



# gritstone

ONCOLOGY

## **Gritstone Oncology and Arbutus Biopharma Announce LNP Technology Licensing Agreement to Develop Novel RNA-Based Personalized Neoantigen Immunotherapies for Cancer Patients**

October 18, 2017

**Vancouver, BC; Warminster, PA; and Emeryville, CA, October 18, 2017** — Arbutus Biopharma Corporation (Nasdaq: ABUS), an industry-leading hepatitis B virus (HBV) therapeutic solutions company, and Gritstone Oncology, a leader in personalized cancer immunotherapies, today announced a collaboration and license agreement. Arbutus is deploying its proprietary lipid nanoparticle (LNP) technology to deliver Gritstone's RNA-based neoantigen immunotherapy products.

Under the terms of this license agreement, Gritstone obtains worldwide access to Arbutus' portfolio of proprietary and clinically validated LNP products and associated intellectual property. Gritstone will pay Arbutus an upfront payment, payments for achievement of development, regulatory, and commercial milestones, as well as royalties. In addition, Gritstone will reimburse Arbutus for conducting technology development and providing manufacturing and regulatory support for Gritstone's product candidates. The license is specifically directed to the novel RNA-based platform for neoantigen immunotherapies.

"The recent phase III validation of Arbutus' LNP platform makes them the natural partner for Gritstone as we drive our proprietary two-component immunotherapy program into the clinic in mid-2018," said Andrew Allen, M.D., Ph.D., president and chief executive officer of Gritstone Oncology. "Successful exploratory preclinical work with Arbutus fueled a strong bilateral desire to formalize and extend our relationship. We're excited to continue our work with the team at Arbutus and its LNP technology as we advance our pipeline of immunotherapy product candidates."

"This agreement again represents validation of our industry-leading LNP technology. We are excited to be working with Gritstone to advance their innovative personalized immunotherapies for the treatment of cancer," said Dr. Mark J. Murray, Arbutus' president and chief executive officer. "This transaction is part of realizing the value of our LNP platform, which has broad potential to deliver nucleic acid-based products including mRNA and gene editing therapeutics, and enable Arbutus to continue to focus on development of curative therapies for HBV."

### **About Arbutus Biopharma**

Arbutus Biopharma Corporation is a biopharmaceutical company dedicated to discovering, developing and commercializing a cure for patients suffering from chronic HBV infection. Arbutus is headquartered in Vancouver, BC, and has facilities in Warminster, PA. For more information, please visit [www.arbutusbio.com](http://www.arbutusbio.com).

### **About Gritstone Oncology**

Gritstone Oncology is a privately-held, next-generation personalized cancer immunotherapy company. Gritstone brings together distinguished scientific founders, an experienced and diverse management team, a seasoned and successful board of directors and deep financial backing to tackle fundamental challenges at the intersection of cancer genomics, immunology, and immunotherapy design. The Company's initial goal is to leverage deep learning to identify and deploy therapeutic neoantigens from individual patients' tumors to develop novel treatments for lung and gastric cancer. In addition to neoantigen therapy development, Gritstone is leveraging its unique antigen discovery platform to define targets for shared antigen immunotherapies, which would provide an opportunity to treat even more patients. Gritstone Oncology is headquartered in the San Francisco Bay Area with key functions located in Cambridge, MA and Pleasanton, CA. The company launched in October 2015 and has received funding from leading blue-chip biotechnology investors, including Versant Ventures, The Column Group, Clarus Funds, Frazier Healthcare Partners, RedMile, Casdin Capital, Lilly Asia Ventures, Trinitas Capital, GV, and Alexandria Venture Investments. More information can be found at [www.gritstoneoncology.com](http://www.gritstoneoncology.com) or @gritstoneonc.

### **Forward-Looking Statements and Information**

This press release contains forward-looking statements within the meaning of the Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and forward looking information within the meaning of Canadian securities laws (collectively, "forward-looking statements"). Forward-looking statements in this press release include statements about deploying Arbutus' proprietary lipid nanoparticle (LNP) technology to deliver Gritstone's RNA-based neoantigen immunotherapy products; Gritstone paying Arbutus an upfront payment, payments for achievement of development, regulatory, and commercial milestones, as well as royalties; Gritstone reimbursing Arbutus for conducting technology development and providing manufacturing and regulatory support for Gritstone's product candidates; the potential of Arbutus' LNP platform to deliver nucleic acid-based products including mRNA and gene editing therapeutics; and discovering, developing and commercializing a cure for chronic hepatitis B virus (HBV) infection.

With respect to the forward-looking statements contained in this press release, Arbutus has made numerous assumptions regarding, among other things: the successful implementation of the collaboration and license agreement; the continued demand for Arbutus' assets, including its LNP technology; 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.

Additionally, there are known and unknown risk factors which could cause Arbutus' actual results, performance or achievements to be materially

different from any future results, performance or achievements expressed or implied by the forward-looking statements contained herein. Known risk factors include, among others: the collaboration and license agreement may not be implemented to the extent expected, if at all; demand for Arbutus' assets may lower; economic and market conditions may worsen; 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' continuous disclosure filings, which are available at [www.sedar.com](http://www.sedar.com) and at [www.sec.gov](http://www.sec.gov). All forward-looking statements herein are qualified in their entirety by this cautionary statement, and Arbutus disclaims any obligation to revise or update any such forward-looking statements or to publicly announce the result of any revisions to any of the forward-looking statements contained herein to reflect future results, events or developments, except as required by law.

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