of sinuses as measured by CT scan, Nasal Polyposis Score (in subset with NP), Nasal Congestion, Incidence of TEAEs, Labs, ECG, vital signs | |

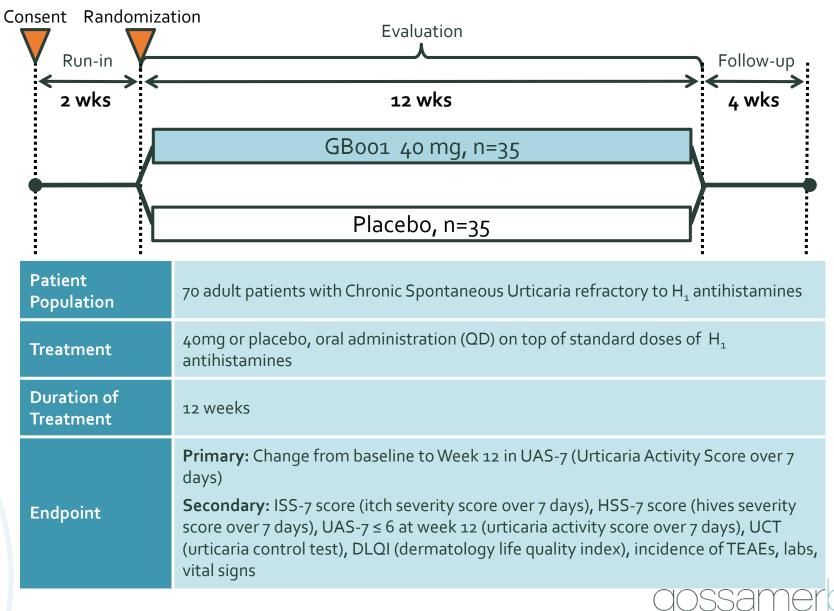
GBOOJ

Phase 2 Proof of Concept in Chronic Spontaneous Urticaria

GB007

A Phase 2, signal seeking, randomized, double-blind, placebo-controlled, doseranging, multi-center study to evaluate the efficacy and safety of GBoo1 in combination with H₁ antihistamines in adult patients with CSU

> Status: Planned Initiation in 2H 2019



QD = once daily dosing; TEAEs = treatment-emergent adverse events.



PDGF Receptor Kinase Inhibitor

Pulmonary Arterial Hypertension (PAH)

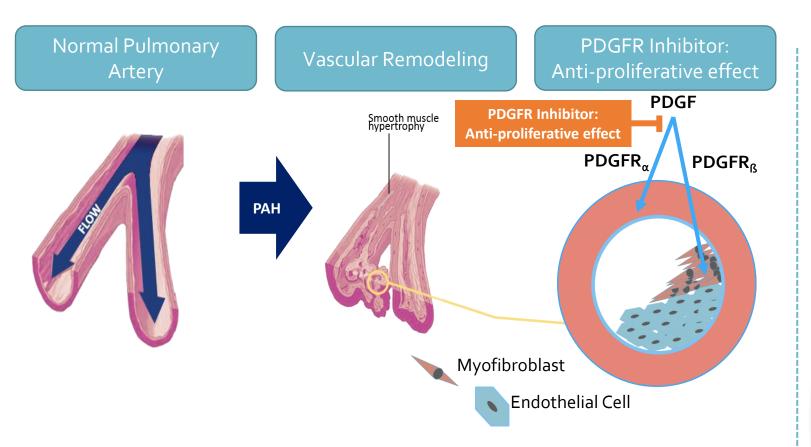
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| | | Selective, inhaled PDGF receptor kinase inhibitor to address the disease pathogenesis of PAH |
|-------|------------------------|--|
| Pro | Product Description | • Planned Phase 1b trial in PAH, first patient screen in 1H 2019, with expected readout in 1H 2020 |
| Descr | | • Planned Phase 2/3 trial in PAH, initiating in 2H 2019, with expected readout in 2H 2021 |
| | | Patent protection out to 2034⁽¹⁾; Orphan Drug Designation from FDA |
| | | |

| | • PAH underlying pathology driven by abnormal cell proliferation related to lung small blood vessels |
|--|---|
| | Activated PDGF receptor induces cellular proliferation and is known to be upregulated in PAH |
| Mechanism of Action and Scientific | Kinase inhibition was shown to be clinically significant in Phase 3 PAH trial of imatinib (Gleevec), with systemic toxicities |
| Rationale | GBoo2 has improved selectivity vs PDGF receptor β compared to imatinib and has demonstrated hemodynamic improvements and reduced occlusive lesions in animal models |
| | Inhaled delivery of GBoo2 designed to improve side-effect profile (compared to imatinib), provide convenient administration, and maximize drug delivery to lung |

18 1) Does not include available patent term extension. Corresponding patent(s) and patent application(s) with compound-specific claims. Total patent life with patent term extension cannot exceed 14 years from approval.

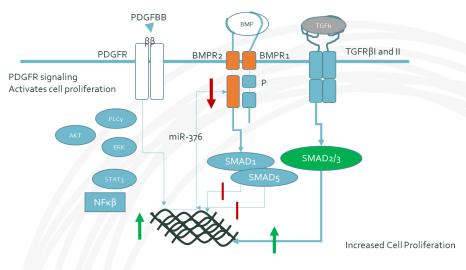
PDGF Pathway Drives Pulmonary Arteriolar Remodeling – an Underlying Problem in PAH



- PDGF signaling causes overgrowth of cells in lung blood vessels
- PDGF Receptor is activated by phosphorylation in human PAH

19 Sources: Hopper, et al., Circulation, 2016; Chen et al., BMC Genomics, 2016.

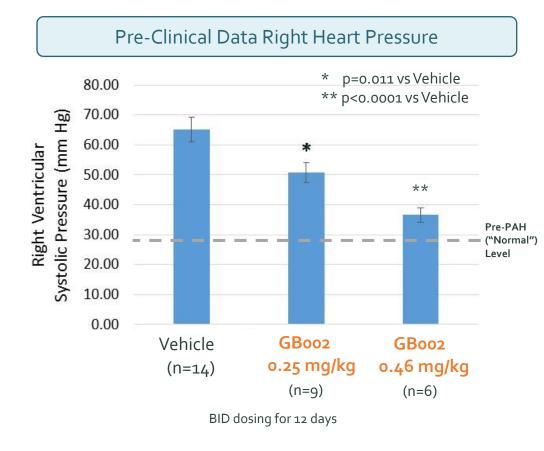
AKT = protein kinase B; TGFb = transforming growth factor beta; NF_{μ} β = nuclear factor-kappa beta; BMP = bone morphogenetic protein.



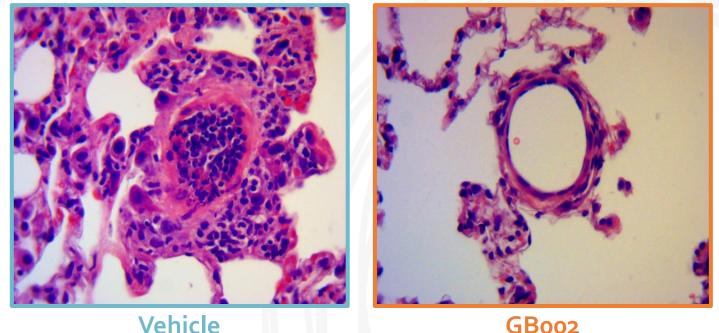
- BMPR2 dysregulation can lead to endothelial changes to smooth muscle like cells
- PDGFR inhibition modulates BMPR2 in pulmonary artery smooth muscle cells
- Primary lesions occur in the small blood vessels of the lung (pulmonary arterioles)



GBoo2 Improves Hemodynamics and Reverses Vascular Remodeling Through Inhibition of PDGF in Animal Models



Dose dependent hemodynamic improvement seen in animal models Pre-Clinical Data of Histology Samples From Rat Model of PAH



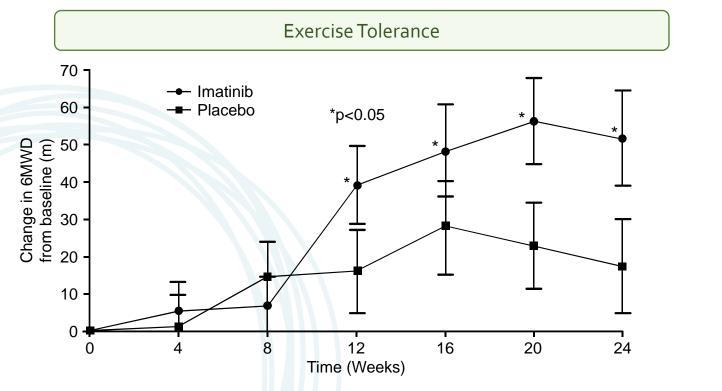
GB002

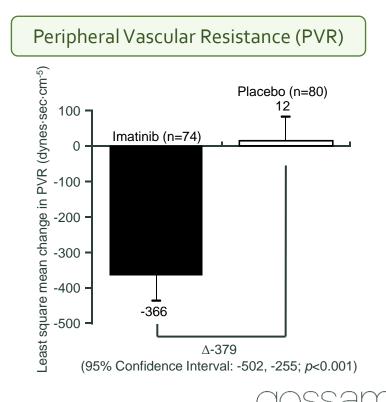
- GB002 inhibits both PDGF α and β , and inhibited and reversed cell overgrowth in lung blood vessels in PAH in a rat model
- Rat model replicates many features of human PAH, including the abnormal cell proliferation that can block the small vessels of the lung

Imatinib Demonstrated Clinical Proof of Principle for Targeting PDGF in PAH in the Phase 3 IMPRES Trial

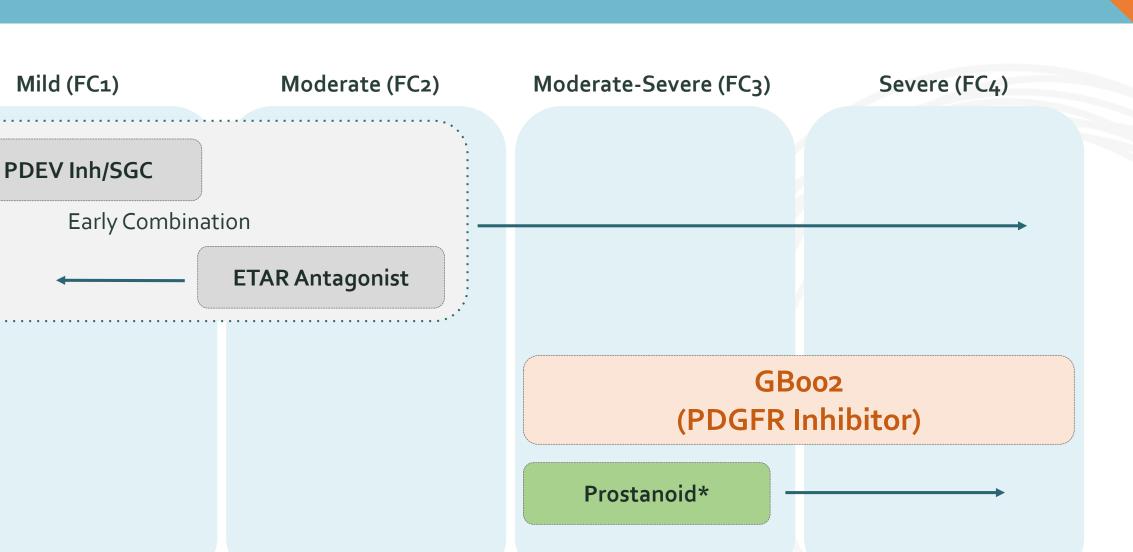
Imatinib Mesylate as Add-on Therapy For Pulmonary Arterial Hypertension Results of the Randomized IMPRES Study

- Imatinib mesylate, as add-on therapy in PAH patients who remain inadequately treated on at least two PAH-specific drugs, improves exercise capacity and hemodynamics
- Of 202 patients enrolled, 41% had failed three classes of therapies
- Serious adverse events, including 8 subdural hematomas and high drop-out rates





CBOO

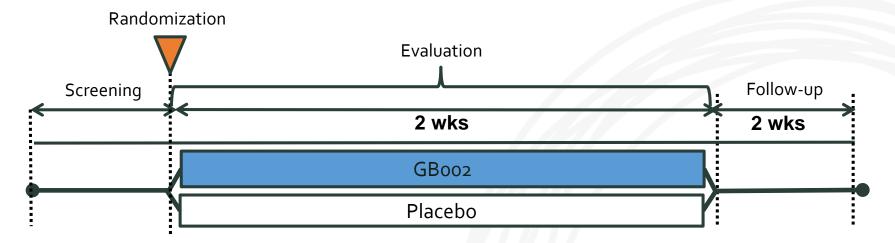


22 ETAR = endothelin receptor type A; FC = Functional Class; PDEV = phosphodiesterase type V; SGC = soluble guanylate cyclase. Sources: 2015 ESC/ERS Guidelines

PAH Therapies

Planned Phase 1b Study in Pulmonary Arterial Hypertension

A Phase 1b, signal seeking, placebocontrolled, dose-ranging study to evaluate the safety and pharmacokinetic profile of GBoo2 in adult patients with PAH



GBO

| Patient Population | Adult PAH patients | |
|-----------------------|--|--|
| Treatments | Multiple doses of GB002, placebo | |
| Duration of Treatment | 2 weeks | |
| Key Study Objectives | Safety, tolerability, PK profile, peripheral blood biomarkers, markers of disease modification through imaging | |
| Endpoints | AE Profile, changes in safety lab values, PK parameters, NTproBNP, Right Ventricular Ejection Fraction (based on cardiac MRI), high resolution CT Scan reconstruction of pulmonary vasculature | |

Status: Anticipated Patient Screening in 2Q 2019



Hypoxia Inducible Factor 1^{α} (HIF- 1α) Stabilizer

Inflammatory Bowel Disease (IBD), including Ulcerative Colitis (UC) and Crohn's Disease (CD)

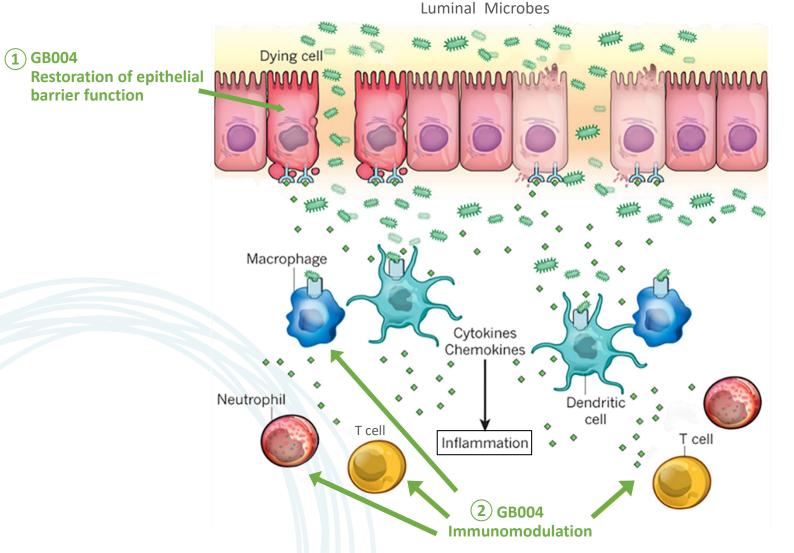
| Product Description | • Oral, small molecule, gut-targeted, prolyl hydroxylase inhibitor that for the treatment of IBD |
|------------------------|--|
| | • Phase 1b trial in UC ongoing, initiated in 2Q 2019, with expected readout in 1H 2020 |
| | • Planned Phase 2 trial in UC, initiating in 1H 2020, with expected readout in 1H 2022 |
| | • Patent protection out to 2035 ⁽¹⁾ |

GB00

| Mechanism of Action and Scientific Rationale | Designed to restore epithelial barrier function, in addition to immunomodulatory effects |
|---|---|
| | High degree of hypoxia in inflamed gut due to vascular disruption and chronic inflammation |
| | HIF-1α stabilization restores epithelial barrier function and exerts innate immunomodulatory effects, which is expected to reduce inflammation and enhance mucosal healing in human IBD |
| | GBoo4 stabilizes hypoxia inducible factor (HIF-1α) locally, and has been shown to reduce weight loss and restore epithelial barrier function in animal models of IBD |

IBD = inflammatory bowel disease.
 Includes assumption of maximum 5 years of patent term extension. Corresponding patent(s) and patent application(s) with compound-specific claims.

Mechanism of PHD Inhibitor to Restore Epithelial Barrier Function

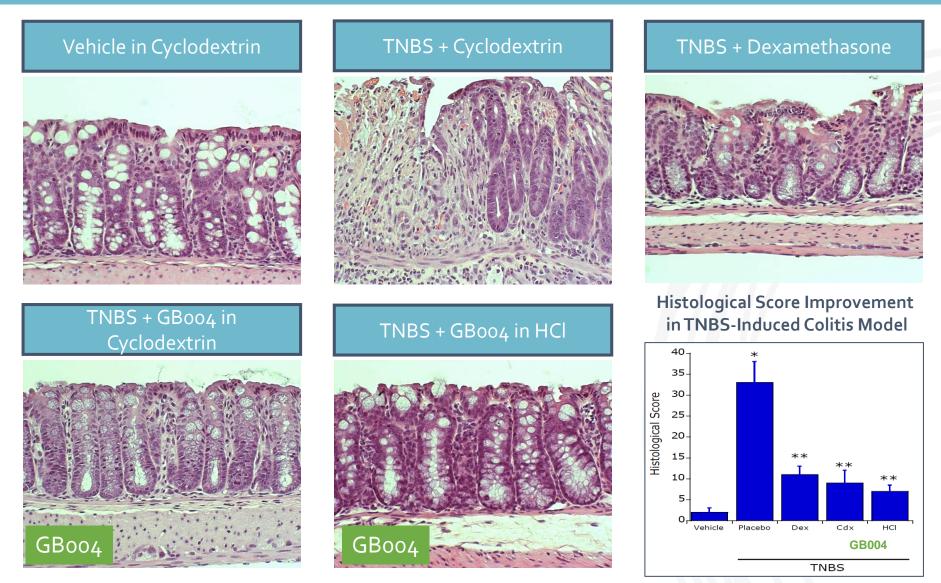


- IBD represents a state of chronic tissue injury
- HIFs play an important role in protecting cells in times of stress and low oxygen levels
- GBoo4 inhibits PHDs, which break down HIFs, preferentially stabilizing HIF-1α
- HIF-1α stabilization in IBD leads to two primary effects: restoration of epithelial barrier function and immunomodulation
 - HIF-1α expression leads to increases in genes known to promote epithelial integrity and mucosal barrier function
 - Additionally, HIF-1α is thought to be critical for regulatory immune cell function, and its stabilization can lead to reduced inflammation
- GBoo4 is gut-targeted, and has thus far avoided systemic effects of other PHD inhibitors, including erythropoiesis

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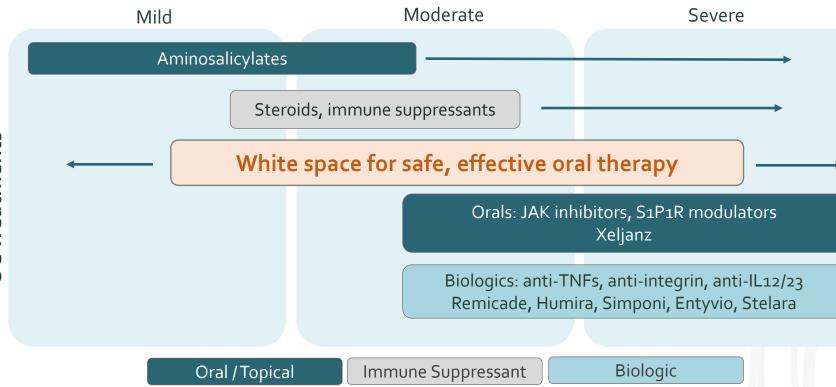
Oral GBoo4 Demonstrates Restitution of the Epithelial Barrier and Effects on Mucosal Healing in TNBS-Induced Colitis Model

CB00



* p<0.01 compared to all other groups

GBoo4 Represents a New, Potentially Transformative Approach in UC



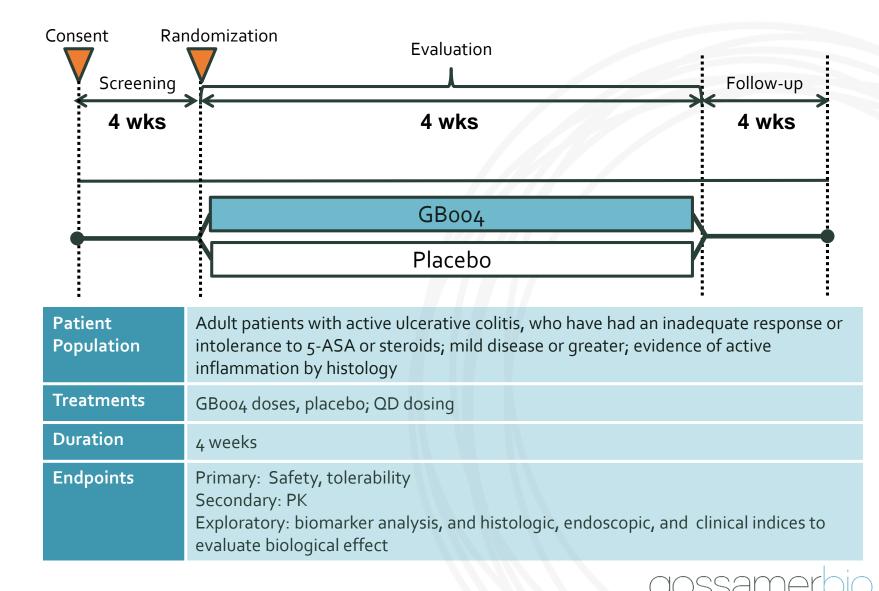
- Current IBD therapies typically target the "overactive" immune response
- Rates of clinical remission, mucosal healing, and durability remain suboptimal even with available therapies
- Development of GBoo4 will occur within the context of a changing treatment paradigm, evolving regulatory endpoints, competitive clinical trial environment, and the imperative for differentiation in a crowded market

Depending on clinical profile, GBoo4 is well suited as a pre-biologic therapy for the mild-moderate disease activity segment as monotherapy or in combination

Ongoing GBoo4 Phase 1b in Ulcerative Colitis to Allow for PK Assessment in Patients and Potential Initial Assessment of Biological Effect

A Phase 1b, signal seeking, placebocontrolled, dose-ranging study to evaluate the safety and pharmacokinetic profile of GBoo4 in adult patients with UC

> Status: Enrolling, Initiated Q2:2019





CD11b Modulator

Solid Tumors

GB1275: Opportunity to Improve Response to Cancer Therapy through Targeting Multiple Myeloid Immunosuppressive Mechanisms of Action

| Product Description | Oral, small molecule, CD11b modulator for the treatment of solid tumors IND submission filed with FDA, "safe to proceed" letter received Planned GB1275 Phase 1/2 trial, both as monotherapy and in combination with anti-PD-1, targeting selected solid tumors initiating in 2H 2019; Phase 1 readout expected in 2H 2020; Phase 2 readout expected in 2H 2021 |
|------------------------|---|
| | • Patent protection out to 2036 ⁽¹⁾ |

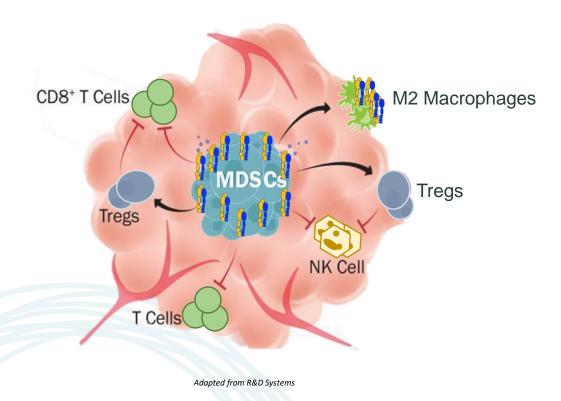
CB121

| | Disrupts multiple immunosuppressive myeloid cell subsets, including MDSCs and TAMs |
|----------------------------|--|
| Mechanism of Action and | Efficacy observed as single agent and synergistically in combination with chemotherapy and immuno-oncology therapies |
| Scientific Rationale | Preclinical data suggest differentiation from other approaches targeting immunosuppressive mechanisms |
| | Opportunity to target immuno-oncology resistant tumors including PDAC, CRC, TNBC, CRPC and others |

PDAC = pancreatic ductal adenocarcinoma; CRC = colorectal cancer; TNBC = triple negative breast cancer; CRPC = castrate-resistant prostate cancer, MDSC = myeloid-derived suppressor cells, TAM = tumor-associated macrophage.

Does not include available patent term extension. Corresponding patent(s) and patent application(s) with compound-specific claims.
 Total patent life with patent term extension cannot exceed 14 years from approval.

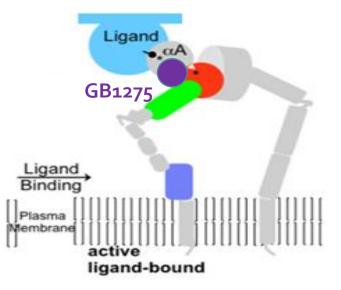
MDSCs and M2 Macrophages Generate an Immunosuppressive Tumor Microenvironment and Hinder Response to IO Agents



CD11b expressed on myeloid cells

- Monocytes
- Neutrophils
- MDSCs
- Tumor associated macrophages

- Targeting MDSCs or M2 macrophages is one of the key strategies to help overcome resistance to T-cell activating therapies in the clinic
- **GB1275** mediated CD11b modulation Impacts myeloid cell recruitment and macrophage polarization at the tumor site
- **GB1275** is a first-in-class agent that can impact both MDSCs and M2 TAMs in the tumor microenvironment



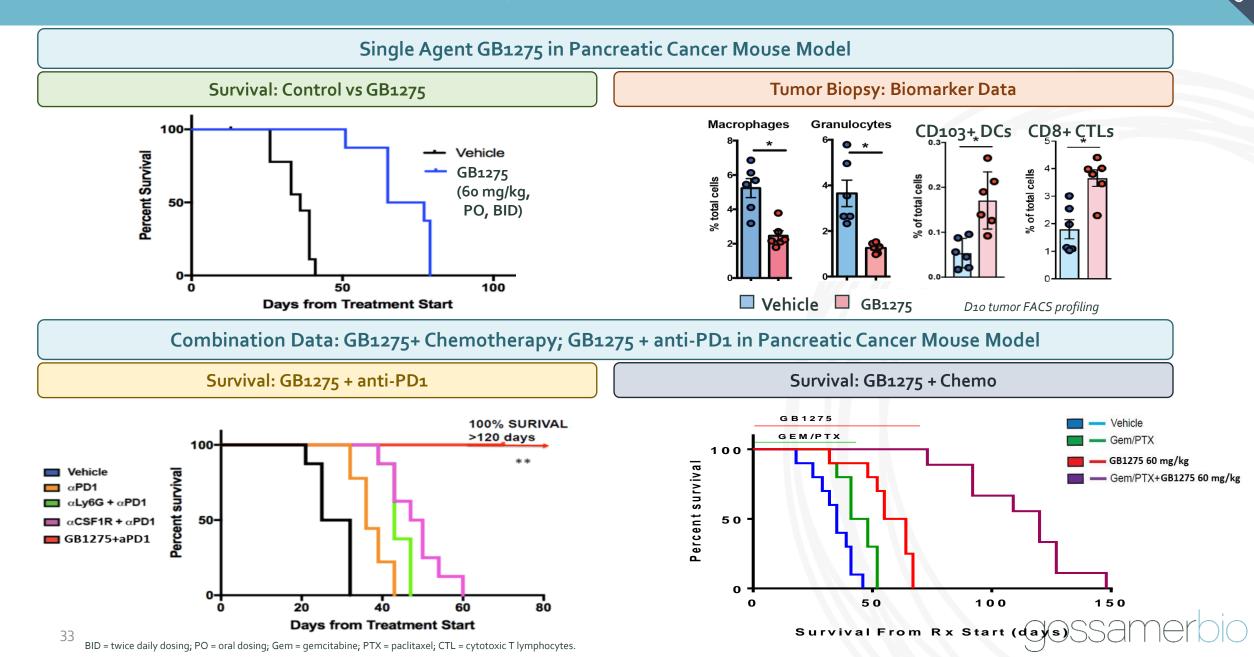
Mac1 = CD18/CD11b Integrin



GBS

32 MDSC = myeloid-derived suppressor cells; NK Cell = natural killer cells; Tregs = regulatory T cells.

GB1275 Pre-clinical Data: Single Agent and Combination Activity



CBY

A Phase 1/2, doseranging, signal seeking, clinical trial of GBoo2 in adult subjects with various types of solid tumors, including PDAC, gastric, esophageal, prostate, TNBC and CRC

Phase 1 of GB1275

3 Dose Escalations: Monotherapy Anti-PD1 combo Gem / Abraxane combo



Phase 2 of GB1275

CD PP.

3 Expansion Cohorts: 1L mPanc 2-4L MSS CRC 3-4L PDL1+ Gastric

Status: IND Cleared, Initiation in 2H 2019

| Patient Population | Targeting IO resistant tumor types including: Adult solid tumor patients with pancreatic cancer, gastric cancer, esophageal cancer, prostate cancer, triple negative breast cancer, and colorectal cancer |
|----------------------|--|
| Treatments | Multiple doses of GB1275 |
| Key Study Objectives | PK / PD, safety, tolerability, efficacy signals |



Financial Highlights and Milestones

Pro Forma Cash, Cash Equivalents and Marketable Securities

(As of 3/31/19, including \$11 million interest and securities receivable, pro forma for initial \$30mm tranche of debt facility, announced 5/2/19)

Debt

(Initial tranche of \$150 million debt facility, announced 5/2/19)

Debt Capacity (Remaining capacity of \$150 million debt facility, announced 5/2/19)⁽¹⁾

Common Shares Outstanding

(As of 5/2/19)

\$523mm

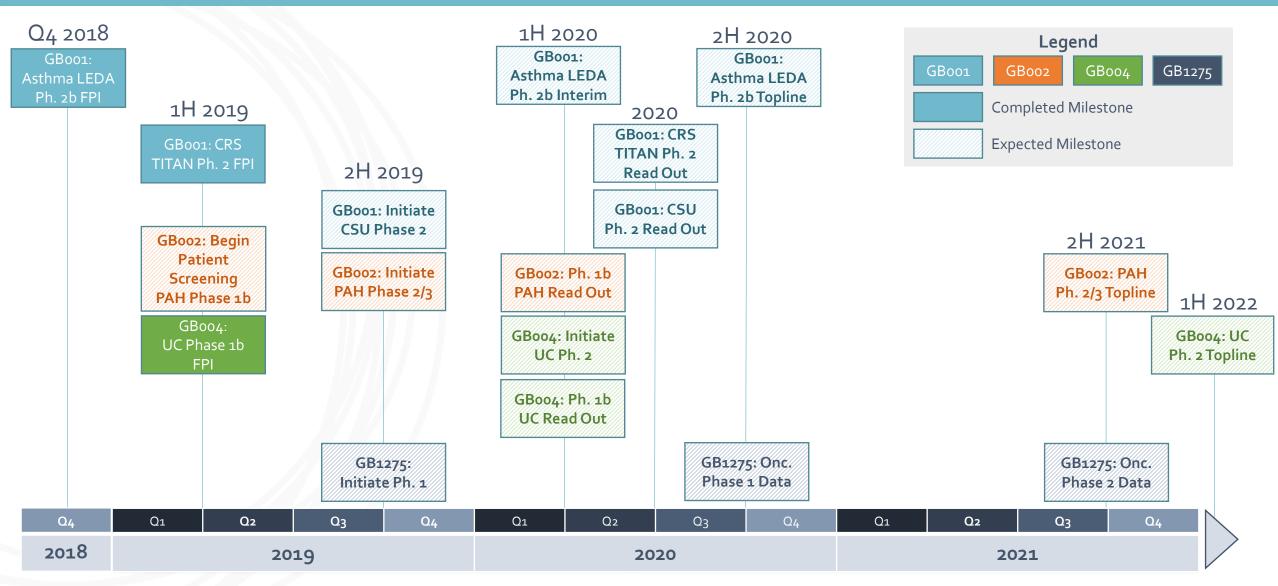
\$30mm

\$120MM

65.9mm



Multiple Near-Term Expected Clinical Trial Initiations and Readouts



37 Note: All trial bars and milestone flags are shown at the center of estimated timing. Trial initiation to occur at first patient dosed in trial. Ph. = Phase; Interim = interim analysis; FPI = first patient in, Onc.= oncology.

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