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): January 8, 2018

bluebird bio, Inc.
(Exact name of Registrant as Specified in Its Charter)

DELAWARE	001-35966	13-3680878
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)
60 Binney Street, Cambridge, MA (Address of Principal Executive Offices)		02142 (Zip Code)

Registrant's Telephone Number, Including Area Code: (339) 499-9300

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 (see General Instructions A.2. below):
☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
☐ 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 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 ☐

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. ☐

Item 2.02 Results of Operations and Financial Condition.

bluebird bio, Inc. (the "Company") intends to share with investors the number of shares outstanding as of December 31, 2017, and the amount of cash, cash equivalents and marketable securities it had on hand as of December 31, 2017. Although the Company has not finalized its financial results for the twelve months ended December 31, 2017, the Company currently anticipates that its cash, cash equivalents and marketable securities were approximately $1.6 billion as of December 31, 2017, with approximately 49.4 million shares outstanding as of December 31, 2017. This information is unaudited and does not present all information necessary for an understanding of the Company's financial condition as of December 31, 2017 and its results of operations for the twelve months ended December 31, 2017. The Company expects to announce its full results for the twelve months ended December 31, 2017 on or before March 1, 2018.

Item 7.01 Regulation FD Disclosure.

The Company will be conducting meetings with investors attending the 36th Annual J.P. Morgan Healthcare Conference in San Francisco beginning on January 8, 2018. As part of these meetings, the Company will deliver the slide presentation furnished to this report as Exhibit 99.1 and which is incorporated herein by reference.

See Item 2.02 above, which is incorporated by reference herein.

The information in this report furnished pursuant to Items 2.02 and 7.01 shall not be deemed "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. It may only be incorporated by reference in another filing under the Exchange Act or the Securities Act of 1933, as amended, if such subsequent filing specifically references the information furnished pursuant to Items 2.02 and 7.01 of this report.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Investor presentation furnished by bluebird bio, Inc. on January 8, 2018.

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: January 8, 2018

bluebird bio, Inc.

By:/s/ Jason F. Cole
Jason F. Cole
Chief Legal Officer

Exhibit 99.1

bluebirdbio®

PATH TO PATIENTS

36th Annual J.P. Morgan HEALTHCARE CONFERENCE

January 9, 2018

NASDAQ: BLUE

Forward Looking Statements

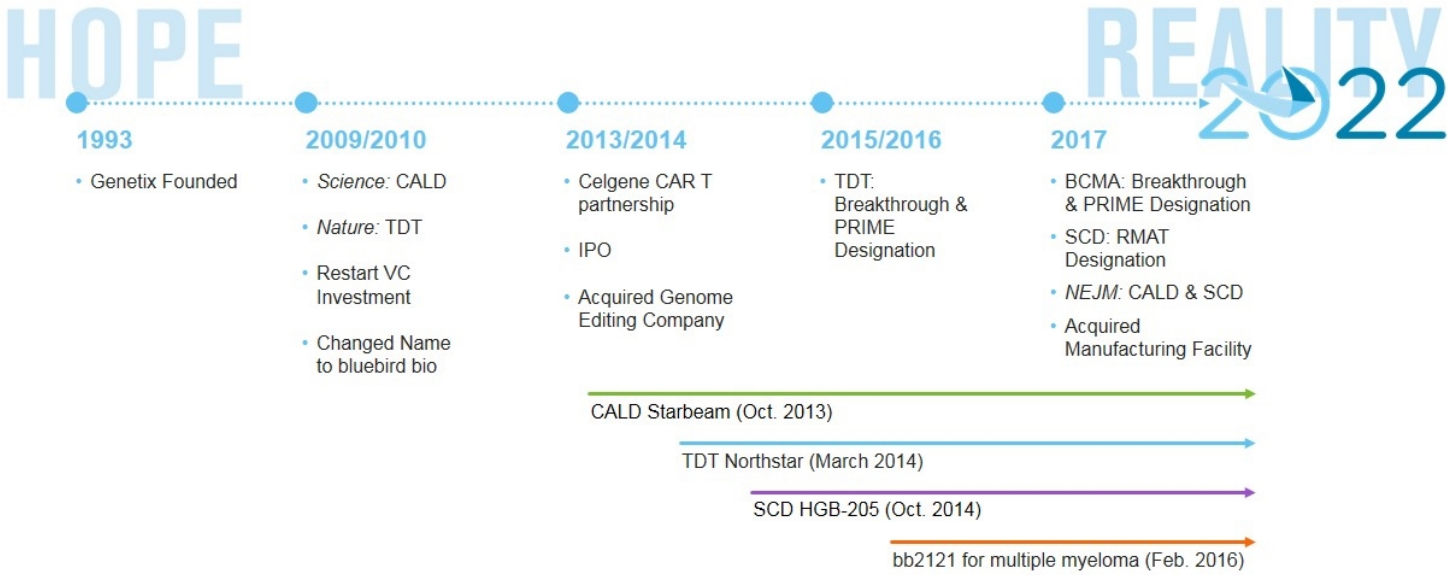
These slides and the accompanying oral presentation contain forward-looking statements and information. The use of words such as “may,” “might,” “will,” “should,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “project,” “intend,” “future,” “potential,” or “continue,” and other similar expressions are intended to identify forward-looking statements. For example, all statements we make regarding the initiation, timing, progress and results of our preclinical and clinical studies and our research and development programs, our ability to advance product candidates into, and successfully complete, clinical studies, and the timing or likelihood of regulatory filings and approvals are forward looking. All forward-looking statements are based on estimates and assumptions by our management that, although we believe to be reasonable, are inherently uncertain. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that we expected. These statements are also subject to a number of material risks and uncertainties that are described in our most recent quarterly report on Form 10-Q, as well as our subsequent filings with the Securities and Exchange Commission. Any forward-looking statement speaks only as of the date on which it was made. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by law.

Healthy Ecosystem for Transformative Gene Therapy

Our Focus. Our Imperatives.

Execute & Deliver	**Operate with discipline, urgency and healthy paranoia**
Scale & Reach	**Expand organization and capabilities to bring products to patients globally**
Lead The Way	**Lever product engine, capabilities and resources to solve challenges and unleash opportunities**
Stay BLUE	**Beat the regression odds. Believe in the WHY and act accordingly.**

Hopes & Dreams Becoming a Reality



Three Regulatory Filings Anticipated by End of 2019

2+ Products on the Market

2+ Programs Nearing Commercialization

4+ Additional Programs in the Clinic


trueblue
Making Hope
A Reality
bluemojo


trueblue
OUR PATIENTS
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Ethan's family spent nearly two years trying different medications and meeting with specialists to try and resolve his symptoms. Tragically, during this period, the ravaging effects of ALD were continuing to damage Ethan's brain and adrenal glands.

Ethan Zakes 2000 - 2011

Source: Ethan Zakes Foundation

Cerebral Adrenoleukodystrophy

- Severe, often fatal neurological disease in boys

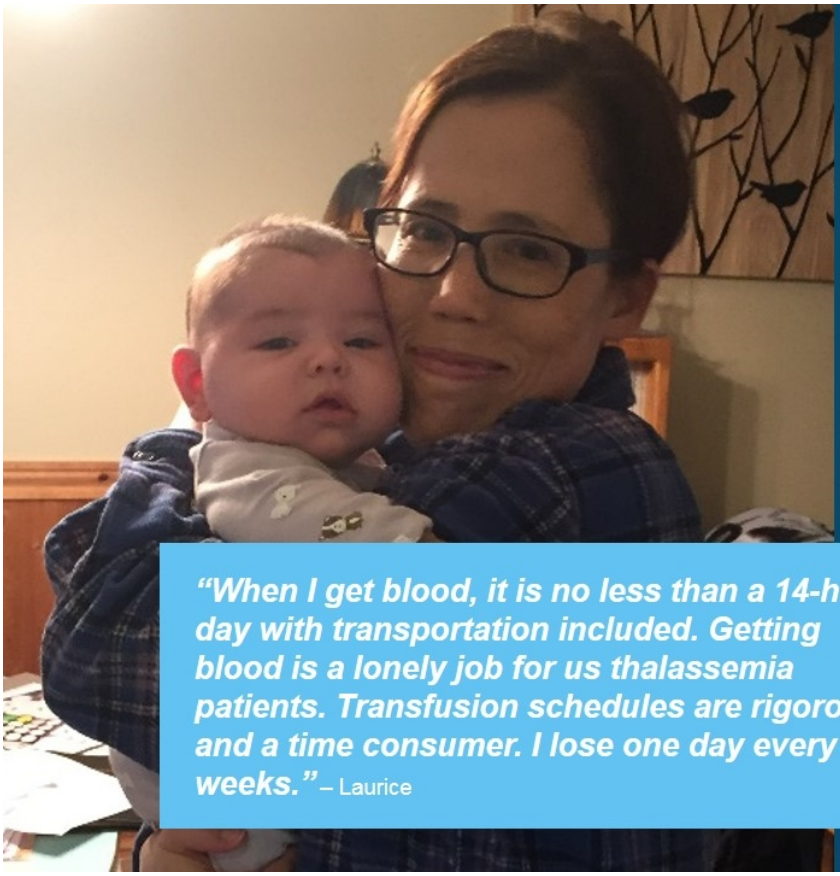
STATUS

- 15/17 patients hit the primary endpoint so far
- Newborn screening active in 5 states[1]

NEXT STEPS

- Expanding study to enroll total of 30 patients
- Anticipated filing in 2019

[1]Salzman, R., Kemp, S. (2017, December 06) Newborn Screening. Retrieved from http://adrenoleukodystrophy.info/clinical-diagnosis/newborn-screening



"When I get blood, it is no less than a 14-hour day with transportation included. Getting blood is a lonely job for us thalassemia patients. Transfusion schedules are rigorous and a time consumer. I lose one day every two weeks." – Laurice

Transfusion-dependent β-thalassemia

- Inherited blood disease that requires lifelong, frequent blood transfusions and iron reduction therapy

STATUS

- Majority of patients with non-β^0/β^0 genotype are free of transfusions
- Refined manufacturing leading to robust increase in HbA^{T87Q}
- 3+ years durability of effect in early studies

NEXT STEPS

- Anticipated first regulatory filing in EU in patients with non-β^0/β^0 genotypes in 2018

"I experienced my first sickle crisis requiring hospitalization at age 5. Since then I've endured hundreds of hospitalizations, blood transfusions and surgical procedures. Despite the devastating symptoms of sickle cell, I was determined to complete my educational goals." - Lakiea

Source: Global Genes

Severe Sickle Cell Disease

- Severe blood disorder that leads to anemia, frequent pain crises and shortened lifespan

STATUS

- Revised study protocol has yielded significant increase in anti-sickling hemoglobin
- Shift to plerixafor-based cell collection providing more and better cells; easier for patients

NEXT STEPS

- Complete 206 study
- Define clinical development and regulatory path

"When I was diagnosed and realized that there was an empty pipeline… I knew I needed to do something — not only for myself and my family, but for everyone else with this 'orphan cancer'. I desperately wanted my daughter to remember me and thought that if I lived for five years, maybe she would have memories of her mom." - Kathy Giusti, Founder, MMRF

Multiple Myeloma (BCMA)

- A lethal blood cancer that often infiltrates the bone marrow causing anemia, kidney failure, immune problems and bone fractures

STATUS

- 94% ORR, 56% CR
- 89% VGPR or better
- Median PFS not reached with 40 weeks follow up

NEXT STEPS

- Complete pivotal study
- Initiate studies in earlier lines
- Anticipated US and EU filings in 2019


bluemojo
OUR PEOPLE
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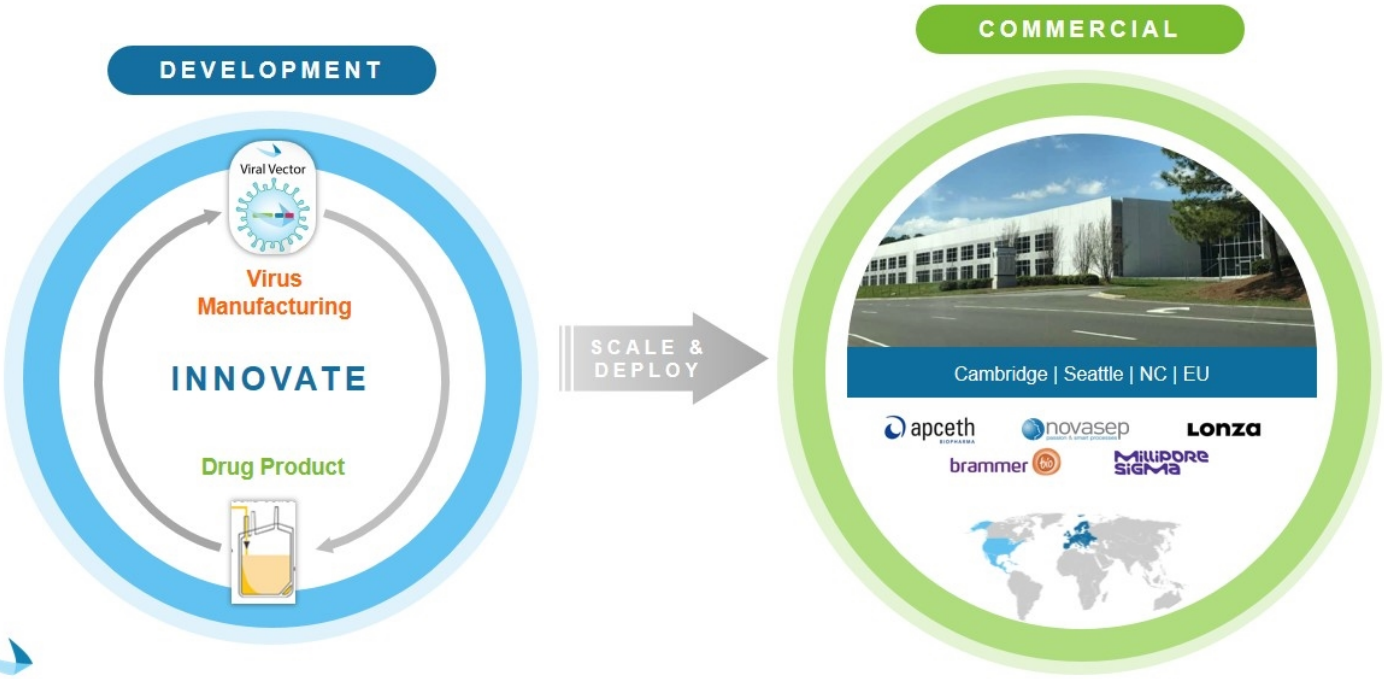
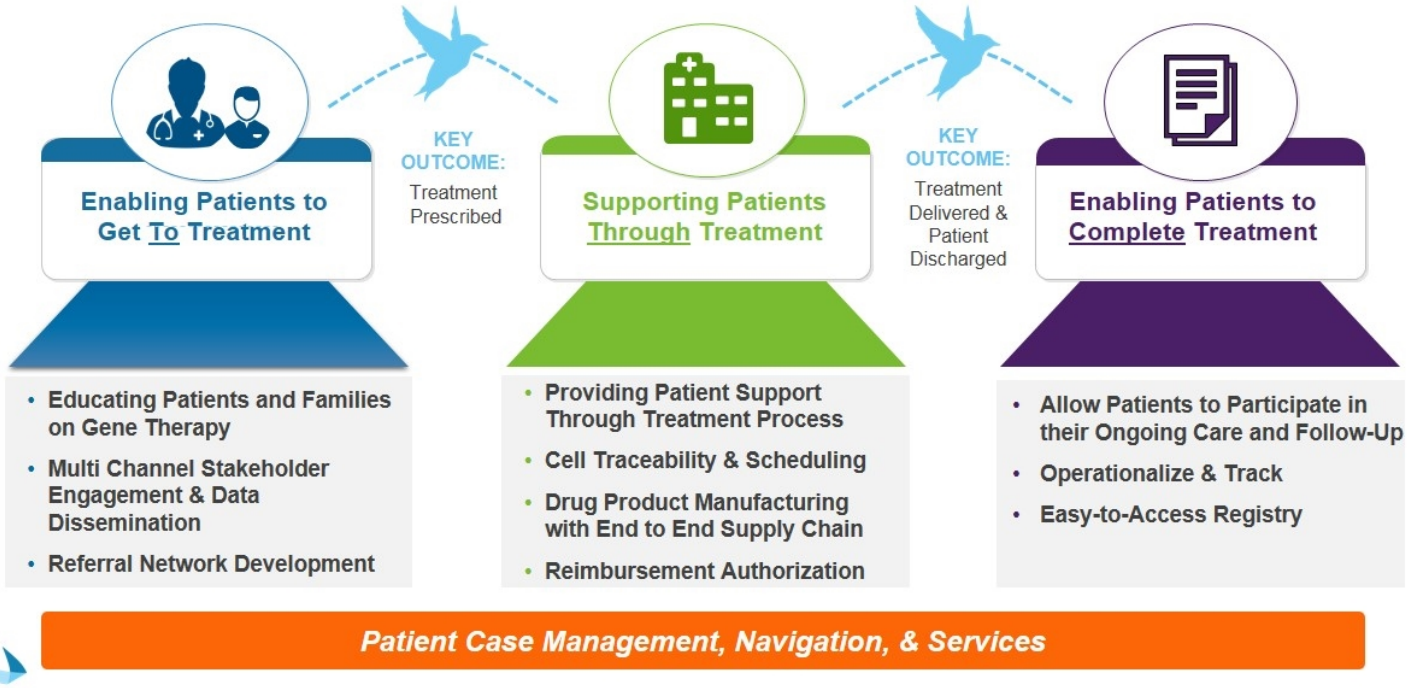
Driving the Product Platform to Reality for Patients

Make & Scale It: Focused on Transitioning from Development to Commercial



Deliver It: The Best Possible Provider, Payer and Patient Experience



Value It: Time to Get It Right

The value our products bring to patients should stand on its own for all stakeholders

Value It : Quick Answer is Value Based Payment Over Time

BLUE "VALUE" PRINCIPLES

- Be focused on patient access to innovation
- Be creative and disruptive (if needed)
- Be flexible and share risk
- Be transparent and proactive with stakeholders
- Be proud
- Don't do stupid short sighted stuff!

CONSTRAINTS & AMBITIONS

UNMET NEED

- Heighten awareness of true unmet need in terms of impact on life expectancy and cost

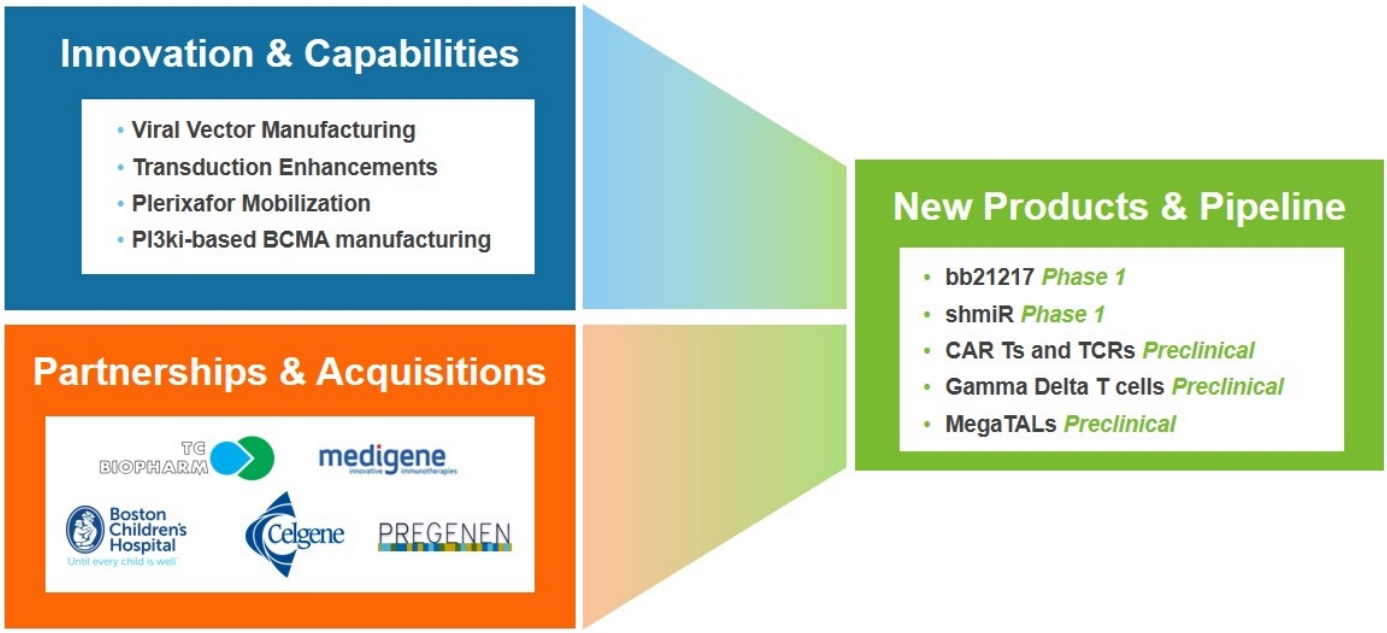
VALUE EVIDENCE

- Deliver credible and rigorous value platform arguments/data for value

PAYMENT MODELS

- "Free Up" system to recognize value over time
- "Buy time" to prove enduring value
- Fix cost density constraint
- Fix policy constraints (e.g., best price)
- Fix "portability of cure" concern

Lever It: Experience, Capabilities and Partnerships Driving Pipeline Expansion



Our Quest to Constantly Innovate Continues

Product Candidates	Program Area	Preclinical	Phase 1/2	Phase 2/3	Rights/Partner
	Severe Genetic Diseases				
Lenti-D™ Drug Product	Cerebral ALD				Worldwide
LentiGlobin® Drug Product	Transfusion-Dependent ß-thalassemia			(Phase 3)	Worldwide
	Severe Sickle Cell Disease				Worldwide
BCL11a shRNA(miR)*	Severe Sickle Cell Disease				Worldwide
	Cancer				
bb2121	Multiple Myeloma				Celgene
bb21217	Multiple Myeloma				Celgene
Undisclosed Targets	Various Indications				Worldwide
	Early Research				
Early Pipeline	Undisclosed + Gene Editing				Worldwide

*Development is led by Boston Children's Hospital

COLLABORATORS

Boston Children's Hospital
Until every child is well

Celgene

TC BIOPHARM

medigene
innovative immunotherapies

2018 Milestones

BY MID YEAR**

- TDT: Northstar-2 (HGB-207) Data
- MM: CRB-401 (bb2121) Data
- SCD: BCL11A shRNA Study Start

BY END OF YEAR**

- TDT: EMA Filing in Non-β^0/β^0 Genotypes
- TDT: Northstar-3 (HGB-212) Data
- SCD: HGB-206 Data
- SCD: Registration Strategy Update
- MM: Initiate 3rd Line Study*; bb21217 Data
- CALD: Starbeam (ALD-102) Data

$1.6 Billion Cash Runway into 2021

49.4m shares outstanding as of 12/31/17

Cash, cash equivalents and marketable securities (unaudited) as of 12/31/2017. Cash runway guidance is based on current assumptions as of the date thereof and does not include the effect of potential license and collaboration agreements, business combinations or asset acquisitions.

*Celgene Responsibility
**Anticipated Clinical Data Updates

Path to Patients

Three Regulatory Filings Anticipated by End of 2019

2+ Products on the Market

2+ Programs Nearing Commercialization

4+ Additional Programs in the Clinic