## 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

February 13, 2019

(Date of Report - date of earliest event reported)

#### **Arbutus Biopharma Corporation**

(Exact Name of Registrant as Specified in Its Charter)

British Columbia, Canada (State or Other Jurisdiction of Incorporation or Organization) 001-34949 (Commission File Number) 98-0597776 (I.R.S. Employer Identification No.)

100-8900 Glenlyon Parkway Burnaby, British Columbia, Canada (Address of Principal Executive Offices)

V5J 5J8 (Zip Code)

(604) 419-3200

(Registrant's Telephone Number, Including Area Code)

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 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

Emerging growth company o

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, o

#### Item 2.02. Results of Operations and Financial Condition.

On February 13, 2019, Arbutus Biopharma Corporation (the "Company") disclosed in an updated corporate presentation that, although it has not finalized its full financial results for the year ended December 31, 2018, it expects to report that it had \$124.6 million of cash, cash equivalents and short-term investments as of December 31, 2018. The amount is preliminary, has not been audited and is subject to change upon completion of the Company's audited financial statements for the year ended December 31, 2018. Additional information and disclosures would be required for a more complete understanding of the Company's financial position and results of operations as of December 31, 2018.

The information provided pursuant to this Item 2.02 is "furnished" and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that Section or of Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended, and shall not be incorporated by reference into any filing with the Securities and Exchange Commission ("SEC") made by the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

#### Forward-Looking Statements

This report may contain forward-looking statements, including, but not limited to, statements regarding the Company's anticipated cash position as of December 31, 2018. These forward-looking statements are subject to a number of risks and uncertainties including changes in estimated cash position based on the completion of financial closing procedures and the risk factors set forth from time to time in the Company's SEC filings including, but not limited to, its annual report on Form 10-K for the fiscal year ended December 31, 2017 and its subsequent quarterly reports on Form 10-Q, which are available at www.sec.gov. Any forward-looking statements set forth in this report speak only as of the date of this report. We do not intend to update any of these forward-looking statements to reflect events or circumstances that occur after the date hereof other than as required by law. You are cautioned not to place undue reliance on any forward-looking statements. Information contained on the Company's website does not constitute part of this report.

#### Item 8.01. Other Events.

On February 13, 2019, the Company posted an updated corporate presentation on its website at www.arbutusbio.com. A copy of the presentation is filed herewith as Exhibit 99.1 and is incorporated by reference herein

#### Item 9.01 Financial Statements and Exhibits

(d) Exhibits.

Exhibit Number	Description
99.1	Corporate presentation dated February 13, 2019.

#### 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: February 13, 2019

#### ARBUTUS BIOPHARMA CORPORATION

By: /s/David C. Hastings
Name: David C. Hastings
Title: Chief Financial Officer





# Singularly Focused on HBV

Corporate Overview | February 2019

NASDAQ: ABUS www.arbutusbio.com

#### Forward-Looking **Statements**

This presentation contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and Canadian securities laws. All statements that are not historical facts are hereby identified as forward-looking statements for this purpose and include, among others, statements relating to: the potential for HBV to have a larger market opportunity than HCV; our ability meet a significant unmet medical need; our anticipated cash position as of December 31, 2018; the sufficiency of our cash and cash equivalents to extend into 2020; our ability to develop a curative regimen for HBV and unlock significant market growth opportunities; the potential of our drugs to improve patient outcomes; our expectation for top-line data from the Phase 1a/1b clinical study of AB-506 in Q2 2019; our expectation to initiate a Phase 1a/1b clinical study of AB-729 in Q2 2019; our expectation to make a decision regarding AB-452 clinical development in Q3 2019; our expectation to initiate HBV patient dosing on AB-729 in 2H 2019; our expectation to initiate a Phase 2 clinical study of AB-506 in Q4 2019; the trajectory for inclusion of AB-506 in a multi-drug combination regimen with AB-729 in 1H 2020; and the timeline to a combination cure for HBV.

With respect to the forward-looking statements contained in this presentation, Arbutus has made numerous assumptions regarding, among other things: the timely receipt of expected payments; the effectiveness and timeliness of preclinical and clinical trials, and the usefulness of the data; the continued demand for Arbutus' assets; and the stability of economic and market conditions. While Arbutus considers these assumptions to be reasonable, these assumptions are inherently subject to significant business, economic, competitive, market and social uncertainties and contingencies. Forward-looking statements herein involve known and unknown risks, uncertainties and other factors that may cause the actual results, events or developments to be materially different from any future results, events or developments expressed or implied by such forward-looking statements. Such factors include, among others: anticipated pre-clinical and clinical trials may be more costly or take longer to complete than anticipated, and may never be initiated or completed, or may not generate results that warrant future development of the tested drug candidate; Arbutus may not receive the necessary regulatory approvals for the clinical development of Arbutus' products; economic and market conditions may worsen; changes in estimated cash position based on the completion of financial closing procedures; and market shifts may require a change in strategic focus. A more complete discussion of the risks and uncertainties facing Arbutus appears in Arbutus' Annual Report on Form 10-K and Arbutus' periodic disclosure filings which are available at www.sec.gov and at www.secdar.com.

The forward-looking statements made in connection with this presentation represent our views only as of the date of this presentation (or any earlier date indicated in such statement). While we may update certain forward-looking statements from time to time, we specifically disclaim any obligation to do so, even if new information becomes available in the future.



#### **Investment Highlights**

Singular therapeutic focus - curing chronic Hepatitis B Virus (HBV)

Significant unmet medical need in HBV

> Global HBV prevalence double that of **HCV**, potential for larger market opportunity

Team with antiviral expertise/proven track record

Applying knowledge gained from HCV success to find HBV cure through proprietary drug combinations

**Most Robust HBV Pipeline** 

**HBV** assets generating clinical data, leading to clinical combination

Strong **Financial Position** 

\$125M (unaudited) cash at 12/31/18\* extends into 2020 **Onpattro royalty** entitlement represents potential non-dilutive capital

Genevant provides value from delivery technology

Strategic decision to spin out LNP and conjugate delivery technologies to support new RNA therapeutics company



HCV: Hepatitis C Virus | LNP: Lipid Nanoparticle
\*While we have not finalized our full financial results for the fiscal year ended December 31, 2018, we expect to report that we had approximately \$124.6 million of cash, cash equivalents and short-term investments as of December 31, 2018. This amount is preliminary, has not been audited and is subject to change pending completion of our audited financial statements for the fiscal year ended December 31, 2018. Additional information and disclosures would be required for a more complete understanding of our financial position and results of operations as of December 31, 2018.

## **Proven** Leadership **Team**

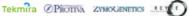
Successful track records in both the discovery and development of multiple antivirals: sofosbuvir etravirine, rilpivirine, telaprevir and simeprevir



**President & CEO** 













Gaston Picchio, PhD **Chief Development Officer** 





**David C. Hastings** 

**Chief Financial Officer** 









Michael J. Sofia, PhD

**Chief Scientific Officer** 











HCV: Hepatitis C Virus | HBV: Hepatitis B Virus

## Significant Opportunity

## To Improve HBV Cure Rates

HBV cures are achievable with today's SOC in <5% of patients. Sustained HBsAg and HBV DNA\* loss off-treatment is rare.

\*HBsAg & HBV DNA: endpoints accepted as a cure.



#### **SOC THERAPIES FOR CHRONIC HBV**

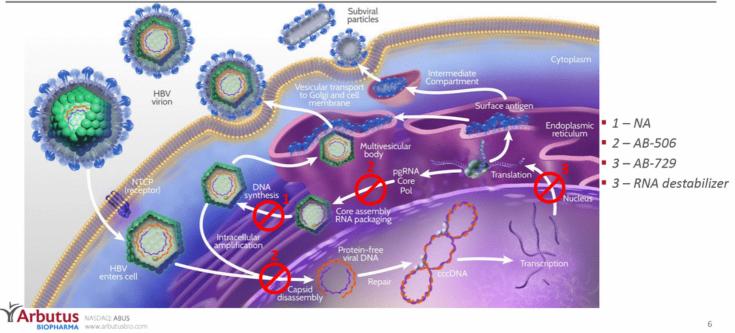
	Pegasys (PegIFN)	Baraclude (Entecavir)	Viread (TDF)	New HBV Therapies
Dosing Duration	48-weeks	Chronic	Chronic	Undetectable HBV DNA
HBV DNA Undetectable	14-19%	67-90%	76-93%	rate of HBsAg Loss
HBsAg Loss	~3-4%	~1-2%	~1-3%	HIGHER CURES RATES

Achievable HBV Cure Rates with Current SOC

SOC: Standard Of Care | HBsAg: HBV Surface Antigen | PegIFN: Pegylated Interferon Source: EASL HBV Clinical Practice Guidelines, 2012 - Pegasys, Baraclude and Viread Package Inserts

## **HBV Lifecycle Illustrates Key Points for Intervention**

A combination of agents with complementary MOA is needed to cure HBV

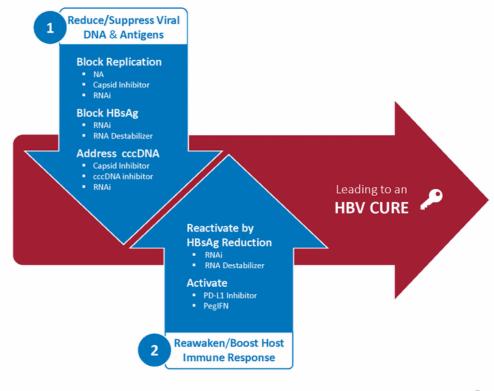


## Keys to Therapeutic Success

- Suppress HBV DNA and viral antigens
- Reawaken host immune response

Therapeutic success will require a combination of drugs with complementary MOAs.





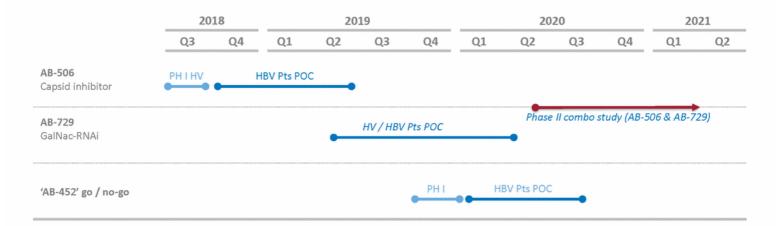
MOA: Mechanism Of Action | NA: Nucleot(s)ide Analog | PegIFN: Pegylated Interferon | HBsAg: HBV Surface Antigen

## **Arbutus HBV Pipeline**



#### Path to a Combination Cure

Drive to undetectable HBV DNA and HBsAg



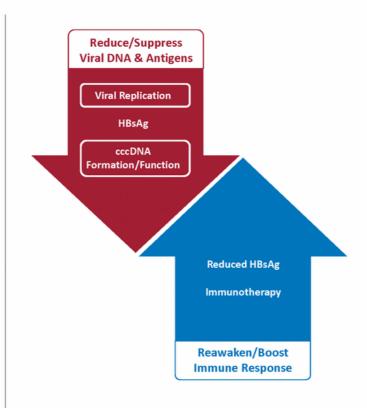


# Capsid Inhibitor: Blocking Viral Replication

Driving HBV DNA to undetectable is a key to therapeutic success in HBV

- in the serum and
- in the liver





## **Capsid Inhibitors – Dual Action HBV Antiviral Agent**

MOA, distinct from but complementary to approved SOC NAs.

Capsid + NA combination **drives deeper HBV DNA reductions** 

#### **Competitive Landscape**

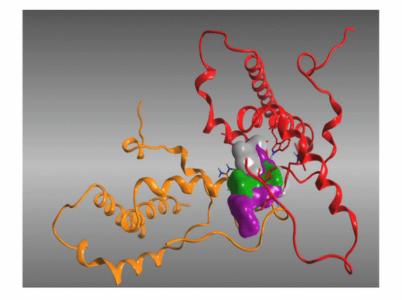
All capsid inhibitors bind to the same site on HBV Core protein

#### All have a dual MOA:

- Block DNA replication by inhibiting capsid assembly
- Block new cccDNA formation by inhibiting viral uncoating

#### **Differentiation**

 Clinical success will require potency, PK and combination with HBsAg targeting agent





### AB-506 – Capsid Inhibitor

AB-506 shows preclinical potency and PK profile consistent with best in class agents

- Active across multiple genotypes and against NA resistant variants
- Once daily dosing
- Complementary with HBsAg targeting agents

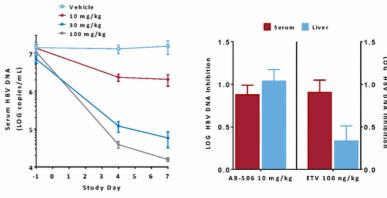
#### Clinical Development

- Top-line data from Phase 1 a / 1 b Q2 '19
- Inclusion with AB-729 in a combination regimen 1H '20
- Phase 2 initiation Q4'19, inform combination regimen
  - Dose finding (w/ NA)
  - · Establish long term safety (w/ NA)
  - Determine long term impact on uncoating and cccDNA formation / HBsAg



PK: Pharmacokinetics | ETV: Entecavir

## AB-506 Potently Reduces HBV DNA in Serum and Inhibits Liver HBV DNA more than ETV



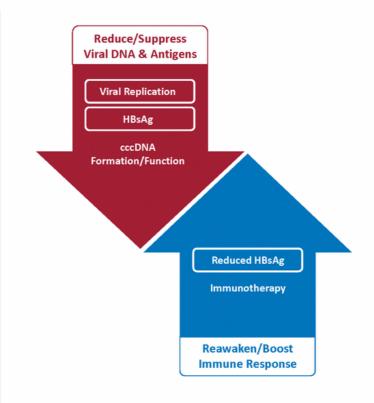
In vivo antiviral activity of AB-506. A) Reduction in serum HBV DNA is dose responsive following AB-506 administration. B) AB-506 surpassed ETV at inhibiting liver HBV DNA, at dosages where the serum HBV DNA inhibition was equivalent (data relative to vehicle at Day 7)

# **Driving Down HBsAg**

## Is A Key to Therapeutic Success in HBV

- Replication inhibitors do not block HBsAg production
- HBsAg is responsible for immune exhaustion





### AB-452 and RNA Destabilizer Program

Multiple evaluations underway to clarify AB-452 and RNA destabilizer program next steps

#### Completed:

- √ IND enabling studies and 28 day toxicology, in two species, supporting initial clinical studies
- ✓ AB-452 mechanism of action studies demonstrate AB-452 causes HBV mRNA poly A tail shortening
- ✓ Host protein pull-down experiments to identify host target protein
- ✓ Host gene expression studies indicating that AB-452 has no detectable effect on host cell mRNAs

#### Ongoing:

- In vitro target engagement and target-based cell viability evaluations
- Specialized, additional in vitro and in vivo non-clinical safety assessments
- In depth DMPK evaluations
- Multiple small molecule chemotypes under investigation to maximize program opportunity
- Anticipated go/no go decision for AB-452 clinical development in 2H 2019



### AB-729 - RNAi Therapeutic

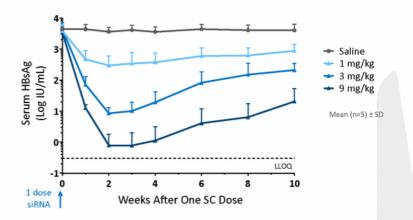
- Proprietary GalNAc-conjugate delivery technology
  - Liver targeting for efficient hepatocyte uptake
  - Enables subcutaneous dosing
- Single trigger RNAi agent targeting all HBV transcripts
- Inhibits HBV replication and lowers all HBV antigens
  - Potent HBsAg reduction in preclinical models
- Pan-genotypic activity across HBV genotypes A to D
- Duration of HBsAg reduction supports once per month dosing
- "IND" enabling studies underway
- Initiation of clinical studies Q2 2019





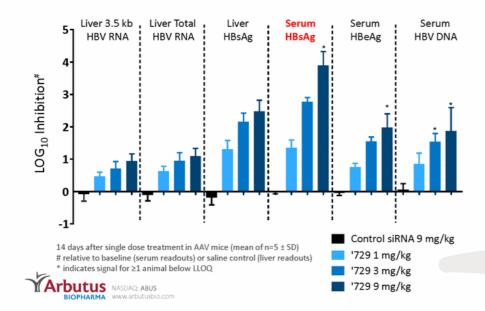
## AB-729 - In Vivo Single Dose Response & Duration

- Clear dose response in AAV mouse model
- Achieves maximal HBsAg reduction possible in this model
- Duration supports a clinical dosing frequency of once per month





## Inhibition of Multiple HBV Markers by AB-729 In Vivo



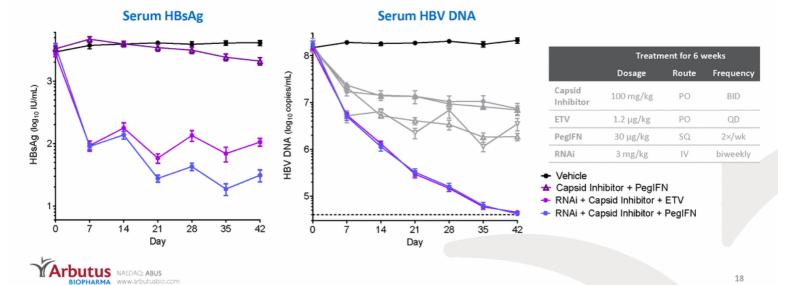
## Results validate RNAi mechanism of action

- Dose response reductions of all measured HBV markers in liver and serum
  - HBsAg
  - HBV RNA
  - HBV eAg
  - HBV DNA

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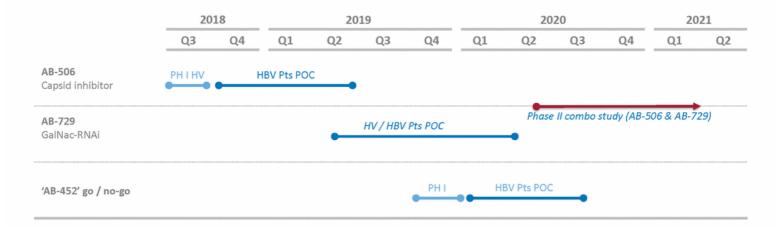
## **Preclinical Combination In Humanized Mouse Model**

RNAi + Capsid inhibitor containing regimens result in HBV DNA and HBsAg reductions



#### Path to a Combination Cure

Drive to undetectable HBV DNA and HBsAg





## **Key Catalysts for 2019**

2Q 2019 2H 2019 AB-729 AB-452 AB-729 AB-506 AB-506 Initiation of **RNA Destabilizer** Initiation of HBV Initiation of Top line Phase Phase 1a/1b subject dosing Phase 2 study program update 1a/1b data study

