NUVO PHARMACEUTICALS™ INC.

ANNUAL INFORMATION FORM

March 28, 2019

Table of Contents

CERTAIN REFERENCES

Unless otherwise noted, the information contained in this Annual Information Form (AIF) is provided as at December 31, 2018 or for the period ended December 31, 2018 as applicable.

For an explanation of key terms, please refer to the "Glossary of Terms" at the end of this AIF. Unless otherwise noted, or indicated by context, "Nuvo Pharmaceuticals Inc.", "Nuvo", and the "Company" refers to Nuvo Pharmaceuticals Inc. and its subsidiaries, unless the context requires otherwise.

All dollar amounts are expressed in Canadian dollars unless otherwise noted.

FORWARD-LOOKING INFORMATION

This AIF contains "forward-looking information" as defined under Canadian securities laws (collectively, "forward-looking statements"). This document should be read in conjunction with the Company's other publicly filed documents. Forward-looking statements appear in this AIF and include, but are not limited to, statements which reflect management's expectations regarding objectives, plans, goals, strategies, future growth, results of operations, performance, business prospects, opportunities and macroeconomic and industry trends.

The words "plans", "expects", "does not expect", "goals", "seek", "strategy", "future", "estimates", "intends", "anticipates", "does not anticipate", "projected", "believes" or variations of such words and phrases or statements to the effect that certain actions, events or results "may", "will", "could", "would", "should", "might", "likely", "occur", "be achieved" or "continue" and similar expressions identify forward-looking statements. In addition, any statements that refer to expectations, intentions, projections or other characterizations of future events or circumstances contain forward-looking statements. Forward-looking statements are not historical facts but instead represent management's expectations, estimates and projections regarding future events or circumstances. Such forward-looking statements are qualified in their entirety by the inherent risks, uncertainties and changes in circumstances surrounding future expectations which are difficult to predict and many of which are beyond the control of the Company.

Forward-looking statements are necessarily based on a number of estimates and assumptions that, while considered reasonable by management of the Company as of the date of this AIF, are inherently subject to significant business, economic and competitive uncertainties and contingencies. The Company's estimates, beliefs and assumptions, which may prove to be incorrect, include the various assumptions set forth herein, including, but not limited to, the Company's future growth potential, results of operations, future prospects and opportunities, industry trends, legislative or regulatory matters, future levels of indebtedness, availability of capital and current economic conditions.

When relying on forward-looking statements to make decisions, the Company cautions readers not to place undue reliance on these statements, as forward-looking statements involve significant risks and uncertainties. Forward-looking statements should not be read as guarantees of future performance or results and will not necessarily be accurate indications of whether or not the times at or by which such performance or results will be achieved. A number of factors could cause actual results to differ, possibly materially, from the results discussed in the forward-looking statements, including, but not limited to:

- the Company's ability to execute its growth strategies;
- the impact of changing conditions in the regulatory environment and drug development processes;
- increasing competition in the industries in which Nuvo operates;
- the Company's ability to meet its debt commitments;
- the impact of unexpected product liability matters;
- the impact of changes in relationships with customers and suppliers;
- the degree of intellectual property protection currently afforded to the Company's products;
- the degree of market acceptance of the Company's products;
- changes in prevailing economic conditions;
- developments and changes in applicable laws and regulations; and
- such other factors discussed under "Risk Factors" in this AIF.

If any risks or uncertainties with respect to the above materialize, or if the opinions, estimates or assumptions underlying the forward-looking statements prove incorrect, actual results or future events might vary materially from those anticipated in the forward-looking statements. The opinions, estimates or assumptions referred to above and described in greater detail under "Risk Factors" in this AIF should be considered carefully by readers. Although management has attempted to identify important risk factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other risk factors not presently known that management believes are not material that could also cause actual results or future events to differ materially from those expressed in such forward-looking statements.

All forward-looking statements are based only on information currently available to the Company and are made as of the date of this AIF. Except as expressly required by applicable Canadian securities law, the Company assumes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise. All forward-looking statements in this AIF are qualified by these cautionary statements.

NUVO PHARMACEUTICALS INC. STRUCTURE

Corporate Structure

Nuvo Pharmaceuticals Inc. was incorporated under the *Business Corporations Act* (Ontario) on August 22, 1983 under the laws of the Province of Ontario as Clark Pharmaceutical Laboratories Ltd. On November 14, 1990, the articles were amended to change the name of the Company from Clark Pharmaceutical Laboratories Ltd. to Dimethaid Research Inc. On September 30, 2005, the articles were further amended to change the name of the Company from Dimethaid Research Inc. to Nuvo Research Inc. On March 1, 2016, the articles were amended to change the name of the Company from Nuvo Research Inc. to Nuvo Pharmaceuticals Inc.

The Company's registered office and principal place of business is located at 6733 Mississauga Road, Unit 610, Mississauga, Ontario L5N 6J5. Nuvo's international operations

are located in Dublin, Ireland and its U.S. Food and Drug Administration (FDA), Health Canada and E.U. approved manufacturing facility is located in Varennes, Québec, Canada.

Reorganization

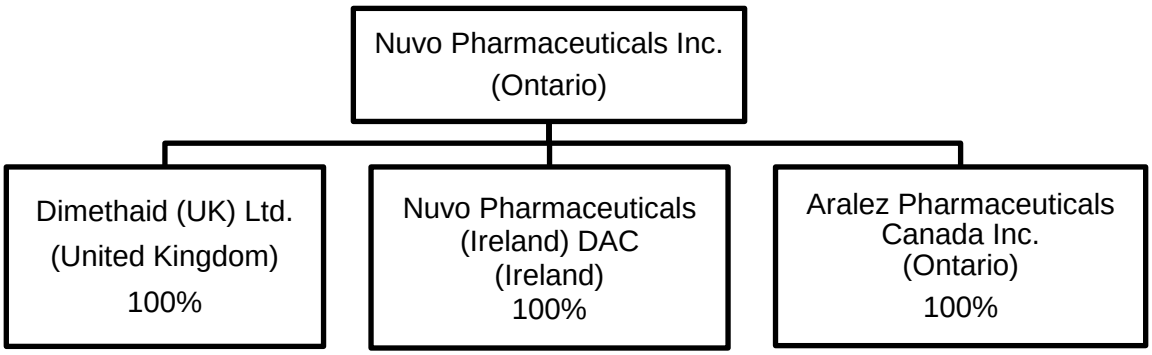
On December 14, 2015, the Company, 2487002 Ontario Limited and 2487001 Ontario Limited entered into an arrangement agreement (the Arrangement Agreement) in respect of the proposed reorganization of the Company into two separate publicly traded companies (the Reorganization). Nuvo would be a commercial healthcare company to be owned 100% by Nuvo's shareholders. The second company, Crescita Therapeutics Inc. (Crescita), would be a drug development company also initially owned 100% by Nuvo's shareholders. Pursuant to the Reorganization, Nuvo's drug development business that focused on pain and dermatology, including Pliaglis and its Multiplexed Molecular Penetration Enhancer (MMPE) technology and its Immunology Group, including its WF10 assets and drug development program, were transferred to Crescita.

The Reorganization was approved by the shareholders of Nuvo at a special Shareholders' Meeting on February 18, 2016 and by the Ontario Superior Court of Justice on February 24, 2016. The Reorganization was completed on March 1, 2016.

Detailed information regarding the Reorganization and its effects including a description of certain risks and uncertainties in respect of the Reorganization and the operation of Nuvo and Crescita as separate publicly traded companies are included in the Management Information Circular dated December 31, 2015 (the Reorganization Circular) that is available under Nuvo's profile on SEDAR at www.sedar.com.

Organizational Chart

The following chart illustrates Nuvo's relationship to its subsidiaries, its respective jurisdictions of incorporation, as well as the percentage ownership as at December 31, 2018.



Dimethaid (UK) Ltd.

In 1999, Dimethaid (UK) Ltd. was incorporated as a British company that holds the marketing authorization for Pennsaid® in the United Kingdom and several European Union countries. Dimethaid (UK) Ltd. is a wholly owned subsidiary of Nuvo Pharmaceuticals Inc.

Nuvo Pharmaceuticals (Ireland) Designated Activity Company

In 2017, Nuvo Pharmaceuticals (Ireland) Limited was incorporated as an Irish limited liability company. In December 2018, Nuvo Pharmaceuticals (Ireland) Limited was re-registered as an Irish Designated Activity Company (DAC) and the company was renamed Nuvo Pharmaceuticals (Ireland) DAC (Nuvo Ireland). Nuvo Ireland is a wholly owned subsidiary of Nuvo Pharmaceuticals Inc. and holds (i) the worldwide (except Canada) product rights and intellectual property for Resultz® (50% isopropyl myristate, 50% cyclomethicone D5 topical solution lice and egg removal kit), and (ii) following the Aralez Transaction (as defined and described in further detail below), the worldwide product rights and royalties from licensees for Vimovo®, Yosprala™ and global, ex-U.S. product rights to MT400 (to be sold as Suvexx™ in Canada once registered and approved) which is currently commercialized in the U.S. as Treximet.

Aralez™ Pharmaceuticals Canada, Inc.

In connection with the Aralez Transaction, Nuvo acquired all of the shares of Aralez Pharmaceuticals Inc.'s (Aralez) Canadian specialty-pharmaceutical business, Aralez Pharmaceuticals Canada Inc. (Aralez Canada), which was formerly known as Tribute Pharmaceuticals Canada Inc. (Tribute Pharmaceuticals). Aralez Canada is now a wholly owned subsidiary of Nuvo. Aralez Canada owns the rights to Cambia®, Blexten® and the Canadian distribution rights to Resultz and a portfolio of 16 additional legacy brands.

GENERAL DEVELOPMENT OF THE BUSINESS

Nuvo is a publicly traded, Canadian focused, healthcare company with global reach and a diversified portfolio of commercial products. The Company targets several therapeutic areas, including pain, allergy and dermatology. The Company's strategy is to in-license and acquire growth-oriented, complementary products for Canadian and international markets and to out-license select products in global markets. For a description of the Company's portfolio of products, see "Narrative Description of the Business".

The following is a summary of the general development of the Company's business over the past three years.

Three Year History of the Business

Fiscal 2018

The Aralez Transaction

On December 31, 2018, the Company announced it had completed the acquisition of a portfolio of more than 20 revenue-generating products from Aralez (the Aralez Transaction), including Cambia, Blexten and the Canadian distribution rights to Resultz, that will create a platform for Nuvo to acquire and launch additional commercial products in Canada. Nuvo has also acquired the worldwide rights and royalties from licensees for Vimovo, Yosprala and global, ex-U.S. product rights to Treximet. The Company satisfied the purchase price through funding provided by certain funds managed by Deerfield Management Company, L.P. (Deerfield), a leading, global, healthcare-specialized investor.

See "General Development of the Business – Significant Acquisitions – The Aralez Transaction".

License and Distribution Agreement for Resultz with Heumann

In December 2018, Nuvo Ireland entered into a license and supply agreement with Heumann Pharma GmbH & Co. Generica KG (Heumann) which grants Heumann the exclusive right to distribute, market and sell Resultz in Germany. Heumann is headquartered in Nuremberg, Germany, and is part of the Torrent Pharma Group which has an international presence across 40 countries. Resultz is approved in Germany as a class one medical device for the human treatment of head lice infestation. Nuvo Ireland will receive upfront consideration, milestone payments and royalties on net sales of Resultz in Germany and will earn revenue from Heumann pursuant to an exclusive supply agreement. Resultz is currently manufactured by the Company's contract manufacturing partner in Belgium.

Termination of Normal Course Issuer Bid

On December 3, 2018, the Company's normal course issuer bid, which permitted the Company to begin purchasing Common Shares on or about December 4, 2017, terminated. During the term of the normal course issuer bid, the Company purchased 71,494 Common Shares with available cash on hand for a total cost of $195,700.37 or $2.74 per share. The Common Shares acquired by Nuvo were cancelled. See "Approval of Normal Course Issuer Bid".

Submission of Marketing Authorization for Pennsaid 2% in Switzerland

In October 2018, the Company's licensee in Switzerland, Gebro Pharma AG (Gebro Pharma), submitted its marketing authorization application for Pennsaid 2% to Swissmedic, the overseeing Swiss regulatory authority. This submission is the first European market where Pennsaid 2% has been submitted for registration. The Company expects to receive feedback from Swissmedic in 2020.

License and Distribution Agreement for Resultz with Fagron

In July 2018, Nuvo Ireland entered into a license and supply agreement with Fagron Belgium NV (Fagron) for Resultz granting Fagron the commercialization rights to Resultz in Belgium, the Netherlands and Luxembourg (BeNeLux) as a class one medical device for the human treatment of head lice infestation. Resultz is already cleared for marketing in BeNeLux. Nuvo Ireland received upfront consideration, is eligible to receive royalties on net sales of Resultz in BeNeLux and will earn revenue from Fagron pursuant to an exclusive supply agreement. Fagron launched Resultz in BeNeLux in the second half of 2018. Resultz is currently manufactured by the Company's contract manufacturing partner in Belgium. Nuvo Ireland immediately began to earn royalty revenue under this agreement with Fagron.

Expiration of Shareholders' Rights Plan

In May 2018, the Company's Shareholders' rights plan expired. The Shareholders' rights plan was instituted in 1992 to provide the Board of Directors with sufficient time to consider and, if appropriate, to explore and develop alternatives for maximizing shareholder value if a takeover bid was made for the Company, and to provide every shareholder with an equal opportunity to participate in such a bid.

Resultz U.S. Asset Purchase

In January 2018, Nuvo Ireland acquired the U.S. rights to Resultz from Piedmont Pharmaceuticals LLC (Piedmont). The acquisition included all U.S. product and intellectual property rights. See "General Development of the Business – Significant Acquisitions – Resultz U.S. Asset Purchase".

Fiscal 2017

Resultz ex-U.S. Asset Purchase

In December 2017, the Company acquired the global, ex-U.S. product and intellectual property rights to Resultz from Piedmont. The transaction included existing royalty streams in France, Spain, Portugal, Belgium, Ireland and the United Kingdom, Canada, Russia, Australia and Israel, generated from a network of existing global licensees and license agreements that were assumed by Nuvo. See "General Development of the Business – Significant Acquisitions – Resultz ex-U.S. Asset Purchase".

License and Distribution Agreement for Pennsaid 2% with Gebro Pharma

In December 2017, the Company entered into a license and distribution agreement with Gebro Pharma for the exclusive right to register, distribute, market and sell Pennsaid 2% in Switzerland and Liechtenstein. Gebro Pharma is the Switzerland-based affiliate of Gebro Holding GmbH, an Austrian-based pharmaceutical company with a commercial presence via subsidiaries and partners in over 25 countries globally. The license agreement grants Gebro Pharma the exclusive rights in Switzerland and Liechtenstein to register, market, sell and distribute Pennsaid 2% as a non-prescription drug for the human treatment of osteoarthritis (OA) of the knee and acute pain from sprains and strains. Nuvo provided Gebro Pharma with its existing Pennsaid 2% regulatory dossier and the FDA approval of Pennsaid 2%, which Gebro Pharma used to support its application for regulatory approvals in Switzerland and Liechtenstein. In June 2018, Gebro Pharma received notification from Swissmedic, the overseeing Swiss regulatory authority, that Gebro Pharma could submit the Pennsaid 2% marketing authorization application in Switzerland during the third quarter of 2018 which triggered a milestone payment from Gebro Pharma to the Company. In October 2018, Gebro Pharma submitted its marketing authorization application for Pennsaid 2% to Swissmedic. The Company expects to receive feedback from Swissmedic in 2020. Nuvo is eligible to receive milestone payments and royalties on net sales of Pennsaid 2% in Switzerland and Liechtenstein and will earn product revenue from Gebro Pharma pursuant to an exclusive supply agreement.

Approval of Normal Course Issuer Bid

In November 2017, the Toronto Stock Exchange (TSX) approved the Company's notice of intention to make a normal course issuer bid for a portion of its outstanding Common Shares as appropriate opportunities arise from time-to-time. The normal course issuer bid would be made in accordance with the requirements of the TSX. Nuvo believed that the repurchase of a portion of outstanding Common Shares may be an appropriate use of available cash and is in the best interest of Nuvo and its shareholders.

Pursuant to the notice, Nuvo was authorized to acquire up to a maximum of 919,819 of its Common Shares, or approximately 10% of the public float of 9,198,191 as of November 30, 2017, for cancellation over the next 12 months. Purchases under the normal course

issuer bid would be funded through available cash and may be made through the facilities of the TSX or through a Canadian alternative trading system and in accordance with applicable regulatory requirements at a price per common share equal to the market price at the time of acquisition. The number of Common Shares that could be purchased pursuant to the bid was subject to a current daily maximum of 4,049 Common Shares (which is equal to 25% of 16,196, being the average daily trading volume during the six months preceding November 30, 2017), subject to Nuvo's ability to make one block purchase of units per calendar week that exceeds such limits. As of November 30, 2017, there were 11,550,897 Nuvo Common Shares outstanding. Nuvo was able to begin purchasing Common Shares on or about December 4, 2017 and the bid terminated on December 3, 2018. During the term of the normal course issuer bid, the Company purchased 235,543 Common Shares with available cash on hand for an approximate total cost of $748,000 or $3.17 per share. The Common Shares acquired by Nuvo were cancelled.

Trading on OTCQX® Market

On November 28, 2017, the Company's Common Shares commenced trading on the OTCQX market in the United States under the symbol "NRIFF".

RBC Operating Facility

In August 2017, the Company announced it had secured a $6.0 million operating revolving credit facility (the RBC Operating Facility) with the Royal Bank of Canada (RBC). The RBC Operating Facility was a standby facility that could be drawn by Nuvo for working capital requirements and general corporate purposes. Drawings were limited to a percentage of the Company's then outstanding accounts receivable and inventory. As required by the terms of the Deerfield Financing (as defined and described in further detail below), the RBC Operating Facility was terminated and the requisite security was discharged and cancelled. See "General Development of the Business – Recent Financings – The Deerfield Facility".

Validity of Pennsaid 2% Patent

In May 2017, the United States District Court for the District of New Jersey (the District Court) upheld the validity of one of the claims in Horizon Pharma USA, Inc.'s (Horizon) U.S. patent covering Pennsaid 2%. The defendant, Actavis Laboratories UT, Inc. (Actavis) admitted that its proposed generic version of Pennsaid 2% would infringe the patent and was attempting to challenge the patent's validity. This verdict prevents Actavis from launching a generic version of Pennsaid 2% in the U.S. until at least October 17, 2027 – the expiration date of the patent. Actavis has appealed this decision and is waiting the decision of the Federal Circuit Court of Appeals.

Results of 2016 Pennsaid 2% Trial

In May 2017, the Company announced the results of a placebo-controlled, multi-centre Phase 3 trial in Germany to study Pennsaid 2% for the treatment of acute ankle sprains (the 2016 Pennsaid 2% Trial). The 2016 Pennsaid 2% Trial was conducted to support regulatory applications for marketing approval of Pennsaid 2% in the E.U., Canada and Australia. The 2016 Pennsaid 2% Trial failed to meet its primary endpoint. The Company does not plan to conduct another clinical study of Pennsaid 2% for the treatment of acute ankle sprains. The Company intends to use the existing data that supported the FDA approval of Pennsaid 2% and Pennsaid for the treatment of OA to support applications

for approval of Pennsaid 2% or Pennsaid for the treatment of OA in select E.U. territories, Canada and Australia. See “Narrative Description of the Business – Pennsaid 2%”.

License and Distribution Agreement for Pennsaid 2% with Sayre Therapeutics

In March 2017, the Company entered into an exclusive license agreement with Sayre Therapeutics PVT Ltd. (Sayre Therapeutics) to distribute, market and sell Pennsaid 2% as a prescription drug for the human treatment of OA of the knee and acute pain from sprains and strains in India, Sri Lanka, Bangladesh and Nepal. Sayre Therapeutics filed their application for regulatory approval with the Drug Controller General of India in December 2017. After some review delays with the Drug Controller General of India, it is anticipated that a review decision will be made in the second half of 2019. If regulatory approval is obtained, the Company anticipates commercial launch of Pennsaid 2% may commence later in the second half of 2019. Nuvo received an upfront payment and is eligible to receive milestone payments and a double-digit royalty on net sales. Nuvo will supply Pennsaid 2% to Sayre Therapeutics on an exclusive basis from its manufacturing facility in Varennes, Québec.

Marketing Authorization for Pennsaid 2% in Russia

In February 2017, the Company received notification from NovaMedica LLC (NovaMedica), its Russian licensee for Pennsaid 2%, that the marketing authorization for Pennsaid 2% had been granted by the Russian Ministry of Health. The marketing authorization is inclusive of the non-prescription, human use of Pennsaid 2% in treating back pain, joint pain, muscle pain and inflammation and swelling in soft tissue and joints associated with trauma and rheumatic conditions. Pennsaid 2% has not yet been commercially launched in Russia. See “Narrative Description of the Business – Pennsaid 2%”.

Pennsaid 2% Inventory Adjustments

In February 2017, Horizon advised the Company that it planned to draw down some of its existing inventory of commercial bottles of Pennsaid 2% and shift commercial bottle production from the second quarter to later in 2017. These inventory adjustments were in response to the U.S. Federal Drug Supply Chain Security Act (DSCSA) rules that required all pharmaceutical drugs manufactured for the U.S. market to have individually serialized tracking. The plan was slightly adjusted on June 30, 2017, when the Company was advised that the FDA was extending the serialization compliance date by one year – from November 17, 2017 to November 17, 2018. The Company completed its qualification and was fully compliant with the DSCSA during the fourth quarter of 2018. See “Narrative Description of the Business – Pennsaid 2%”.

Fiscal 2016

Commencement of 2016 Pennsaid 2% Trial

In July 2016, after reviewing the data from the 2015 Pennsaid 2% Trial (described below), the Company announced that it would conduct the 2016 Pennsaid 2% Trial. The primary endpoint for the 2016 Pennsaid 2% Trial was reduction in pain on movement at day three. The 2016 Pennsaid 2% Trial was designed to support regulatory applications for marketing approval of Pennsaid 2% for the treatment of acute pain in the E.U., Canada and Australia.

Results of 2015 Pennsaid 2% Trial

In March 2016, the Company announced top-line results of its Phase 3, multi-centre, randomized, placebo-controlled, double-blind, parallel group trial in patients with grade I or II ankle sprains conducted in Germany (the 2015 Pennsaid 2% Trial). The 2015 Pennsaid 2% Trial did not meet its primary endpoint, which was pain on movement at day five. For the full analysis set group, the difference vs. placebo was statistically significant on the secondary time point on day 3, but not at the primary time point on day five or the secondary time point on day eight. The 2015 Pennsaid 2% Trial was conducted to support regulatory applications for marketing approval of Pennsaid 2% for the treatment of acute pain in the E.U., Canada and Australia which are potential new markets for Pennsaid 2%.

Reorganization

On December 14, 2015, the Company, 2487002 Ontario Limited and 2487001 Ontario Limited entered into an arrangement agreement (the Arrangement Agreement) in respect of a reorganization of the Company into two separate publicly traded companies (the Reorganization). Pursuant to the Reorganization, Nuvo Pharmaceuticals Inc. and Crescita, would each be owned 100% by Nuvo's shareholders. The Reorganization was approved by the shareholders of the Company at a special Shareholders' meeting on February 18, 2016 and by the Ontario Superior Court of Justice on February 24, 2016. The Reorganization was completed on March 1, 2016. In general, this AIF does not include historic information that is relevant only to Crescita, its subsidiaries and their respective businesses. See "Nuvo Pharmaceuticals Inc. Structure – Reorganization".

Pennsaid 2% U.S. Asset Sale

On October 17, 2014, the Company entered into an asset purchase agreement with Horizon. Under the terms of this agreement, the Company sold the sales and marketing rights and other assets related to Pennsaid 2% in the U.S. including, among other things: the investigational new drug application (IND) and the NDA for Pennsaid 2%, the Company's interests in patents covering Pennsaid 2% in the U.S. and certain regulatory documentation, promotional materials and records related to Pennsaid 2% (Pennsaid 2% U.S. Sale Agreement) for cash consideration of US$45.0 million received on the closing date.

Horizon commercially launched Pennsaid 2% in the U.S. in early January 2015 and is now responsible for all matters related to Pennsaid 2% in the U.S. Also pursuant to the Pennsaid 2% U.S. Sale Agreement, Nuvo agreed to discontinue the manufacture, sale and marketing of Pennsaid in the U.S. and is prohibited, for a period of ten years, from developing, manufacturing or commercializing any diclofenac sodium product for topical uses in humans in the U.S.

In connection with the Pennsaid 2% U.S. Sale Agreement, the Company also entered into a long-term supply agreement with Horizon. Pursuant to the supply agreement, the Company agreed to supply Pennsaid 2% to Horizon from its Varennes, Québec manufacturing facility for commercialization in the U.S. The initial term of the supply agreement was to expire on December 31, 2022 and, unless terminated, automatically renews for successive two-year terms, thereafter. In February 2016, the supply agreement was amended (Amended Supply Agreement) to extend the term of the agreement to December 31, 2029 and to introduce volume tiered pricing. The transfer price is subject to

semi-annual adjustments based on Nuvo's raw material costs and annual adjustments based upon changes in a national manufacturing cost index for pharmaceutical products. The supply agreement may be terminated earlier by either party for any uncured material breach or other customary conditions. Under the Amended Supply Agreement, Nuvo is obligated to supply Pennsaid 2% to Horizon and Horizon is obligated to obtain 90% of its requirements for Pennsaid 2% from Nuvo. The supply agreement also provides for the selection and qualification of alternate suppliers of Pennsaid 2% and its active pharmaceutical ingredient (API). Following the approval by the FDA of a selected alternate supplier, and subject to certain limitations, the Company is required to enter into a supply agreement with the alternate supplier with respect to Pennsaid 2% or its API. To the extent that maintaining regulatory approvals for an alternative supplier requires the Company to purchase minimum quantities of drug product or API from the alternate supplier, the Company is obligated to purchase such minimum quantities, subject to Horizon's obligation to reimburse the Company for any excess cost compared to its cost to otherwise obtain such drug product or API. As of the filing of this AIF, an alternate supplier of Pennsaid 2% has not been selected or qualified.

Significant Acquisitions

The Aralez Transaction

On September 19, 2018, the Company announced the signing of a definitive binding asset purchase agreement (the Asset Purchase Agreement) and a definitive binding share purchase agreement (the Share Purchase Agreement, and together with the Asset Purchase Agreement, the Purchase Agreements) with Aralez to acquire a portfolio of more than 20 revenue-generating products, as well as the associated personnel and infrastructure to continue the products' management and growth.

On August 10, 2018, Aralez, along with its Canadian subsidiary, Aralez Canada, commenced voluntary proceedings under Canada's *Companies' Creditors Arrangement Act* (the CCAA) in the Ontario Superior Court of Justice (the Ontario Court). In addition, certain other subsidiaries of Aralez voluntarily filed petitions under Chapter 11 of the United States Bankruptcy Code in the U.S. Bankruptcy Court for the Southern District of New York (together with the Ontario Court, the Courts) (the Bankruptcy Proceedings).

As part of the Bankruptcy Proceedings, Aralez and its subsidiaries conducted a sale process in accordance with bidding procedures approved by the Courts to pursue a sale or sales of their respective assets in accordance with the bidding procedures. The Purchase Agreements served as "stalking horse" bids in the sale process and entitled Nuvo to a customary termination fee and expense reimbursement if it was not ultimately the successful bidder in the process. On November 29, 2018, Nuvo was informed by Aralez that its bids pursuant to the terms of the Purchase Agreements were determined to be the successful bids under the Court approved bidding procedures. The Courts approved the Aralez Transaction in December 2018.

On December 31, 2018, the Company announced the closing of the Aralez Transaction. The Aralez Transaction included the acquisition of Aralez Canada, a growing business that includes the products Cambia, Blexten, and the Canadian distribution rights to Resultz, and will create a platform for the Company to acquire and launch additional commercial products in Canada. The Company also acquired the worldwide rights and royalties from licensees for Vimovo, Yosprala and global, ex-U.S. product rights to Suvexx.

In connection with the closing of the Aralez Transaction, the CCAA proceedings of Aralez Canada were terminated pursuant to an order of the Ontario Court.

The aggregate purchase price paid by the Company to Aralez at closing of the Aralez Transaction was US$110 million (less a US$4.4 million deposit previously paid and subject to certain working capital and indebtedness adjustments). The Company satisfied the purchase price through funding provided by certain funds managed by Deerfield, a leading, global, healthcare-specialized investor. See “General Development of the Business – Recent Financings – The Deerfield Financing”.

In connection with the closing of the Aralez Transaction, the Company obtained representation and warranty insurance to cover any potential breach of the representations and warranties provided to the Company under the Purchase Agreements, as the Purchase Agreements did not include indemnification provisions given that the Aralez Transaction occurred in connection with the Bankruptcy Proceedings. The representation and warranties insurance policy (the RWI Policy) provides coverage of up to $10.0 million and a deductible of $1.1 million, which drops to $550,000 after 12 months under certain circumstances, and is subject to certain exclusions.

The Company filed a Form 51-102F4 (Business Acquisition Report) with respect to the Aralez Transaction on SEDAR at www.sedar.com .

Resultz U.S. Asset Purchase

In January 2018, Nuvo Ireland acquired the U.S. rights to Resultz from Piedmont. The acquisition included all U.S. product and intellectual property rights. Resultz was cleared as a Class 1 medical device by the FDA in May 2017 and has not yet been commercially launched in the U.S. Nuvo has initiated discussions with potential licensees to commercialize Resultz in the U.S. Under the terms of the agreement, US$1.5 million (CDN$1.9 million) was paid to Piedmont. The transaction included a single-digit royalty payable by Nuvo Ireland on net sales through 2034. Nuvo, through Nuvo Ireland, also obtained a right of first refusal to license or acquire certain related assets from Piedmont targeting other human indications. The Company filed a Form 51-102F4 (Business Acquisition Report) with respect to this acquisition on SEDAR at www.sedar.com.

Resultz ex-U.S. Asset Purchase

In December 2017, the Company acquired the global, ex-U.S. product and intellectual property rights to Resultz from Piedmont. The transaction included existing royalty streams in France, Spain, Portugal, Belgium, Ireland and the United Kingdom, Canada, Russia, Australia and Israel (collectively the Royalty Markets), generated from a network of existing global licensees and license agreements that were assumed by Nuvo. Under the terms of the agreement, Nuvo paid US$7.0 million (CDN$8.8 million) to Piedmont on closing. The transaction also included a single-digit royalty payable by Nuvo on net sales generated from non-Royalty Markets through 2023 and potential added future consideration in the form of payments for achieving certain aggregate annual net sales-based milestones. The Company filed a Form 51-102F4 (Business Acquisition Report) with respect to this acquisition on SEDAR at www.sedar.com.

In January 2018, the Company transferred the worldwide (except Canada) Resultz product and intellectual property rights to Nuvo Ireland pursuant to an asset transfer

agreement. Together, the Company and Nuvo Ireland hold the worldwide intellectual property rights to Resultz.

Recent Financings

In the past three years, the Company has not raised cash from the issuance of equity. The Company continuously monitors its cash flow requirements and will explore appropriate financing opportunities in order to support future corporate initiatives.

The Deerfield Financing

On December 31, 2018, the Company and Nuvo Ireland, as borrowers, and Aralez Canada, as guarantor, entered into a facility agreement (the Deerfield Facility Agreement) with Deerfield Private Design Fund III, L.P., as agent (the Agent) and certain funds managed by Deerfield, as lenders (collectively, the Lenders) to fund the purchase price of the Aralez Transaction (the Deerfield Financing).

The Deerfield Financing consists of (i) a 6-year, amortizing loan made available to Nuvo Ireland in the principal amount of US$60 million with an interest rate of 3.5% per annum (the Amortization Loan), (ii) an 18-month bridge loan made available to the Company in the principal amount of US$6.0 million with an interest rate of 12.5% per annum (the Bridge Loan), (iii) a 6-year, convertible loan made available to the Company in the principal amount of US$52.5 million with an interest rate of 3.5% per annum, initially convertible into 19,444,444 Common Shares of the Company at a conversion price of US$2.70 (the Convertible Notes) (the Convertible Loan and, together with the Amortization Loan and the Bridge Loan, the Deerfield Loans), and (iv) approximately 25,555,556 million common share purchase warrants, each such warrant initially exercisable for one common share of the Company for a period of six years from the date of issuance at an exercise price of $3.53 per share (the Warrants).

The Amortization Loan proceeds were used by Nuvo Ireland to fund the purchase price under the Asset Purchase Agreement and the transaction expenses related thereto. Pursuant to the Deerfield Facility Agreement, the loan notes issued to the Lenders in relation to the Amortization Loan were admitted to listing on a recognized stock exchange and be quoted “Eurobonds” within the meaning of section 64(1) of the *Tax Consolidation Act 1997* (Ireland) in March 2019. The proceeds of the Convertible Loan and a portion of the proceeds from the issuance of the Warrants were used by the Company to fund the purchase price under the Share Purchase Agreement and the transaction expenses related thereto. The proceeds of the Bridge Loan and the balance of the proceeds from the issuance of the Warrants are available to fund the Company’s working capital and general corporate purposes, including transactional expenses. In connection with the closing of the Deerfield Financing, the Company’s existing undrawn operating facility with RBC was terminated.

The issuance of Common Shares of the Company upon the conversion of the Convertible Notes and the exercise of the Warrants was subject to Shareholder approval under the rules of the Toronto Stock Exchange (TSX). Pursuant to the rules of the TSX, the Company obtained written consents from shareholders holding, in the aggregate, more than 50% of the Company’s issued and outstanding Common Shares approving the issuance of such Common Shares upon the conversion of the Convertible Notes and exercise of the Warrants.

The Deerfield Facility Agreement contains customary representations and warranties and affirmative and negative covenants, including, among other things, limitations on asset sales, mergers and acquisitions, indebtedness, liens and dividends. In addition, the Company is subject to an annual financial covenant based on minimum levels of net sales per fiscal year and a mandatory quarterly repayment requirement under the Amortization Loan and the Bridge Loan equal to the greater of (i) 50% of excess cash flow (as defined in the Deerfield Facility Agreement) for such quarter, and (ii) US$2.5 million, commencing with the quarter ended March 31, 2019, provided that, solely with respect to the first four fiscal quarters after the closing date, the US$2.5 million quarterly minimum is not applicable so long as US$10.0 million in prepayments have been made over such four fiscal quarters. The mandatory quarterly prepayments are first applied to the Bridge Loan, which is at a higher interest rate than the Amortization Loan.

The Deerfield Loans are guaranteed by Aralez Canada and cross-guaranteed by each of the Company and Nuvo Ireland as to each other's obligations, and are secured by a first ranking charge over substantially all property of each of the Company, Nuvo Ireland and Aralez Canada.

The Deerfield Facility Agreement contains customary events of default, including an event of default upon certain circumstances constituting a change of control of, or other fundamental transactions relating to the Company, subject to specific exceptions and as more specifically set out in the Deerfield Facility Agreement. Failure to comply with the terms of the Deerfield Facility Agreement would entitle the Agent and the Lenders to accelerate all amounts outstanding under the Deerfield Loans, and upon such acceleration, the Agent and the Lenders would be entitled to enforce on the security granted by each of the Company, Nuvo Ireland and Aralez Canada. The Lenders would then be repaid in full from the proceeds of all available assets prior to the repayment of claims of any unsecured creditors or equity holders.

In connection with the Deerfield Financing, the Company entered into a registration rights agreement with Deerfield (the Registration Rights Agreement), pursuant to which the Company has agreed to provide Deerfield with certain demand registration rights and piggy-back registration rights with respect to a sale of securities of the Company.

NARRATIVE DESCRIPTION OF THE BUSINESS

Nuvo is a publicly traded, Canadian focused healthcare company with global reach and a diversified portfolio of commercial products. The Company targets several therapeutic areas, including pain, allergy and dermatology. The Company's strategy is to in-license and acquire growth-oriented, complementary products for Canadian and international markets and to out-license select products in global markets. Certain of the Company's main products are described below.

Products Out-Licensed or Manufactured by Nuvo

Pennsaid 2%

Pennsaid 2%, the follow-on product to original Pennsaid (described below). Pennsaid 2% is a topical pain product that combines a DMSO-based transdermal carrier with 2% diclofenac sodium compared to 1.5% for original Pennsaid. It is more viscous than original Pennsaid, is supplied in a metered dose pump bottle and has been approved in the U.S. for twice daily dosing compared to four times a day for Pennsaid. This provides

Pennsaid 2% with potential advantages over Pennsaid and other competitor products, and with patent protection. Nuvo owns the worldwide rights to Pennsaid 2%, except with respect to the United States, which is owned by Horizon.

For the year ended December 31, 2018, the Company recorded $13.9 million in Pennsaid 2% product sales representing 79% of the Company's total product sales. For the year ended December 31, 2017, the Company recorded $14.2 million in Pennsaid 2% product sales representing 87% of the Company's total product sales.

United States

Pennsaid 2% was approved on January 16, 2014 in the U.S. and launched by Mallinckrodt Inc. (Mallinckrodt) in February 2014 for the treatment of pain of OA of the knee. OA is the most common joint disease affecting middle-age and older people. It is characterized by progressive damage to joint cartilage and causes changes in the structures around the joint. These changes can include fluid accumulation, bony overgrowth and loosening and weakness of muscles and tendons, all of which may limit movement and cause pain and swelling. In September 2014, the Company reached a settlement related to its litigation with Mallinckrodt. Under the terms of the settlement agreement, Mallinckrodt returned the U.S. sales and marketing rights to Pennsaid 2% to Nuvo. In October 2014, Nuvo sold the U.S. rights to Pennsaid 2% to Horizon for US$45.0 million. Under the terms of this agreement, the Company earns revenue from product sales of Pennsaid 2% to Horizon. See "General Development of the Business – History of the Business – Pennsaid 2% U.S. Asset Sale". In January 2015, Horizon commercially launched Pennsaid 2% in the U.S.

Nuvo records revenue from Horizon when it ships Pennsaid 2% commercial bottles and product samples to Horizon for the U.S. market. The Company earns product revenue from Horizon pursuant to a long-term, exclusive supply agreement, as well as contract service revenue. The timing of Nuvo shipments to Horizon does not necessarily align with when U.S. patients fill prescriptions written by their physicians. Horizon's orders from Nuvo are influenced by Horizon's management strategies and inventory levels, as well as U.S. market demand for commercial product.

As of March 27, 2019, 19 U.S. patents have been listed in the FDA's Orange Book that provide protection for Pennsaid 2% and/or its use.

Rest of World

Paladin has exclusive rights to market and sell Pennsaid 2% in Canada. In November 2014, the Company reacquired from Paladin, the rights to market Pennsaid 2% in South America, Central America, South Africa and Israel. As consideration for these rights, Nuvo provided its authorization to Paladin to market, sell and distribute an authorized generic version of Pennsaid in Canada. Pennsaid 2% has not been approved or commercially launched in any of these territories.

NovaMedica has exclusive rights to sell and market Pennsaid 2% and Pennsaid in Russia and some of the Commonwealth of Independent States (CIS). In February 2017, the Company received notification from NovaMedica that the marketing authorization for Pennsaid 2% had been granted by the Russian Ministry of Health. The marketing authorization is inclusive of the non-prescription, human use of Pennsaid 2% in treating back pain, joint pain, muscle pain, and inflammation and swelling in soft tissue and joints

associated with trauma and rheumatic conditions. Pennsaid 2% has not yet been commercially launched in Russia.

Sayre Therapeutics has the exclusive rights to distribute, market and sell Pennsaid 2% in India, Sri Lanka, Bangladesh and Nepal. Sayre Therapeutics filed their application for regulatory approval with the Drug Controller General of India in December 2017. After some review delays with the Drug Controller General of India, it is anticipated that a review decision will be made in the second half of 2019. If regulatory approval is obtained as anticipated, the Company expects commercial launches of Pennsaid 2% will commence in the second half of 2019. Nuvo will supply Pennsaid 2% to Sayre Therapeutics on an exclusive basis from its manufacturing facility in Varennes, Québec. See "General Development of the Business – History of the Business – License and Distribution Agreement for Pennsaid 2% with Sayre Therapeutics".

Gebro Pharma has the exclusive rights to register, distribute, market and sell Pennsaid 2% in Switzerland and Liechtenstein. In October 2018, Gebro Pharma submitted its marketing authorization application for Pennsaid 2% to Swissmedic, the overseeing Swiss regulatory authority. The Company expects to receive feedback from Swissmedic in 2020. The Company is eligible to receive milestone payments and royalties on net sales of Pennsaid 2% in Switzerland and Liechtenstein and will earn product revenue from Gebro Pharma pursuant to an exclusive supply agreement. See "General Development of the Business – History of the Business – License and Distribution Agreement for Pennsaid 2% with Gebro Pharma".

As of March 27, 2019, Nuvo owns 20 patents which have been granted in 19 countries outside the U.S. that provide protection for Pennsaid 2% and/or its use**.**

Nuvo is actively seeking commercialization partners for Pennsaid 2% in all remaining global markets where commercial opportunities exist.

Pennsaid 2% Clinical Trials

Additional clinical and non-clinical studies may be required to support applications for the regulatory approval of Pennsaid 2% in other countries in which Nuvo, or other licensees and distributors, could potentially market the product. The Company was advised by regulatory authorities in Canada and the U.K. that the data from the Pennsaid 2% Phase 2 trial conducted by Mallinckrodt was insufficient to support approval of Pennsaid 2% in their respective countries and that additional clinical trials would be required.

In July 2015, the Company commenced the 2015 Pennsaid 2% Trial to support regulatory approval applications for Pennsaid 2% in certain international jurisdictions. The 2015 Pennsaid 2% Trial did not meet its primary endpoint.

In October 2016, after reviewing the results of the 2015 Pennsaid 2% Trial, Nuvo commenced a Phase 3 clinical trial of Pennsaid 2% for the treatment of acute sprains and strains to support regulatory approval applications for Pennsaid 2% in certain international jurisdictions. In May 2017, the Company announced that the 2016 Pennsaid 2% Trial did not meet its primary endpoint.

After reviewing the 2016 Pennsaid 2% Trial results in detail, the Company met with its scientific advisors and regulatory consultants to determine what its next steps should be in relation to regulatory submissions of Pennsaid 2% in Canada, Australia and the E.U. At

present, the Company has no plans to conduct another trial similar to the 2016 Pennsaid 2% Trial. The Company intends to pursue Pennsaid 2% registrations in select territories that will accept the existing clinical and technical data package. The Company will submit a regulatory submission for Pennsaid 2% to the Austrian Agency for Health and Food Safety (AGES) during the first half of 2019.

Competitors

A number of existing pharmaceutical products treat the pain associated with OA. The goal, according to the American College of Rheumatology, is "control of pain and improvement in function and health-related quality of life, with avoidance, if possible, of toxic effects of therapy". There are many products available to address this condition and those available in the U.S. generally fall into one of the following categories:

- oral analgesics and nonsteroidal anti-inflammatory drugs (NSAIDs), intraarticular injections such as hyaluronic acid, steroids and platelet rich plasma and topical NSAIDs treatment and over-the-counter (OTC) oral medications that are accessible without a doctor's prescription, such as acetaminophen (Tylenol) and low-dose NSAIDs such as ibuprofen (Advil, Motrin) and naproxen (Aleve), glucosamine and chondroitin;

- oral, full-dose, NSAIDs which are available by prescription only;

- oral, full-dose, NSAIDs combined with proton pump inhibitors (PPI) to reduce certain side effects common to NSAIDs, such as Vimovo which combines naproxen, an NSAID, with esomeprazole magnesium, a PPI, which are available by prescription only;

- topical NSAIDs, which are available by prescription only;

- oral COX-2 selective NSAIDs which are available by prescription only; and

- oral opioid analgesics which are available by prescription only.

Pennsaid 2% faces competition in the U.S. from at least two other topically applied diclofenac drug products available by prescription that were approved for marketing by the FDA, as well as numerous OTC products. The FLECTOR Patch, which contains the NSAID diclofenac epolamine was approved by the FDA for the topical treatment of acute pain due to minor strains, sprains and contusions and is marketed by Pfizer Inc. The second drug product, containing the NSAID diclofenac sodium is GlaxoSmithKline's (GSK's) Voltaren Gel which was approved by the FDA for the relief of the pain of OA of joints amenable to topical treatment, such as the knees and those of the hand and is marketed by Endo Pharmaceuticals Inc.

Pennsaid

Pennsaid, the Company's first commercialized topical pain product, is used to treat the signs and symptoms of OA of the knee. Pennsaid is a combination of a DMSO-based transdermal carrier and 1.5% diclofenac sodium and delivers the active drug through the skin at the site of pain. While conventional oral NSAIDs expose patients to potentially serious systemic side effects such as gastrointestinal bleeding and cardiovascular risks,

Nuvo's clinical trials suggest that some of these systemic side effects occur less frequently with topically applied Pennsaid.

The Company has conducted multiple clinical studies on more than 6,000 subjects in controlled-blinded studies, as well as open-label extensions studies for up to 1 year in the treatment of OA of the knee. Pennsaid is currently the only topical NSAID approved by the FDA with the indication for the treatment of the signs and symptoms of OA of the knee.

For the year ended December 31, 2018, the Company recorded $3.3 million in Pennsaid product sales representing 19% of the Company's total product sales. For the year ended December 31, 2017, the Company recorded $2.0 million in Pennsaid product sales representing 12% of the Company's total product sales.

United States

In September 2014, the Company settled its litigation with Mallinckrodt and under the terms of the settlement, Mallinckrodt agreed to return the U.S. rights to Pennsaid 2% and Pennsaid to Nuvo. In October 2014, the Company sold the U.S. rights to Pennsaid 2% to Horizon. See "General Development of the Business – History of the Business – Pennsaid 2% U.S. Asset Sale". Under the terms of the Pennsaid U.S Sale Agreement, the Company agreed to discontinue the manufacture, sale and marketing of Pennsaid in the U.S.

Canada

Pennsaid is licensed to Paladin for the Canadian market. Paladin markets Pennsaid and an authorized generic version of Pennsaid. The Company earns revenue in the form of product sales to Paladin and a royalty on Canadian net sales of both products.

In Canada, there are six generic versions of Pennsaid approved in the market. The first generic was launched in 2014. In addition, the Company's partner launched an authorized generic to protect market share. The launch of these generic versions of Pennsaid had an adverse impact on the Company's revenue from Canada. Additionally, a topical diclofenac product, GSK's Voltaren Emulgel (1.16% w/w diclofenac diethylamine) has been available in Canada as an OTC since October 2008. In August 2014, Voltaren Emulgel Extra Strength (2.32% w/w diclofenac diethylamine) was approved in Canada as an OTC product and was launched by GSK in October 2014.

Rest of World

Pennsaid is also approved for sale and marketing in Greece, Italy and the U.K. Nuvo does not directly market Pennsaid in these jurisdictions. However, the Company does earn revenue in the form of product sales to its partners in these territories.

In 2013, the Company licensed the exclusive rights to sell and market Pennsaid 2% and Pennsaid in Russia and some of the CIS to NovaMedica. NovaMedica is responsible for conducting required clinical studies and obtaining regulatory approval for the products in the licensed territories. See "Narrative Description of the Business – Pennsaid 2%".

In the E.U., several major pharmaceutical companies market oral and topical NSAIDs that compete against Pennsaid in countries where it is marketed.

Resultz

Resultz is a commercial-stage, OTC product intended to kill head lice and remove their eggs from hair with as little as a 5-minute treatment. It is a pesticide-free, topical solution that contains only two common cosmetic ingredients - 50% isopropyl myristate and 50% cyclomethicone D5. It is clinically proven to achieve 100% effectiveness when used as directed.

Resultz is supported by clinical, preclinical and quality information that demonstrates the efficacy, safety and conformance of the product. Resultz has been demonstrated, with as a little as 5 minutes of exposure to effectively kill and remove lice when used as directed. Resultz is an over-the-counter, at home use product, with the intended use of killing lice, and removing lice and eggs from humans, and is classified as a Class I, CE marked medical device. The Resultz kit consists of a nit comb, 100 or 200ml HDPE bottle with nozzle containing the topical combing aid solution and instructions for use. The solution consists of equal parts (50/50 w/w) of two ingredients isopropyl myristate and cyclomethicone 5. Resultz has a favorable benefit risk ratio and is effective against lice infestation that may otherwise be resistant to traditional pesticidal treatments. The application of the Resultz solution leads to the dehydration of the louse through the elimination of a protective waxy coating and also facilitates their removal while combing the hair following its application.

United States

The Company acquired the U.S. product and intellectual property rights from Piedmont in January 2018. See “General Development of the Business – History of the Business – Resultz U.S. Asset Purchase”. Resultz was cleared as a Class 1 medical device by the FDA in May 2017 and has not yet been commercially launched in the U.S. Nuvo has initiated discussions with potential licensees to commercialize Resultz in the U.S.

As of March 27, 2019, Nuvo Ireland owns 2 patents which have been granted in the U.S. that cover Resultz and/or its use, the latest patent expiring in 2024**.**

Rest of World

The Company acquired the global, ex-U.S. product and intellectual property rights from Piedmont in December 2017. See “General Development of the Business – History of the Business – Resultz ex-U.S. Asset Purchase”. Resultz is approved and marketed in France, Spain, Portugal, Belgium, Germany, Ireland, the United Kingdom, Canada, Russia, Australia and Israel, through a network of license agreements and global licensees which include Reckitt Benckiser, Fagron and Heumann. Resultz is also pending registration in Japan, where the local license is held by Sato Pharmaceutical Co. Ltd. Resultz is a CE marked, Class 1 Medical Device – non-prescription (excluding Canada where Resultz is a non-prescription drug).

Fagron has the exclusive rights to register, market, sell and distribute Resultz in BeNeLux as a class one medical device for the human treatment of head lice infestation. Resultz is already cleared for marketing in BeNeLux. Nuvo Ireland received upfront consideration, is eligible to receive royalties on net sales of Resultz in BeNeLux and will earn revenue from Fagron pursuant to an exclusive supply agreement. Fagron launched Resultz in BeNeLux in the second half of 2018. Resultz is currently manufactured by the Company's contract manufacturing partner in Belgium. Nuvo Ireland immediately began to earn royalty revenue under this agreement with Fagron.

Heumann has the exclusive rights to market, sell and distribute Resultz in Germany. Resultz is approved in Germany as a class one medical device for the human treatment of head lice infestation. Nuvo Ireland received upfront consideration, is eligible to receive milestone payments and royalties on net sales of Resultz in Germany and will earn revenue from Heumann pursuant to an exclusive supply agreement. Resultz is currently manufactured by the Company's contract manufacturing partner in Belgium.

As a result of the acquisition of Aralez Canada, the Company has the exclusive rights to market, sell and distribute Resultz in Canada.

As of March 27, 2019, 35 ex-US patents that cover the Resultz product and/or its use, have been granted in 24 countries**.** Patents protected through June 2028 (Brazil) and April 2023 (ROW). The Canadian Resultz patent is owned by the Company and the remainder of the ex-U.S. patents are owned by Nuvo Ireland.

Competitors

Resultz faces competition in all markets from other topically applied head lice solutions such as pesticide-based products (including pyrethrin, permethrin, malathion etc.), non-pesticide-based products (including dimethicone or other siloxanes) and homeopathic remedies (including tea tree oil, coconut oil and other naturally sourced ingredients). Key pesticide-based brands are Rid (Bayer), Nix (Prestige Brands), Sklice (Arbor), and Ovide (Taro). Key non-pesticide brands are Nix Ultra (Prestige Brands), Nyda (Pohl Boshkamp), Hedrin (Stada), Linicin (Meda) and Paranix (Omega). Key homeopathic remedies are Vamousse (TyraTech).

HLT Patch

The HLT Patch is a topical patch that combines lidocaine, tetracaine and heat, using Nuvo's proprietary Controlled Heat-Assisted Drug Delivery (CHADD™) technology. The CHADD unit generates gentle heating of the skin and in a well-controlled clinical trial has demonstrated that it contributes to the efficacy of the HLT Patch by improving the flux rate of lidocaine and tetracaine through the skin. The HLT Patch resembles a small adhesive bandage in appearance and for its currently approved indication is applied to the skin 20 to 30 minutes prior to painful medical procedures, such as venous access, blood draws, needle injections and minor dermatologic surgical procedures.

The HLT Patch is manufactured by a third-party contract manufacturing organization (CMO) for Galen and Eurocept. Currently, Nuvo manufactures the bulk drug product for both parties.

Under certain licensing agreements, the Company is required to make royalty payments to two companies for a combined 2.5% of annual net sales of the HLT Patch.

United States

In the U.S., the HLT Patch is marketed under the brand name Synera by Galen. Synera is approved in the U.S. to provide local dermal analgesia for superficial venous access and superficial dermatological procedures, such as excision, electrodessication and shave biopsy of skin lesions. In July 2013, Nuvo sold the rights to sell and market Synera in the U.S. to Galen for its current indication. Under the terms of the license agreement,

Nuvo earns royalties on the net sales of Synera and is eligible to receive sales milestones. The HLT Patch has an FDA Orange Book listed patent which expires in July 2020.

As at March 27, 2019, the Company owns two U.S. patents covering the HLT Patch or manufacturing thereof, with the latest patent expiring July 7, 2020.

Rest of World

In most countries in the E.U., the HLT Patch is marketed under the trade name Rapydan and is approved for surface anaesthesia of normal intact skin in connection with needle punctures in adults and children from three years of age and for use in cases of superficial surgical procedures on normal intact skin in adults. Nuvo has licensed the sales and marketing rights to Eurocept for all countries in Europe, Israel and the People's Republic of China. Eurocept has responsibility for all commercialization activities and costs, including marketing, selling and medical education in the aforementioned countries. Under the terms of the license agreement, Nuvo earns royalties on the net sales of Rapydan and is eligible to receive sales milestones.

Nuvo holds the sales and marketing rights for the HLT Patch in Mexico, South America, Australia, Africa and most regions in Asia. The HLT Patch is not approved in any of these territories.

The HLT Patch has been studied extensively on more than 1,400 subjects in 26 clinical trials. Trials on the HLT Patch have been conducted in pediatric, adult and geriatric patient populations with Pharmacokinetic (PK) trials, toxicology studies in animals and dermal safety studies in humans supporting the safe use of the HLT Patch. In a controlled clinical trial that compared Synera to EMLA Cream (EMLA), the HLT Patch showed significantly reduced patient-reported pain intensity as compared to EMLA for venous access procedures following application times of 10, 20 and 30 minutes. The p-values for each time point were 0.010, 0.042 and 0.001.

Competitors

The HLT Patch faces competition in all markets from other topically applied local anaesthetic drug products such as compounded anaesthetic creams that are available from certain pharmacies, EMLA Cream (a eutectic mixture of lidocaine 2.5% and prilocaine 2.5%), and L.M.X 4 and L.M.X.5 Anorectal Creams that are available OTC.

Suvexx/Treximet

Suvexx/Treximet (sumatriptan/naproxen sodium) is a migraine medicine that was developed by Aralez's wholly owned subsidiary POZEN, Inc. (POZEN) in collaboration with Glaxo Group Limited, d/b/a GSK. The product is formulated with POZEN's patented technology (now owned by Nuvo) of combining a triptan, sumatriptan 85 mg, with an NSAID, naproxen sodium 500 mg and GSK's RT Technology in a single tablet. In 2008, the FDA approved Treximet (the U.S. brand name) for the acute treatment of migraine attacks, with or without aura, in adults. Treximet is currently available in the United States only.

As of March 27, 2019, Nuvo Ireland owns 37 patents that cover the Suvexx/Treximet product and/or its use, which have been granted in 37 countries, with the latest patent expiring in 2025**.**

Competitors

The competitive market for Suvexx/Treximet includes the triptan class of drugs or 5-HT1 receptor agonists as they are known, which include sumatriptan (Imitrex), rizatriptan (Maxalt), zolmitriptan (Zomig), almotriptan (Axert), naratriptan (Amerge), eletriptan (Relpax) and frovatriptan (Frova).

Vimovo

Vimovo (naproxen/esomeprazole magnesium) is the brand name for a proprietary fixed-dose combination of enteric-coated naproxen, a pain-relieving NSAID, and immediate-release esomeprazole magnesium, a PPI, in a single delayed-release tablet. POZEN developed Vimovo in collaboration with AstraZeneca. On April 30, 2010, the FDA approved Vimovo for the relief of the signs and symptoms of OA, rheumatoid arthritis and ankylosing spondylitis and to decrease the risk of developing gastric ulcers in patients at risk of developing NSAID-associated gastric ulcers. Vimovo is currently commercialized in the U.S. by Horizon and by Grunenthal GmbH (Grunenthal) in various other territories, including Canada, Europe and select additional countries.

Grunenthal will continue to have rights to commercialize Vimovo outside of the United States and Japan and pays the Company a 10% royalty on net sales. Grunenthal's royalty payment obligation with respect to Vimovo expires on a country-by country basis upon the later of (a) expiration of the last-to-expire of certain patent rights related to Vimovo in that country, and (b) ten years after the first commercial sale of Vimovo in such country. The royalty rate may be reduced to the mid-single digits in the event of a loss of market share as a result of certain competing products. As the result of an unfavourable outcome in certain patent litigation in Canada, Mylan's generic naproxen/esomeprazole magnesium tablets became available in Canada in May 2017 and this generic entry will reduce the Company's royalty rate in Canada in the future.

Under the terms of the license agreement with Horizon, the Company receives a 10% royalty on net sales of Vimovo sold in the United States, with guaranteed annual minimum royalty payments of US$7.5 million. The guaranteed annual minimum royalty payments are applicable for each calendar year that certain patents which cover Vimovo are in effect and certain types of competing products are not on the market in the United States. Horizon's royalty payment obligation with respect to Vimovo expires on the later of (a) the last to expire of certain patents covering Vimovo, and (b) ten years after the first commercial sale of Vimovo in the United States. The royalty rate may be reduced to the mid-single digits in the event of a loss of market share as a result of certain competing products. In June 2017, the District Court upheld the validity of two patents owned by Nuvo Ireland and licensed to Horizon covering Vimovo in the United States. Subject to a successful appeal of the decision by the generic competitors party to the suit, this decision is expected to delay generic entry until the expiration of the applicable patents. There is ongoing litigation with respect to other patents covering Vimovo, which if the Company is successful (and subject to a provisional license granted to Actavis effective January 1, 2025), would further prevent generic entry by the remaining generic competitors until March 2031. In February 2018, the Company entered into an amendment to its license agreement with Horizon for Vimovo in the United States that allows Horizon to settle such litigation without the Company's consent in certain circumstances. The Company anticipates that the annual minimum royalty payments will continue to 2022 – the patent life of the product.

As of March 27, 2019, Nuvo Ireland owns 43 patents that cover the Vimovo product and/or its use, which have been granted in 27 countries, the latest patent expiring in 2031**.** The Company anticipates that the annual minimum royalty payments will continue to 2022 – the patent life of the product. See "Legal Proceedings and Regulatory Actions – Vimovo".

Yosprala

Yosprala is currently the only prescription fixed-dose combination of aspirin (acetylsalicylic acid), an anti-platelet agent, and omeprazole, a PPI, in the U.S. It is indicated for patients who require aspirin for secondary prevention of cardiovascular and cerebrovascular events and who are at risk of developing aspirin associated gastric ulcers. Yosprala is designed to support both cardio- and gastro-protection for at-risk patients through the proprietary Intelli-COAT system, which is formulated to sequentially deliver immediate-release omeprazole (40 mg) followed by a delayed-release, enteric-coated aspirin core in either 81 mg or 325 mg dose strengths. Yosprala received FDA approval for Yosprala in September 2016 and was commercially launched in the U.S. in October 2016. Yosprala is currently commercialized in the U.S. by Genus Lifesciences. The Company will receive a low single-digit royalty on net sales by Genus in the U.S. until July 2023.

The competition for PPI-aspirin (PA) products, such as Yosprala, may come from aspirin itself, other aspirin-combination products that may be introduced, as well as other anti-platelet products used for secondary prevention of cardiovascular and cerebrovascular events.

As of March 27, 2019, Nuvo Ireland owns 36 patents that cover the Yosprala product and/or its use, which have been granted in 30 countries, the latest patent expiring in 2032**.**

Products Commercialized by Nuvo

Blexten

Canada

Blexten is a second generation antihistamine drug for the symptomatic relief of allergic rhinitis and chronic spontaneous urticaria. Blexten exerts its effect as a selective histamine H1 receptor antagonist and has an effectiveness comparable to cetirizine and desloratadine. In comparative studies Blexten demonstrated somnolence rates similar to placebo representing a potentially non-sedating effect at therapeutic doses. It was developed in Spain by Faes Farma, S.A. (Faes) Bilastine is approved in Canada and over 100 countries worldwide including Japan and most European countries. In 2014, Aralez Canada entered into an exclusive license and supply agreement with Faes, for the exclusive right to sell bilastine in Canada, which is now named Blexten in Canada. The exclusive license is inclusive of prescription and non-prescription rights for Blexten, as well as adult and pediatric presentations in Canada.

In April 2016, Health Canada approved bilastine with the brand name Blexten (bilastine 20 mg oral tablet) for the treatment of the symptoms of allergic rhinitis and chronic spontaneous urticaria (such as itchiness and hives). Blexten was commercially launched in Canada in December 2016. In April 2018, Aralez executed an amendment to add an ophthalmic formulation of bilastine to the portfolio, which is currently under development. The ophthalmic version of Blexten provides physicians the ability to treat patients suffering from ocular symptoms such as itchy, watery or red eyes, related to seasonal allergies with

a highly effective, non-drowsy and long-lasting formulation. Aralez Canada will owe milestone payments of approximately $3.5 million to Faes if certain sales targets or other milestone events are achieved over the life of the license and supply agreement term.

As at March 27, 2019, Blexten is an in-licensed product that is covered by one Canadian patent expiring April 19, 2022, that provides protection for Blexten and/or its use. Blexten is also entitled data exclusivity for having been a new molecule introduced to Canada upon Health Canada approval in 2016. Blexten's data exclusivity extends through October 2024.

Competitors

The competitive market for Blexten includes: diphenhydramine (Benedryl), hydroxyzine (Atarax), cetirizine (Reactine), desloratadine (Aerius), fexofenadine (Allegra) and loratadine (Claritin). In early 2017, the competitive product Rupall (rupatadine) was launched in Canada.

Cambia

Canada

Cambia (diclofenac potassium for oral solution) is an NSAID and is currently the only prescription NSAID approved in Canada for the acute treatment of migraine attacks with or without aura in adults 18 years of age or older. In 2010, Aralez Canada signed a license agreement with Nautilus Neurosciences, Inc. (Nautilus) for the exclusive rights to develop, register, promote, manufacture, use, market, distribute and sell Cambia in Canada. In 2011, Aralez Canada and Nautilus executed the first amendment to the license agreement, in 2012 executed the second amendment to the license agreement and in 2019 executed a third amendment to the license agreement. The license was assigned by Nautilus to Depomed, Inc. (Depomed) in December 2013. Depomed has subsequently been renamed Assertio Therapeutics Inc. Up to $6.0 million in sales-based milestone payments may be payable over time. Royalty rates are tiered and payable at rates ranging from 22.5% to 27.5% of net sales.

Cambia was approved by Health Canada in March 2012 and was commercially launched to specialists in Canada in October 2012 and broadly to all primary care physicians in February 2013.

As at March 27, 2019, Aralez Canada in-licensed two Canadian patents expiring June 16, 2026, that provide protection for Cambia and/or its use.

Competitors

The competitive market for Cambia includes the triptan class of drugs or 5-HT1 receptor agonists as they are known, which include sumatriptan (Imitrex), rizatriptan (Maxalt), zolmitriptan (Zomig), almotriptan (Axert), naratriptan (Amerge), eletriptan (Relpax) and frovatriptan (Frova).

Other Commercialized Products

Pursuant to the Aralez Transaction, the Company acquired an additional portfolio of products which target a variety of therapeutic areas. The brands are: Bezalip® SR, Durela®,

NeoVisc®, Proferrin®, Fiorinal®, Fiorinal® C, Viskazide®, Visken®, Uracyst®, PurFem®, Collatamp® G, PegaLAX®, Mutaflor®, MoviPrep®, Normacol® and Soriatane™.

Pipeline Products

Suvexx

Through the Aralez Transaction, the Company acquired the global rights to Suvexx. Aralez Canada expects to file a New Drug Submission for Suvexx with Health Canada in the first half of 2019.

Blexten Pediatric

The Company's original license agreement for Blexten included Canadian rights for the pediatric form. Aralez Canada expects to file a Supplemental New Drug Submission for Blexten pediatric with Health Canada in the second half of 2019. Blexten pediatric consists of an oral syrup formulation (10mg/5ml) and an orally dispersible tablet formulation (10mg tablets).

Blexten Ophthalmic

In April 2018, Aralez executed an amendment to add an ophthalmic formulation of Blexten to the portfolio, which is currently under development. The ophthalmic version of Blexten provides physicians the ability to treat patients suffering from ocular symptoms such as itchy, watery or red eyes, related to seasonal allergies with a highly effective, non-drowsy and long-lasting formulation. The Company anticipates filing a New Drug Submission for Blexten ophthalmic with Health Canada in 2020.

Seasonality of Business

Certain products within the Company's product portfolio are subject to seasonal buying patterns and seasonal prescribing patterns. Nuvo is subject to and affected by the business and prescribing practices of its customers. Inventory practices, such as safety stock levels, of our partners may subject Nuvo to product sales fluctuations quarter-to-quarter or year-over-year. Nuvo's net sales and quarterly growth comparisons may also be affected by fluctuations in the buying patterns of retail chains, mail order distributors, wholesalers, and other trade buyers, resulting from seasonality.

Sales and Marketing

The Company's sales and marketing strategy is focused on the organic growth of existing marketed products through several key activities. First, the Company's analytics team seeks to ensure that its sales force engages with appropriate prescribers of the Company's medications or medications that compete with its products. The Company creates demand by calling on and providing healthcare professionals with reliable and trustworthy information, supported by its clinical trials and data from other credible sources, and by coordinating and facilitating continuing health education events in targeted areas. Second, the Company supports its products by providing physicians and other healthcare practitioners with quality patient care materials. Third, the Company endeavours to ensure that its products are accessible through all major wholesalers and distributors in Canada and manages its supply chain efficiently to ensure that it can meet demand. The Company

considers its sales force to be very experienced and well trained. Additionally, the Company offers its representatives a competitive incentive plan based on the achievement of results.

Manufacturing

The Company has a manufacturing facility in Varennes, Québec that produces Pennsaid 2%, Pennsaid and the bulk drug product for the HLT Patch. The Company manufactures these products for all of its global partners for markets where the products are sold. The facility is in compliance with current Good Manufacturing Practices (GMP). This manufacturing facility was last FDA inspected in July 2018, and passed its most recent Health Canada audit in May 2017.

The Company outsources the manufacturing of certain of its products to pharmaceutical manufacturing facilities operated by third-party contractors or authorized, third-party, contract manufacturing organizations in various places throughout the world. These facilities comply with the FDA's current GMP regulations, applicable Health Canada GMP regulations and European Union GMP regulations. The Company's manufacturers are all approved fabricators of pharmaceutical products according to the FDA, Health Canada and European Union, as applicable. The Company believes these facilities have sufficient excess capacity at present to meet its short and long-term objectives. Some of the Company's products are packaged by third-party contract manufacturers.

Intellectual Property

The value of the Company's operations and commercial and drug development candidates, and their future prospects, depends heavily on establishing and protecting valid intellectual property rights. See "Risk Factors – Patents, Trademarks and Proprietary Technology".

Patents

Products Out-Licensed or Manufactured by Nuvo

Pennsaid 2%

The following table summarizes where the Company's partners have commercialized Pennsaid 2% or are working to obtain regulatory approval:

Brand	Therapeutic Area	Licensee or Distributor	Licensed Territories	Intellectual Property
Pennsaid 2%	Osteoarthritis of the knee	Horizon Pharma plc	United States	Nineteen granted U.S. patents listed in the FDA's Orange Book with latest expiry in 2030.
		Paladin Labs Inc.(1)	Canada	One patent granted in Canada expiring in 2027. Pending patent application through 2033.
		NovaMedica LLC(2)	Russia; some Community of Independent States	Two patents granted in Russia with latest expiring in 2033.
		Sayre Therapeutics PVT Ltd(3)	India, Sri Lanka, Bangladesh and Nepal	One patent granted in India expiring in 2027. Pending patent application through 2027.
		Gebro Pharma AG(3)	Switzerland and Liechtenstein	One patent granted in Switzerland expiring in 2027. Pending patent applications in Europe through 2033.

(1) Regulatory approval not yet received in territory.
(2) In February 2017, the Company received notification from NovaMedica LLC that the marketing authorization for Pennsaid 2% had been granted by the Russian Ministry of Health. The marketing authorization is inclusive of the non-prescription, human use of Pennsaid 2% in treating back pain, joint pain, muscle pain and inflammation and swelling in soft tissue and joints associated with trauma and rheumatic conditions (See *Pennsaid 2% - Russia*).
(3) Partner is working to obtain regulatory approval in licensed territory.

The following table summarizes IP for unlicensed Pennsaid 2% territories:

Product	Therapeutic Areas	Intellectual Property
Pennsaid 2%	Osteoarthritis of the knee and/or acute strains and sprains	Patents granted in Australia, Canada, Germany, Denmark, France, Great Britain, Greece, India, Ireland, Israel, Italy, Netherlands, Hong Kong, Japan, Mexico, New Zealand, Russia Federation, South Africa, Switzerland expiring in 2027. Applications pending in 5 countries through 2027. Issued Russian patent and pending patent applications in Australia, Brazil, Canada, Chile, China, Europe, Hong Kong, Israel, Japan, and Mexico through 2033.

Resultz

The following table summarizes where Nuvo Ireland's partners have commercialized Resultz or are working to obtain regulatory approval:

Brand	Therapeutic Area	Licensee or Distributor	Licensed Territories	Intellectual Property
Resultz	Treatment of Head Lice	Aralez Canada	Canada	Two patents granted in Canada expiring in 2023.
		Fagron Belgium NV	Belgium, Netherlands, Luxembourg	Two patents granted in Belgium expiring in 2023. One patent granted in each of the Netherlands and Luxembourg expiring in 2023.
		Heumann Pharma GmbH & Co. Generica KG	Germany	Two patents granted in Germany expiring in 2023
		Reckitt Benckiser (Brands) Limited	United Kingdom, Ireland, France, Spain, Russia, Belarus, Portugal, Australia	Two patents granted in each of the United Kingdom, Ireland, France, Spain, Portugal, and Australia expiring in 2023.
		Sato Pharmaceutical Co., Ltd.[(1)]	Japan	One patent granted in Japan expiring in 2023.

(1) Partner is working to obtain regulatory approval in licensed territory.

The following table summarizes intellectual property for unlicensed Resultz territories:

Product	Therapeutic Area	Intellectual Property
Resultz	Treatment of Head Lice	Patents granted in China (2), Denmark, Greece, India, Italy (2), Monaco, Mexico, New Zealand, Philippines, Sweden and Switzerland expiring in 2023. Two issued US patents with the latest expiring in 2024. One Brazilian patent expiring 2028.

HLT Patch

The following table summarizes where the Company's partners have commercialized the HLT Patch or are working to obtain regulatory approval:

Brand	Therapeutic Area	Licensee or Distributor	Licensed Territories	Intellectual Property
Synera[(1)]	Local Dermal Analgesia (Patch)	Galen US Incorporated	United States	One granted U.S. patent listed in the FDA's Orange Book expiring in 2020. Method of manufacturing patent that expires 2019 (U.S.).
Rapydan[(1)]		Eurocept B.V.	Europe, Russia[(2)], Turkey[(2)], Israel[(2)] and People's Republic of China[(2)]	Granted European patent expiring in 2019.

(1) Synera and Rapydan are the brand names for the HLT Patch in their respective jurisdiction.
(2) Partner is responsible for obtaining regulatory approval in licensed territory.

Suvexx/Treximet

The following table summarizes where Nuvo Ireland has partnered Suvexx/Treximet or are working to obtain regulatory approval:

Brand	Therapeutic Area	Licensee or Distributor	Licensed Territories	Intellectual Property
Suvexx	Migraine Headaches	Aralez Pharmaceuticals Canada Inc.	Canada[(1)]	One patent granted in Canada to 2023.
Treximet		Pernix Ireland Ltd.	U.S.	One patent granted in U.S. to 2025.

(1) Anticipate NDS submission in the first half of 2019.

The following table summarizes intellectual property for unlicensed Suvexx territories:

Product	Therapeutic Area	Intellectual Property
Treximet	Migraine Headaches	Patents granted in AU, AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LT, LU, LV, MC, MK, NL, PT, RO, SE, SI, SK, TR, IL, JP, MX, and NO expiring 2023.

Vimovo

The following table summarizes where Nuvo Ireland's partner has commercialized Vimovo or are working to obtain regulatory approval:

Brand	Therapeutic Area	Licensee or Distributor	Licensed Territories	Intellectual Property
Vimovo	Osteoarthritis/ Rheumatoid Arthritis Pain Relief	Horizon Pharma plc	U.S.	Ten granted U.S. patents listed in the FDA's Orange Book with latest expiry in 2031. Additional patents and pending applications through 2030.
		Grunenthal GmbH	Worldwide (except U.S. and Japan)	Three granted Canadian patents with latest expiry in 2030. European patents granted in AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, and NO expiring 2022. SPCs are pending or granted to 2025/26 in AT, BE, CH, DE, DK, ES, FI, GB, GR, IE, IT, LU, NL, PT, SE and NO. One patent granted in Eurasia[(1)] to 2022. One patent granted in Israel to 2022. One patent granted in Mexico to 2022. Three patents granted in Australia to 2022. Pending European and Brazilian applications through 2030.

(1) Eurasian patent validated in multiple states including Russia.

The following table summarizes intellectual property for unlicensed Vimovo territories:

Product	Therapeutic Areas	Intellectual Property
Vimovo	Osteoarthritis/ Rheumatoid Arthritis Pain Relief	One patent granted in Japan to 2022.

Yosprala

The following table summarizes where Nuvo Ireland's partners has commercialized Yosprala or are working to obtain regulatory approval:

Brand	Therapeutic Areas	Licensee or Distributor	Licensed Territories	Intellectual Property
Yosprala	Secondary prevention of cardiovascular and cerebrovascular events	Genus Lifesciences Inc.	U.S.	Three patents granted in U.S. latest expiring 2023.[1]
		Takeda Pharmaceutical Company Limited	Japan	One patent granted in Japan expiring 2022.

[1] Genus owns additional U.S. patents or patent applications covering Yosprala.

The following table summarizes intellectual property for unlicensed Yosprala territories:

Product	Therapeutic Areas	Intellectual Property
Yosprala	Secondary prevention of cardiovascular and cerebrovascular events	Patents granted in AU, CA, EA*, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, IL, MX, and NO expiring 2022. SPCs are pending or granted to 2025/26 in AT, BE, CH, DE, DK, ES, FI, GB, GR, IE, IT, LU, NL, PT, SE and NO. Patents granted in AU, EA*, NZ and ZA expiring 2030. Patents granted in EA* and UA expiring 2031. Applications pending in BR, AE, CA, EP ID (allowed) and MX latest expiring 2032.

* Validated in multiple states

Products Commercialized by Nuvo

Blexten

The following table summarizes the intellectual property Nuvo has rights to under its license:

Brand	Therapeutic Areas	Licensee or Distributor	Licensed Territory	Intellectual Property
Blexten	Allergies/Urticaria	Aralez Pharmaceuticals Canada Inc.	Canada	One patent granted in Canada to 2022.[1]

[1] In-licensed Patent.

Cambia

The following table summarizes the intellectual property Nuvo has rights to under its license:

Brand	Therapeutic Area	Licensee or Distributor	Licensed Territory	Intellectual Property
Cambia	Migraine Headaches	Aralez Pharmaceuticals Canada Inc.	Canada	Two patents granted in Canada to 2026.[(1)]

[(1)] In-licensed Patent.

Foam Technology

The Company owns two U.S. patents with the latest patent expiring November 22, 2031, an issued patent in Canada expiring March 10, 2031 and pending applications in Europe (allowed) and the U.S. covering DMSO-based foamable formulations. The purchase agreement relating to the Foam Technology also included a commitment to remit a small portion of royalty payments, milestone payments or upfront payments received by the Company for out-licensing of products using the Foam Technology until the end of the applicable patent term, provided the out-licensed products continue to be covered by a valid claim.

Trademarks

The Company holds certain registered trademarks and trademark applications that will cover its pipeline and commercial products.

Confidential Information and Trade Secrets

In addition to patent protection, the confidential nature of the Company's expertise and its trade secrets will provide a period of exclusivity with respect to processes or products developed by, or for, the Company and its exclusive benefit. The Company believes it has taken the necessary steps to protect the confidentiality of its commercially sensitive activities.

Employees

As at December 31, 2018, the Company had 97 full-time employees. Nuvo employees are not subject to any collective bargaining agreements and are not unionized.

Specialized Skill and Knowledge

The Company specializes in the licensing or acquisition of and the sales and marketing of prescription, non-prescription and medical device products in Canada through a direct commercial presence and around the world through distribution partners. The company also has specialized skill in manufacturing non-sterile semi-solid and liquid pharmaceutical-grade compounds at its GMP facility in Varennes, Québec.

The Company is experienced in drug development and navigating the clinical and regulatory pathways in Canada, the U.S. and Europe to out-license its existing products and to in-license new products. The Company from time-to-time will enlist the support of experienced clinical trial, regulatory and legal consultants and will use this and its own expert

knowledge to assist in the successful development of its products and the protection of its intellectual property.

Regulatory Environment and Drug Development Process

The research, development, manufacture and marketing of pharmaceutical products are subject to regulation by the FDA in the U.S., the Therapeutic Products Directorate (TPD) in Canada, the European Medicines Agency (EMA) in Europe and comparable regulatory authorities in other foreign countries. These agencies and other federal, state, provincial and local entities will regulate the testing, manufacture, safety and promotion and sale of the Company's products.

For a pharmaceutical company to launch a new prescription or non-prescription drug, whether innovative (original) or a generic version of a known drug, it must demonstrate to the national regulatory authorities in the countries in which it intends to market the new drug that the drug is effective, safe and of sufficient quality for its intended use and population. Depending upon the circumstances surrounding the clinical evaluation of a drug candidate, the Company may undertake clinical and non-clinical animal studies, contract clinical trial activities to contract research organizations or rely upon future partners for such development. Approval of a product by one regulatory authority does not necessarily imply that it can or will be approved by a regulatory authority responsible for a different jurisdiction.

Although only the jurisdictions of the U.S., the E.U. and Canada are discussed in this section, the Company also intends to seek regulatory approval in other jurisdictions.

Canada

In Canada, all drugs are regulated under the *Food and Drugs Act* (Canada) and are enforced by the Health Products and Food Branch Inspectorate (HPFB) under the auspices of Health Canada. Activities that are regulated include all non-clinical and clinical trials used in support of marketing approval. In addition, the regulations state that GMPs must be adhered to during production of all products intended for human use and to some degree during the development process. The regulatory pathway for a potential drug candidate begins by conducting initial proof-of-concept and preliminary safety studies both in the laboratory and in animals (preclinical studies). After the preclinical studies are completed, applications to conduct human clinical trials with the drug candidate must be submitted to the TPD. This application is referred to as a Clinical Trial Application (CTA). The CTA includes information about the methods of manufacture of the drug and controls associated therewith, and preclinical studies demonstrating safety and potential efficacy of the drug candidate. The TPD has 30 days in which to notify a company if the application is satisfactory by issuance of a No Objection Letter (NOL), after which a company may proceed with clinical trials. In addition, before a clinical trial can commence at each participating clinical trial site, the site's institutional review board (the IRB)/research ethics board (the REB) must approve the clinical trial protocol and other related documents.

After completing all required preclinical and clinical trials, and prior to selling a novel drug in Canada, a company will be required to submit a New Drug Submission (NDS) to the TPD and receive a Notice of Compliance (NOC) to sell the drug. The information contained within the NDS describes the new drug, including the drug's generic and proposed names under which it will be sold, a list describing the quantities and qualities of the ingredients, the method of manufacturing, processing and packaging of the drug, controls in place during the manufacturing operations to determine safety, potency and purity, stability information,

results of non-clinical and clinical trials, intended indications for use of the new drug and the effectiveness of the new drug when used as intended. If, upon review of the NDS by the TPD, the NDS meets the requirements of the *Food and Drugs Act* (Canada) and the regulations thereunder, the TPD will issue the NOC. The TPD has the authority to impose certain post-approval requirements, such as post-market surveillance clinical trials. TPD approval can be withdrawn for failure to comply with any post-marketing requirements or for other reasons, such as the discovery of significant adverse effects.

United States

In the U.S., all drugs are regulated under the Code of Federal Regulations which is enforced by the FDA. The regulations require that non-clinical and clinical studies be conducted to demonstrate the safety and effectiveness of products before marketing and that the manufacturing be conducted according to GMPs. Subsequent to the completion of certain preclinical studies, the application to conduct human clinical trials with the drug candidate is submitted to the FDA. It is referred to as an IND application. This application contains similar information to the Canadian CTA, and the FDA has 30 days in which to notify a company if the application is unsatisfactory. If the application is not deemed unsatisfactory, then a company may proceed with administering the medication to humans in clinical studies. As in Canada, before any clinical trial can commence at each participating clinical trial site, the site's IRB/REB must approve the clinical protocol and other related documents.

After completing all required preclinical and clinical trials, and prior to selling a drug in the U.S., a company must also comply with NDA procedures required by the FDA. The NDA procedure includes the submission of a package containing similar information to that required in the NDS in Canada to indicate safety and efficacy of the drug and describe the manufacturing processes and controls. FDA approval of the submission is required prior to commercial sale or shipment of the product in the U.S. Pre-and/or post-approval inspections of manufacturing and testing facilities are necessary. The FDA may also conduct inspections of the clinical trial sites and the preclinical laboratories conducting pivotal safety studies to ensure compliance with Good Clinical Practice (GCP) and Good Laboratory Practice (GLP) requirements. Similar to the TPD, the FDA has the authority to impose certain post-marketing requirements, such as post-market surveillance clinical and preclinical trials. In addition, FDA approval can be withdrawn for failure to comply with any post-marketing requirements or for other reasons, such as the discovery of significant adverse effects.

Europe

In Europe, the evaluation of applications for new medicinal products submitted for European approval is coordinated by the EMA, a body of the E.U. The regulations are similar to those in Canada and the U.S. and require that preclinical and clinical studies be conducted to demonstrate the safety and effectiveness of products before marketing and that the manufacturing will be conducted according to GMPs. Subsequent to the preclinical studies and prior to conducting human clinical trials, a CTA must be submitted to the competent authority in the country where the clinical trial will be conducted. This application contains similar information to the Canadian CTA and U.S. IND. In Europe, clinical trials are regulated by the European Clinical Trial Directive (Directive 2001/20/EC of April 4, 2001). As in Canada and the U.S., before a clinical trial can commence at each participating clinical trial site, the site's IRB/REB must approve the clinical protocol and other related documents.

A major difference in Europe, when compared to Canada and the U.S., is with the approval process. In Europe, there are two different procedures that can be used to gain marketing authorization in the E.U. The first procedure is referred to as the Centralized Procedure and requires that a single application be submitted to the EMA which, if approved, allows marketing in all countries of the E.U. The second procedure has two options: the first is referred to as the Mutual Recognition Procedure and requires that approval is gained from one Member State after which a request is made to the other Member States to mutually recognize the approval and the second is referred to as the Decentralized Procedure which requires a member state to act as the Reference Member State through a simultaneous application made to other member states.

Drug Development Process

A potential new drug must first be tested in the laboratory and in several animal species (preclinical or non-clinical studies) before being evaluated in humans (clinical studies). Preclinical studies primarily involve in vitro evaluations of the therapeutic activity of the drug and in vivo evaluations of the PK, metabolic and toxic effects of the drug in selected animal species. Ultimately, based on data generated during preclinical studies, extrapolations will be made to evaluate the potential risks versus the potential benefits of use of the drug in humans under specific conditions of use. Upon successful completion of the preclinical studies, the drug typically undergoes a series of evaluations in humans, including healthy volunteers and patients with the targeted disease.

The activities which are typically completed prior to obtaining approval for marketing a new drug product in Canada, the U.S. and E.U. may be summarized as follows:

A. Preclinical Studies: In the preclinical stage of drug development, an investigational drug must be tested extensively in the laboratory to ensure it will be safe to administer to humans. Testing at this stage must provide data showing that the drug is reasonably safe for use in initial, small-scale, clinical studies. Depending on whether the compound has been studied or marketed previously, the sponsor may have several options for fulfilling this requirement including:

   (a) compiling existing non-clinical data from past in vitro laboratory or animal studies on the compound;

   (b) compiling data from previous clinical testing or marketing of the drug in a country whose population is relevant to the target population; or

   (c) undertaking new preclinical studies designed to provide the evidence necessary to support the safety of administering the compound to humans.

   During preclinical drug development, a sponsor evaluates the drug's toxic and pharmacologic effects through in vitro and in vivo laboratory animal testing. Genotoxicity screening is performed, as well as investigations on drug absorption, metabolism, the toxicity of the drug's metabolites and the speed with which the drug and its metabolites are excreted from the body. In North America, sponsors are generally asked, at a minimum, to:

   (a) develop a pharmacological profile of the drug;

(b) determine the acute toxicity of the drug in at least two species of animals; and

(c) conduct short-term toxicity studies ranging from 2 weeks to 3 months, depending on the proposed duration of use of the substance in the proposed clinical studies.

B. Filing of an IND or CTA: The formulation development and preclinical data are submitted to the FDA, TPD or other applicable regulatory body, for review prior to testing in humans.

C. Clinical Trials: Clinical trials involve the administration of the drug to healthy volunteers or patients under the supervision of a qualified investigator. Clinical trials must be conducted in compliance with federal, state and local regulations and requirements, under protocols detailing, for example, the objectives of the trial, the parameters to be used in monitoring safety and the efficacy criteria to be evaluated. Clinical trials to support NDAs or NDSs for marketing approval are typically conducted in three sequential phases, but the phases may overlap.

Phase 1 Trials: Phase 1 trials include the initial introduction of an investigational new drug into humans. These studies are closely monitored and may be conducted in patients, but are usually conducted in healthy volunteer subjects. These studies are designed to determine the metabolic and pharmacologic actions of the drug in humans, the side effects associated with increasing doses, and, if possible, to gain early evidence on effectiveness. During Phase 1, sufficient information about the drug's PKs and pharmacological effects should be obtained to permit the design of well-controlled, scientifically valid, Phase 2 studies. In cases where the Phase 1 studies are conducted on patients and not on healthy volunteers, it is possible that these studies may show evidence of efficacy typically not obtained until Phase 2 studies. These are referred to as Phase 1/2 trials.

Phase 2 Trials: Phase 2 trials are controlled clinical studies conducted to obtain some preliminary data on the effectiveness and safety of the drug for a particular indication or indications in patients with the disease or condition. This phase of testing also helps determine dosage levels, common short-term side effects and risks associated with the drug.

Phase 3 Trials: Phase 3 trials are large controlled and uncontrolled trials. These trials are performed after preliminary evidence suggesting effectiveness and safety of the drug has been obtained in the Phase 2 trials and are intended to gather additional information about effectiveness and safety that is needed to evaluate the overall risk-benefit relationship of the drug. These studies provide an adequate basis for extrapolating the results to the general population and transmitting that information in the physician labelling.

Filing of an NDA or NDS: An NDA or NDS filing with the relevant regulatory authority in the U.S., Canada, E.U. or other pertinent jurisdiction documents the safety and efficacy of the IND and contains all the information collected during the drug development process including the preclinical studies, chemistry, manufacturing and controls (CMC) and the clinical trials. At the conclusion of successful preclinical, CMC and clinical testing, this series of documents is submitted to the regulatory authority. The application must present substantial evidence that the drug will have the effect it is represented to have when people use it or under the conditions for which it is prescribed, recommended or suggested in the

labelling. Obtaining approval to market a new drug typically takes between ten months and two years after submission of an application to the applicable regulatory authority.

Once the data is reviewed and approved by the appropriate regulatory authorities, such as the TPD, FDA or EMA, the drug is deemed ready for sale. These authorities and other applicable regulatory bodies will determine whether the drug will be a prescription or non-prescription product based on factors such as the age and history of the drug, the number of patients having reported adverse effects and how well the drug is documented with respect to safety and efficacy. Given that innovative drugs have no long-term history of public use, it is unlikely that an innovative drug would be approved in the first instance as a non-prescription product.

After marketing approval for a drug has been obtained, further studies and clinical trials may be required or requested by the regulatory authorities. The FDA refers to these as Post-marketing Requirements (PMRs) and Commitments. Post-marketing trials may provide additional data about a product's safety, efficacy or optimal use. Some of the studies and clinical trials may be required; others may be studies or clinical trials a sponsor has committed to conduct. PMRs include studies and clinical trials that sponsors are required to conduct under one or more statutes or regulations. Some post-marketing commitments are studies or clinical trials that a sponsor has agreed to conduct, but that are not required by a statute or regulation. Failure to conduct or comply with an established timetable for completing PMRs may result in enforcement actions by the FDA that could include charges or civil monetary penalties. In addition, the FDA may prevent the marketing of the product in the U.S.

RISK FACTORS

The Company faces a variety of significant and diverse risks, many of which are inherent in the business conducted by the Company. Described below are certain risks that could materially affect the Company. Other risks and uncertainties that the Company does not presently consider to be material, or of which the Company is not presently aware, may become important factors that affect the Company's future financial condition and operating results. The occurrence of any of the risks discussed below could materially and adversely affect the Company's business, prospects, financial condition, operating results, cash flow or market value of the Common Shares.

Risks Related to the Business of the Company

Inability to Meet Debt Commitments

As of December 31, 2018, the Company had total liabilities of $180.9 million, including $161.7 million of principal debt outstanding under the Deerfield Facility Agreement.

Having a substantial amount of leverage may have important consequences, including:

- requiring a substantial portion of cash flow from operations to be dedicated to servicing the Company's indebtedness, thereby reducing the ability to use cash flow from its operations to fund operations, capital expenditures, and future business opportunities;

- the Deerfield Facility Agreement is secured by the assets of the Company and its subsidiaries;

- limiting the ability to obtain additional financing for working capital, capital expenditures, product and service development, debt service requirements, acquisitions, and general corporate or other purposes at reasonable rates, which is vital to the Company's business;

- increasing the risks of adverse consequences resulting from a breach of any indebtedness agreement, including, for example, a failure to make required payments of principal or interest due to failure of the Company's business to perform as expected;

- increasing vulnerability to general economic and industry conditions;

- restricting the ability to make strategic acquisitions or requiring non-strategic divestitures;

- subjecting the Company's operations to restrictive covenants that may limit operating flexibility; and

- placing the Company's operations at a competitive disadvantage compared to competitors that are less highly leveraged.

The Company's ability to satisfy its debt obligations will depend principally upon its future operating performance. As a result, prevailing economic conditions and financial, business and other factors, many of which are beyond the Company's control, may affect the Company's ability to make payments on its debt. If the Company does not generate sufficient cash flow to satisfy its debt service obligations, the Company may have to undertake alternative financing plans, such as refinancing or restructuring its debt, cost savings initiatives, proceeds-generating transactions, reducing or delaying capital investments or seeking to raise additional capital. The Company's ability to restructure or refinance its debt will depend on the capital markets and the Company's financial condition at such time. Any refinancing of the Company's debt could be at higher interest rates and may require it to comply with more onerous covenants, which could further restrict the Company's business operations. The Company's inability to generate sufficient cash flow to satisfy its debt service obligations or to refinance its obligations on commercially reasonable terms could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

The Deerfield Facility Agreement imposes various covenants that limit the Company's ability and/or its subsidiaries' ability to, among other things:

- consolidate or merge with or into another person;

- enter into certain transactions with affiliates;

- pay dividends or distributions;

- create, incur or suffer to exist liens;

- create, incur, assume, guarantee or be liable with respect to indebtedness;
- acquire assets or transfer products or material assets; and
- issue equity securities senior to its Common Shares or convertible or exercisable for equity securities senior to its Common Shares.

The covenants imposed by the Deerfield Facility Agreement and the Company's obligations to service its outstanding debt:

- limit the Company's ability to borrow additional funds for working capital, capital expenditures, acquisitions or other general business purposes;
- limit the Company's ability to use its cash flow or obtain additional financing for future working capital, capital expenditures, acquisitions or other general business purposes;
- may require the Company to use a substantial portion of its cash flow from operations to make debt service payments;
- limit the Company's flexibility to plan for, or react to, changes in its business and industry;
- place the Company at a competitive disadvantage compared to its less leveraged competitors; and
- increase the Company's vulnerability to the impact of adverse economic and industry conditions.

If the Company is unable to successfully manage the limitations and decreased flexibility on its business due to its debt obligations, the Company may not be able to capitalize on strategic opportunities or grow its business to the extent the Company would be able to without these limitations. The Company's failure to comply with any of the covenants could result in a default under the Deerfield Facility Agreement, which could permit the lenders to declare all or part of any outstanding loans to be immediately due and payable. If the Company is unable to pay the outstanding loans when due, then Deerfield could realize on its security, which encompasses the assets of Company and its subsidiaries.

In addition, pursuant to the Deerfield Financing, if a Major Transaction (as defined in the Deerfield Facility Agreement) occurs, such as a change of control transaction involving the Company, Deerfield is entitled, subject to the terms of the Deerfield Financing, to convert or exercise its Convertible Notes or Warrants, as applicable, such that Deerfield ultimately receives the cash, securities or other assets, as applicable, in exchange for such Common Shares on the same terms as other holders of Common Shares. This could materially adversely impact the anticipated results, or deter the entering into, of such a Major Transaction. In addition, Deerfield, in relation to certain Major Transactions or events of default, is entitled to be issued additional Common Shares. See the Deerfield Facility Agreement and the forms of Convertible Notes and Warrants filed under the Company's profile on SEDAR www.sedar.com.

Unexpected Costs or Liabilities Related to the Aralez Transaction

Although the Company conducted due diligence in connection with the acquisition of Aralez Canada, an unavoidable level of risk remains regarding any undisclosed or unknown liabilities of, or issues concerning, Aralez Canada and its business. The Company may discover that it has acquired substantial undisclosed liabilities. In such circumstances, the Company will not be able to fully claim indemnification from the sellers of Aralez Canada, as the Purchase Agreements did not include indemnification provisions given that Aralez Canada and related assets were purchased pursuant to the Bankruptcy Proceedings. The Company did obtain the RWI Policy to cover any potential liability under the Purchase Agreements, with coverage of up to $10 million and a deductible of $1.1 million, which drops to $550,000 after 12 months under certain circumstances. However, the RWI Policy is subject to certain exclusions. In addition, there may be circumstances for which the insurer may elect to limit such coverage or refuse to indemnify the Company or situations for which the coverage provided under the RWI Policy may not be sufficient or applicable. The existence of any undisclosed liabilities and the Company's inability to claim indemnification could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Economic Environment

Economic conditions may limit the Company's ability to access capital or may cause the Company's suppliers to increase their prices, reduce their output or change their terms of sale. If the operating or financial performance of the Company's customers or suppliers deteriorates or if they are unable to make scheduled payments or obtain credit, its customers may not be able to pay or may delay payment of accounts receivable owed and its suppliers may restrict credit or impose different payment terms. Any inability of customers to pay the Company for its products or any demands by suppliers for different payment terms, could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

The Company has no control over changes in inflation and interest rates, foreign currency exchange rates and controls or other economic factors affecting its business nor does it have control over the possibility of political unrest and legal and regulatory changes in jurisdictions in which the Company operates. These factors could negatively affect the Company's future results of operations in those markets.

Potential Product Liability

The Company may be subject to product liability claims associated with the use of certain of its products either after their approval or during clinical trials and there can be no assurance that the Company's liability insurance will continue to be available on commercially reasonable terms or at all. Product liability claims might also exceed the amounts or fall outside of such coverage. Product liability claims against the Company, regardless of their merit or potential outcome, could be costly and divert management's attention from other business matters or adversely affect the Company's reputation and the demand for its products. There can be no assurance that a product liability claim or series of claims brought against the Company would not materially adversely impact the Company's business, financial condition or operating results.

In addition, certain drug retailers and distributors require minimum liability insurance as a condition of purchasing or accepting products for retail or wholesale distribution. Failure

to satisfy such insurance requirements could impede the ability of the Company or its potential partners in achieving broad retail distribution of its products, which could materially adversely impact the Company.

Limited Product Shelf Life

Each of the Company's products has a limited shelf life. Accordingly, any product which exceeds the appropriate age limits may not be sold, may result in product returns and must be destroyed, which would in turn have an adverse financial impact on the Company associated with the cost of writing-off obsolete inventory.

Unexpected Product Safety or Efficacy Concerns

Unexpected safety or efficacy concerns can arise with respect to marketed products, whether or not scientifically justified, leading to product recalls, withdrawals or declining sales, as well as potential product liability, consumer fraud or other claims. Any of such occurrences could materially adversely impact the Company's business, financial condition or operating results.

Patents, Trademarks and Proprietary Technology

There can be no assurance as to the breadth or degree of protection that existing or future patents or patent applications may afford the Company or that any patent applications will result in issued patents or that the Company's patents or trademarks will be upheld if challenged. It is possible that the Company's existing patent or trademark rights may be deemed invalid. Although the Company believes that its products do not, and will not, infringe valid patents or trademarks or violate the proprietary rights of others, it is possible that use, sale or manufacture of its products may infringe on existing or future patent, trademark or proprietary rights of others. If the Company's products infringe the patent, trademark or proprietary rights of others, the Company may be required to stop selling or making certain of its products, may be required to modify or rename certain of its products or may have to obtain licenses to continue using, making or selling such products. There can be no assurance that the Company will be able to do so in a timely manner, upon acceptable terms and conditions, or at all. The failure to do any of the foregoing could materially adversely impact the Company. In addition, there can be no assurance that the Company will have sufficient financial or other resources to enforce or defend a patent infringement or proprietary rights violation action. Moreover, if the Company's products infringe patents, trademarks or proprietary rights of others, the Company could, under certain circumstances, become liable for substantial damages which could materially adversely impact the Company.

Regardless of the validity of the Company's patents, there can be no assurance that others will be unable to obtain patents or develop competitive non-infringing products or processes that permit such parties to compete with the Company. The Company may not be able to protect its intellectual property rights throughout the world as filing, prosecuting and defending patents and trademarks on all of the Company's product candidates, products and product names, when and if they exist, in every jurisdiction would be prohibitively expensive and could take several years. Competitors may manufacture, sell or use the Company's technologies and use its trademarks in jurisdictions where the Company or its partners have not obtained patent and trademark protection. These products may compete with the Company's products, when and if it has any, and may not be covered by any of its or its partners' patent claims or other intellectual property rights.

The laws of some countries do not protect intellectual property rights to the same extent as the laws of Canada and the U.S. and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favour the enforcement of patents, trademarks and other intellectual property protection, particularly those protections relating to biotechnology and pharmaceuticals, which could make it difficult for the Company to stop the infringement of its patents. Proceedings to enforce patent rights in foreign jurisdictions could result in substantial cost and divert efforts and attention from other aspects of the Company's business.

The discovery, trial and appeals process in patent litigation can take several years. Should the Company commence a lawsuit against a third party for patent infringement or should there be a lawsuit commenced against the Company with respect to the validity of its patents or any alleged patent infringement by the Company, the cost of such litigation, as well as the ultimate outcome of such litigation, whether or not the Company is successful, could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Ability to Protect Know How and Trade Secrets

The ability of the Company to maintain the confidentiality of its expertise and trade secrets is essential to its success. Disclosure and use of the Company's expertise and trade secrets, not otherwise protected by patents, are generally controlled under agreements with the parties involved. There can be no assurance however, that all confidentiality agreements are legally enforceable or will be honoured, that others will not independently develop equivalent or competing technology, that disputes will not arise over the ownership of intellectual property or that disclosure of the Company's trade secrets will not occur. To the extent that consultants or other research collaborators use intellectual property owned by others while working with the Company, disputes may also arise over the rights to related or resulting expertise or inventions.

Inability to Achieve Drug Development Goals within Expected Time Frames

From time-to-time, the Company sets targets and makes public statements regarding its expected timing for achieving drug development goals. These include targets for the commencement and completion of preclinical and clinical trials, studies and tests and anticipated regulatory filing and approval dates. These targets are set based on a number of assumptions that may not prove to be accurate. The actual timing of these forward-looking events can vary dramatically from the Company's estimates or they might not be achieved at all, due to factors such as delays or failures in clinical trials or preclinical work, scheduling changes at Contract Research Organizations (CROs), the need to develop additional data required by regulators as a condition of approval, the uncertainties inherent in the regulatory approval process, delays in achieving manufacturing or marketing arrangements necessary to commercialize product candidates and limitations on the funds available to the Company. If the Company does not meet these targets, including those which are publicly announced, the ultimate commercialization of its products may be delayed and, as a result, its business could be harmed.

Uncertainty of Drug Research and Development

There can be no assurance that any of the Company's product candidates will be successfully developed in a timely manner or that they will prove to be more effective than

products based on existing or new technologies or that a sufficient number of medical professionals will recommend their use. The risk that a product candidate may fail clinical trials, the Company may be unable to successfully complete development or a decision for financial or other reasons to halt development of any product candidate, particularly in instances where significant capital expenditures have already been made, could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

There can be no assurance that preclinical or clinical testing of the Company's product candidates will yield sufficiently positive results to enable progress toward commercialization and any such trials will take significant time to complete. Unsatisfactory results may prompt the Company to reduce or abandon future testing or commercialization of particular product candidates and this could materially adversely impact the Company.

Due to the inherent risk associated with R&D efforts in the pharmaceutical industry, particularly with respect to new drugs, the Company's R&D expenditures may not result in the successful introduction of government approved new pharmaceutical products. Also, after submitting a drug candidate for regulatory approval, the regulatory authority may require additional studies, and as a result, the Company may be unable to reasonably predict the total R&D costs to develop a particular product.

Clinical Trials

The Company and its drug development partners must demonstrate, through preclinical studies and clinical trials, that any product being developed is safe and efficacious before obtaining regulatory approval for the commercial sale of such product. The results of preclinical studies and previous clinical trials are not necessarily predictive of future results and the Company's current product candidates may not have favourable results in later testing or trials. Preclinical tests and Phase 1 and Phase 2 clinical trials are primarily designed to test safety, to study pharmacokinetics and pharmacodynamics and to understand the side effects of products at various doses and schedules. Success in preclinical or animal studies and early clinical trials does not ensure that later large-scale efficacy trials will be successful and such success is not necessarily predictive of final results. Favourable results in early trials may not be repeated in later trials and positive interim results do not ensure success in final results. Even after the completion of Phase 3 clinical trials, the FDA, TPD, EMA or other regulatory authorities may disagree with the clinical trial design and interpretation of data and may require additional clinical trials to demonstrate the efficacy of product candidates.

A number of companies in the biotechnology and pharmaceutical industry have suffered significant setbacks in advanced clinical trials, even after achieving promising results in earlier trials and preclinical studies. The Company suffered a similar setback with the results of its 2016 Pennsaid 2% ankle sprain trial. In many cases where clinical results were not favourable, were perceived negatively or otherwise did not meet expectations, the share prices of these companies declined significantly. Failure to complete clinical trials successfully and to obtain successful results on a timely basis could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Reliance on Third Parties to Conduct Clinical and Preclinical Studies

The Company and its drug development partners rely on third parties such as CROs, medical institutions and clinical investigators to enroll qualified patients, conduct, supervise and monitor its clinical trials, conduct preclinical studies and complete CMC work. The reliance on these third parties for clinical development activities reduces the Company's control over these activities. Further, the reliance on these third parties does not relieve the Company or its drug development partners of their regulatory responsibilities, including ensuring that its clinical trials are conducted in accordance with GCPs and that its preclinical studies are conducted in accordance with GLPs. Furthermore, these third parties may have relationships with other entities, some of which may be competitors. In addition, they may not complete activities on schedule or may not conduct preclinical studies or clinical trials in accordance with regulatory requirements or the Company's trial design. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, the Company's ability to obtain regulatory approvals for product candidates may be delayed or prevented which could in turn could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Personnel

The Company's success depends upon certain key members of its sales and marketing, legal, business development, scientific, technical, manufacturing and management teams. The loss of any of these individuals could materially adversely impact the Company. The Company does not maintain key-man insurance coverage with respect to any of its employees.

The Company's success also depends, in large part, on its ability to continue to attract and retain qualified sales and marketing, legal, business development, scientific, technical, manufacturing and management personnel. The Company faces intense competition for such personnel. Highly skilled employees with the education and training required, especially employees with significant experience and expertise in drug delivery systems, are in high demand and may be hired by the Company's competitors. The Company may not be able to attract and retain such personnel in the future which could have a material adverse impact on the success of the Company.

The Company must also provide significant training for its employees due to the highly specialized nature of pharmaceutical products. With respect to its sales force, the Company is required to expend significant time and resources on training to establish credible, compliant and persuasive individuals in educating physicians to prescribe and pharmacists to dispense the Company's products. In addition, the Company must train its sales force to ensure that a consistent and appropriate message about its products is being delivered to its potential customers. If the Company is unable to effectively train its sales force and equip them with effective materials its efforts to successfully commercialize its products could be put in jeopardy, which could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Further, the Company expects that its growth and potential expansion into specific areas and activities requiring new or additional expertise, such as in the areas of alliance management, product development, CMC work, clinical trials and regulatory approvals may place additional requirements on management, and the Company's operational and financial

resources. Such demands could require an increase in the number of management and scientific personnel and development of additional expertise by existing personnel. The failure to attract and retain such personnel, or to develop such expertise, could materially adversely impact the Company. In addition, to attract qualified personnel, the Company may be required to establish offices in different locations. The failure of personnel in different locations to work effectively together could materially adversely impact the Company's success.

Dependence on a Small Number of Customers

The Company sells certain of its products in Canada, the U.S. and E.U. to a limited number of distributors. Under this distribution model, the distributors generally take physical delivery of the product and generally sell the product directly to pharmacies or patients. In addition, certain of the Company's products may be highly dependent on a small number of customers. The Company expects this significant distributor/customer concentration to continue for the foreseeable future. The Company's ability to generate and grow sales of its products will depend, in part, on the extent to which its distributors are able to provide adequate distribution of its products on pricing terms that are favorable to it. Although the Company believes it can find additional or replacement distributors, if necessary, the pricing terms of such arrangements may not be as favourable to the Company, its revenue during any period of disruption could suffer and the Company might incur additional costs. In addition, these distributors/customers are responsible for a significant portion of the Company's net trade accounts receivable balances. The loss of any large distributor/customer, a significant reduction in sales the Company make to them, any cancellation of orders they have made with the Company, or any failure to pay for the products the Company has shipped to them could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Dependence on Third-Party Partnerships for Sales, Marketing, Customer Service, Distribution, Warehousing, Logistics, Invoicing and Accounts Receivables and Regulatory Services

Regarding products commercialized by Nuvo, the Company relies on third-party arrangements, to provide customer service, distribution, warehousing, logistics, invoicing, accounts receivables and some regulatory services where it lacks the necessary resources or expertise. If the third parties cease to be able to provide the Company with these services or do not provide these services in a timely or professional manner, or in accordance with the applicable regulatory requirements or if contracts with such third parties are terminated for any reason, the Company may not be able to successfully manage the logistics associated with distributing and selling its products.

Regarding products out-licensed by the Company, or products manufactured for third parties under contract, the Company relies on marketing arrangements, including licensing or other third-party arrangements, to provide sales, marketing, distribution, logistics, invoicing and regulatory services including warehousing of finished products, accounts receivable management, billing, collection, record keeping and processing of invoices (including with insurance companies) for its products in jurisdictions where it lacks the necessary resources or expertise. If the third parties cease to be able to provide the Company with these services or do not provide these services in a timely or professional manner, or in accordance with the applicable regulatory requirements or if contracts with

such third parties are terminated for any reason, the Company may not be able to successfully manage the logistics associated with distributing and selling its products.

In either case, this could result in a delay or interruption in delivering products to customers and could impact product sales and revenues or the Company's ability to integrate new products into its business, any of which could materially adversely impact the Company's business, financial condition, operating results or royalties earned. In addition, under these arrangements, disputes may arise with respect to payments that the Company or its partners believe are due, a partner or distributor may develop or distribute products that compete with the Company's products or they may terminate the relationship. Further, disagreements with the Company's third-party partners could require or result in litigation or arbitration, which could be time consuming and expensive for the Company.

The Company has no influence in sales and marketing activities for products that are sold by third parties in the markets in which they are currently available. Decisions impacting sales and marketing efforts are made by the Company's partners in their respective territories. If one of the Company's partners is unable to successfully sell or stops selling its respective product, for any reason, it could have an adverse effect on the Company's product sales and cash resources, as well as royalties earned.

Loss of Licenses

The Company has licensed certain assets used in a substantial part of the Company's business, including certain intellectual property, marketing authorizations and related data, and commercial and technical medical information. The Company believes it is currently in material compliance with all requirements of such licenses. In certain cases, the Company does not control the filing, prosecution or maintenance of the patent rights underlying a license and may rely upon the Company's licensors to prosecute infringement of those rights. Such license agreements may be terminated by the licensor if the Company is in breach of its obligations thereunder and fails to cure that breach. If a license agreement is terminated, then the Company may lose its rights to utilize the intellectual property and other assets covered by such agreement in order to manufacture, market, promote, distribute and sell the licensed products, which may prevent the Company from continuing a substantial part of the Company's business. This could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Timing of Milestone and Royalty Payments

The Company is party to various agreements pursuant to which the Company is obligated to make milestone payments or pay royalties to third parties. The Company may become obligated to make a milestone or other payment at a time when the Company does not have sufficient funds to make such payment, or at a time that would otherwise require it to use funds needed to continue to operate its business, which could curtail its operations, necessitate a scaling back of its commercialization and marketing efforts or cause the Company to seek funds to meet these obligations on terms unfavorable to it.

Manufacturing, Warehousing and Supply Risks

The Company's current internal manufacturing capabilities are limited to its site in Varennes, Québec, which is the sole manufacturing site of Pennsaid 2%, Pennsaid and the bulk drug product for the HLT Patch for all markets. The Company has never achieved full

capacity utilization in this facility. The Company is exposed to the following manufacturing and supply risks, any of which could delay or prevent the commercialization of certain of its products, result in higher costs or deprive it of potential product revenues:

- The Company may encounter difficulties in achieving volume production, quality control and quality assurance, as well as relating to shortages of qualified personnel, which may lead to insufficient quantities to commercialize certain of its customer needs;

- The Company's manufacturing facilities are required to undergo satisfactory current GMP inspections prior to regulatory approval and are obliged to operate in accordance with FDA, E.U. and other nationally mandated GMP, which govern manufacturing processes, stability testing, record keeping and quality standards. Failure to establish and follow GMPs and to document adherence to such practices, may lead to significant delays in the availability of material for customer orders; and

- Changing manufacturing locations would be difficult and the number of potential manufacturers is limited. Changing manufacturers generally requires re-validation of the manufacturing processes and procedures in accordance with FDA, E.U. and other nationally mandated GMPs. Such re-validation may be costly and would be time consuming. It would be difficult or impossible to quickly find replacement manufacturers on acceptable terms, if at all.

The Company's manufacturing facility is subject to ongoing periodic unannounced inspection by the FDA and corresponding agencies, including E.U. and Canadian agencies, and may be subject to inspection by local, state, provincial and federal authorities from various jurisdictions to ensure strict compliance with GMPs and other government regulations. Failure by the Company to comply with applicable regulations could result in sanctions being imposed on it, including fines, injunctions, civil penalties, failure of the government to grant review of submissions or market approval of drugs, delays, suspension or withdrawal of approvals, seizures or recalls of product, operating restrictions, facility closures and criminal prosecutions, any of which could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

The Company may encounter manufacturing or warehousing and logistical failures that could impede or delay commercial production of its products. Any failure in the Company's manufacturing or warehousing and logistical operations could cause the Company to be unable to meet the demand for its products and lose potential revenue and harm its reputation. The Company's manufacturing and warehousing and logistical operations may encounter difficulties involving, among other things, production yields, regulatory compliance, quality control and quality assurance and shortages of qualified personnel.

With the exception of Pennsaid 2%, Pennsaid and the bulk drug product for the HLT Patch, the Company relies on several contract manufacturers for the supply of products. There are risks that could affect the ability of the Company's contract manufacturers to meet the Company's delivery time requirements or provide adequate amounts of material to meet the Company's needs. In addition to the manufacture of certain of the Company's products, the Company may have additional manufacturing requirements related to the technology required for any of the Company's products. In some cases, the delivery technology the Company utilizes is highly specialized or proprietary and for technical and legal reasons, the

Company may have access to only one or a limited number of potential manufacturers for such delivery technology. Failure by these manufacturers to properly formulate the Company's products or licensed products for delivery could also result in unusable product and cause delays in the Company's discovery and development process, as well as additional expense to the Company.

The manufacturing process for products where the Company uses a contract manufacturer are based on technologies that the Company or its partners may develop and are subject to regulatory approvals from regulatory authorities, including the FDA, Health Canada, EMA, state and local regulations and other regulatory agencies as well as compliance with ongoing regulatory requirements. Together with the Company's partners, the Company needs to contract with manufacturers who can meet all applicable regulatory guidelines and requirements. In addition, if the Company receives the necessary regulatory approval for any product candidate, it also expects to rely on third parties, including its commercial partners, to produce materials required for commercial supply. The Company may experience difficulty in obtaining adequate manufacturing capacity for its needs. If the Company is unable to obtain or maintain contract manufacturing for its product candidates, products or licensed products, or to do so on commercially reasonable terms, the Company may not be able to successfully develop and commercialize its products or licensed products. If a third-party manufacturer with whom the Company contracts fails to perform its obligations, the Company may be forced to manufacture the materials itself, which the Company may not have the necessary capabilities or resources for, or enter into an agreement with a different third-party manufacturer, which the Company may not be able to do on equally favourable terms, within acceptable timelines or that complies with quality standards and with all applicable regulations and guidelines.

In the case of many of the Company's products, there is a single supplier for raw materials used in such products. If the relationships with any of the single-sourced suppliers is discontinued or if any manufacturer is unable to supply or produce required quantities of product on a timely basis, or at all, or if a supplier ceases production of an ingredient or component, the Company's operations would be negatively impacted and the business would be harmed.

In addition, the FDA and other regulatory agencies require that raw material manufacturers comply with all applicable regulations and standards pertaining to the manufacture, control, testing and use of the raw materials as appropriate. For the API or critical raw materials depending on the drug product, this means compliance with current GMPs for APIs and submission of all data related to the manufacture, control and testing of the API for quality, purity, identity and stability, as well as a complete description of the process, equipment, controls and standards used for the production of the API. This is usually submitted to the FDA in the form of a DMF by the manufacturer and referenced by the sponsor of the NDA. The DMF information and data is reviewed by the FDA as a critical component of the approvability of the NDA. As a result, in the case where only one supplier of a particular API or critical raw material meets all of the FDA's (or other regulatory agencies) requirements and has a DMF (or similar filing) on file with the FDA, the Company is at risk should a supplier violate GMP, fail an FDA inspection, terminate access to its DMF, be unable to manufacture product, choose not to supply the Company or decide to increase prices.

In addition, the Company could be subject to various import duties applicable to both finished products and raw materials and it may be affected by other import and export restrictions, as well as developments with an impact on international trade. Under certain

circumstances, these international trade factors could affect manufacturing costs, which could in turn, affect the Company's margins, as well as the wholesale and retail prices of manufactured products.

Failure to Achieve Anticipated Benefits From Strategic Acquisitions

A significant part of the Company's business strategy includes acquiring and integrating complementary businesses, products, technologies or other assets, and forming strategic alliances and other business combinations, to help drive future growth. The Company may also in-license new products or compounds. Acquisitions or similar arrangements may be complex, time-consuming and expensive, and the process of negotiating the acquisition and integrating an acquired product, drug candidate, technology, business or company might result in operating difficulties and expenditures and might require significant management attention that would otherwise be available for ongoing development of the Company's business, whether or not any such transaction is ever completed. Moreover, the Company may never realize the anticipated benefits of any acquisition or forecasted sales may not materialize.

In addition, the Company may explore, pursue and/or negotiate transactions that are not ultimately completed and there are a number of risks, costs and uncertainties relating thereto. For example, the market price of the Company's Common Shares may reflect a market assumption that such transactions will occur, and a failure to complete such transactions could result in a negative perception by the market of the Company generally and a decline in the price of its Common Shares. In addition, many costs relating to such transactions may be payable by the Company whether or not such transactions are completed.

If an acquisition is completed, the integration of the acquired business, product or other assets into the Company may also be complex and time-consuming and, if such businesses, products and assets are not successfully integrated, the Company may not achieve the anticipated benefits, cost-savings or growth opportunities. Potential difficulties that may be encountered in the integration process include the following:

- disruption of the Company's business and diversion of management's and employees' time and attention from operations;
- integrating personnel, operations, manufacturing technology and systems, while maintaining focus on selling and promoting existing and newly-acquired products;
- coordinating geographically dispersed organizations;
- motivating key employees of the acquired businesses;
- retaining existing customers and attracting new customers;
- maintaining the business relationships of the acquired company or that the company that previously owned such product has established, including with healthcare providers, third-party payers and distributors; and
- managing inefficiencies associated with integrating the operations of the Company.

The Company has incurred, and may incur in the future, restructuring and integration costs and a number of non-recurring transaction costs associated with these acquisitions. Non-recurring transaction costs include, but are not limited to, fees paid to legal, financial, regulatory, manufacturing and accounting advisors, filing fees, transfer and other transaction-related taxes and printing costs. Additional unanticipated costs may be incurred in the integration of the businesses of the Company and the acquired business. There can be no assurance that the elimination of certain duplicative costs, as well as the realization of other efficiencies related to the integration of the acquired business, will offset the incremental transaction-related costs over time. Therefore, any net benefit may not be achieved in the near term, the long term or at all.

Finally, these acquisitions and other arrangements, even if successfully integrated, may fail to further the Company's business strategy as anticipated or to achieve anticipated benefits and success, expose it to increased competition or challenges with respect to its products or geographic markets, and expose it to additional or unexpected liabilities associated with an acquired business, product, technology or other asset or arrangement. Any one of these challenges or risks could impair the Company's ability to realize any benefit from an acquisition or arrangement after the Company has expended resources on them.

Failure to Acquire, License, Develop and Market Additional Product Candidates or Approved Products

As part of its strategy, the Company may acquire, license or develop and market additional products and product candidates. The product candidates where the Company allocates its resources may not be successful. In addition, because its internal research capabilities are limited, the Company may depend upon pharmaceutical, biotechnology and other researchers to sell or license products or technology. The success of this strategy depends partly upon the Company's ability to identify, select, license and/or acquire promising pharmaceutical or other healthcare product candidates and approved products for Canada, the United States and the rest of the world. Failure of this strategy could impair the Company's ability to grow. The process of proposing, negotiating and implementing a license or acquisition of a product candidate or approved product is lengthy and complex. Other companies, including some with substantially greater financial, marketing and sales resources, may compete with the Company for the license or acquisition of product candidates and approved products. The Company may devote resources to potential acquisitions or in-licensing opportunities that are never completed, or the Company may fail to realize the anticipated benefits of such efforts. The Company may not be able to acquire the rights to additional product candidates or approved products on terms that the Company find acceptable, or at all.

Further, any unapproved product candidate that the Company acquires may require additional development efforts prior to commercial sale, including extensive clinical testing and approval by applicable regulatory authorities. With all product candidates there are risks of failure typical of pharmaceutical product development, including the possibility that a product candidate will not be shown to be sufficiently safe and effective for approval by applicable regulatory authorities and thus will never make it to market. If such risks were to materialize, the could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Hazardous Materials and the Environment

The Company's products involve the use of potentially hazardous materials, and as a result, it is exposed to potential liability claims and costs associated with complying with laws regulating hazardous waste. R&D and manufacturing activities involve the use of hazardous materials, including chemicals, and are subject to federal, provincial and local laws and regulations governing the use, manufacture, storage, handling and disposal of hazardous materials and waste products. However, accidental injury or contamination from these materials may occur. In the event of an accident, the Company could be held liable for any damages, which could exceed its available financial resources. In addition, the Company may be required to incur significant costs to comply with environmental laws and regulations in the future.

Losses Due to Foreign Currency Fluctuations

The Company anticipates that a high percentage of the revenue from commercialization of its product candidates may be in currencies other than Canadian dollars. Fluctuation in the exchange rate of the Canadian dollar relative to these other currencies could result in the Company realizing a lower profit margin on sales of its product candidates than anticipated at the time of entering into such commercial agreements. Adverse movements in exchange rates could materially adversely impact the Company's business, financial condition or operating results.

Taxes

Significant judgment is required in determining the Company's provision for income taxes and claims for investment tax credits (ITCs) related to qualifying Scientific Research and Experimental Development (SR&ED) expenditures in Canada. As noted below, various internal and external factors may have favourable or unfavourable effects on future provisions for income taxes and the Company's effective income tax rate. These factors include, but are not limited to, changes in tax laws, regulations and/or rates, results of audits by tax authorities, changing interpretations of existing tax laws or regulations, changes in estimates of prior years' items, future levels of R&D spending and changes in overall levels of income before taxes. Furthermore, new accounting pronouncements or new interpretation of existing accounting pronouncements could materially adversely impact the Company's effective income tax rate.

The Company and its subsidiaries have operations in various countries that have differing tax laws and rates. The Company's and its subsidiaries' tax reporting is subject to current domestic tax laws in the countries in which the Company and its subsidiaries operate, including transfer pricing laws and regulations between many of these jurisdictions, and the application of tax treaties between the various countries in which the Company and its subsidiaries operate. The Company's and its subsidiaries' income tax reporting is subject to audit by domestic and foreign authorities. Tax laws, regulations, and administrative practices in various jurisdictions may be subject to significant change, with or without notice, due to economic, political, and other conditions.

The amount of income tax and withholding tax required to be paid by the Company and/or its subsidiaries will be affected by many factors, including the amount of net income earned in the relevant operating jurisdictions, the structure of its operations, the availability of benefits under tax treaties, and the rates of taxes payable in respect of that income. The Company must make estimates and judgments, as well as take tax filing positions, based

on its knowledge and understanding of applicable tax laws and tax treaties, and the application of those tax laws and tax treaties to its business. The final outcome of any audits by taxation authorities may differ from the estimates, assumptions and filing positions used in determining the tax treatment by the Company and/or its subsidiaries, and such outcome could lead to additional taxes, penalties and interest.

The Company was subject to withholding taxes on certain of its revenue streams. The withholding tax rates that were used were based on the interpretation of specific tax acts and related treaties. If a tax authority has a different interpretation from the Company's, it could potentially impose additional taxes, penalties or fines. This would potentially reduce the amounts of revenue ultimately received by the Company.

The Company, from time-to-time, has executed multiple reorganization transactions impacting its tax structure. If a tax authority has a different interpretation from the Company's, it could potentially impose additional taxes, penalties or interest.

International Scope of Operations

The Company's international operations and any future international operations may expose it to risks that could negatively impact its future results. The risks that the Company may be exposed to in these cases include, but are not limited to:

- tariffs and trade barriers;
- currency fluctuations, which could decrease the Company's revenues or increase its costs;
- regulations related to customs and import/export matters;
- tax issues, such as tax law changes, variations in tax laws, withholding tax obligations and claims by foreign tax authorities;
- limited access to qualified staff;
- inadequate infrastructure;
- cultural and language differences;
- inadequate banking systems;
- different and/or more stringent environmental laws and regulations;
- restrictions on the repatriation of profits or payment of dividends;
- crime, strikes, riots, civil disturbances, terrorist attacks or wars;
- nationalization or expropriation of property;
- law enforcement authorities and courts that are weak or inexperienced in commercial matters; and
- deterioration of political relations among countries.

Similarly, adverse economic conditions impacting the Company's customers in international countries or uncertainty about global economic conditions could cause purchases of its products to decline, which would adversely affect the Company's revenues and operating results. Any of these factors, or any other international factors, could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Accumulated Deficit

The Company had an accumulated deficit of $179.9 million at December 31, 2018. The Company's inability to remain profitable could depress the market price of its shares and could impair its ability to raise capital, expand its business, expand its product pipeline or continue its operations.

Information Technology Infrastructure

Despite the implementation of security measures, the Company's information systems and those of the Company's contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. Such events could cause interruption to the Company's operations. The Company's business depends on the efficient and uninterrupted operation of computer and communications systems and networks, hardware and software systems and other information technology. If systems were to fail or the Company was unable to successfully expand the capacity of these systems, back up its data or was unable to integrate new technologies into its existing systems, its operations and financial results could suffer.

Security and Cyber Security Breaches

The Company has implemented security protocols and systems with the intent of maintaining the physical and electronic security of its operations and protecting its confidential information and information related to identifiable individuals against unauthorized access. Despite such efforts, the Company may be subject to security breaches, which could result in unauthorized access to its facilities or the information that the Company is trying to protect. Unauthorized physical access to one of the Company's facilities or electronic access to its information systems could result in, among other things, unfavorable publicity, litigation by affected parties, damage to sources of competitive advantage, disruptions to its operations, loss of proprietary information, customer information, financial obligations for damages related to the theft or misuse of such information and costs to remediate such security vulnerabilities, any of which could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Management of Growth

The Company's future growth, if any, may cause a significant strain on management, operational, financial and other resources. The ability to effectively manage growth will require the Company to improve and/or expand its scientific, operational, financial and management information systems and to train, manage and motivate its employees. These demands may require the addition of new management personnel and the development of additional expertise by management. Any increase in resources devoted to research, product and business development without a corresponding increase in scientific,

operational, financial and management information systems could materially adversely impact the Company's performance. The failure of the Company's management team to effectively manage growth could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Risks Related to the Industry in which the Company Operates

Products May Fail to Achieve Market Acceptance

Any products successfully developed, acquired or licensed by the Company may not achieve market acceptance and, as a result, may not generate significant revenues. Market acceptance of the Company's products by physicians or patients will depend on a number of factors, including:

- availability, cost and effectiveness of products when compared to competing products and alternative treatments;
- relative convenience and ease of administration;
- the prevalence and severity of any adverse side effects;
- the acceptance of competing products;
- pricing, which may be subject to regulatory control;
- effectiveness of marketing and distribution partners' sales and marketing strategies; and
- the ability to obtain sufficient third-party insurance coverage or reimbursement.

If any product commercialized by the Company does not provide a treatment regimen that is as beneficial as the current standard of care or otherwise does not provide patient benefits, there is the potential that it will not achieve market acceptance. This may result in a shortfall in revenues and an inability to achieve or maintain profitability.

Laws and Regulations

Pharmaceutical and biotechnology companies have faced lawsuits and investigations pertaining to violations of healthcare "fraud and abuse" laws, such as the federal *False Claims Act*, the federal *Anti-Kickback Statute*, the United States *Foreign Corrupt Practices Act* (the FCPA) and other federal, state, territorial and provincial laws and regulations. The Company also faces increasingly strict data privacy and security laws in the United States, Canada, the E.U. and other countries, the violation of which could result in fines and other sanctions. The United States Department of Health and Human Services Office of Inspector General recommends that pharmaceutical companies have comprehensive compliance programs and disclose certain payments made to healthcare providers or funds spent on the marketing and promotion of drug products. While the Company has developed a corporate compliance program, there can be no assurance it, or its employees or agents, are or will be in compliance with all applicable federal, state, provincial, territorial or foreign regulations and laws. If the Company is in violation of any of these requirements or any such actions are instituted against it, and the Company is not

successful in defending or asserting its rights, those actions could have a significant impact on the Company's business, including the imposition of significant fines, exclusion from federal healthcare programs or other sanctions.

The FCPA, the Canadian *Corruption of Foreign Public Officials Act* (the CFPOA) and similar worldwide anti-bribery laws generally prohibit companies and their intermediaries from making improper payments to officials for the purpose of obtaining or retaining business. Although the Company requires its employees to consult with its legal department prior to making any payment or gift thought to be exempt under applicable law, there is no assurance that such policies or procedures will work effectively all of the time or protect the Company against liability under the FCPA and/or the CFPOA for actions taken by its employees and other intermediaries with respect to the Company's business or any businesses that the Company may acquire. The Company may operate in parts of the world that have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices or may require the Company to interact with doctors and hospitals, some of which may be state controlled, in a manner that is different from the United States and Canada. The Company cannot assure that its internal control policies and procedures will protect it from reckless or criminal acts committed by its employees or agents. Violations of these laws, or allegations of such violations, could disrupt the Company's business and result in criminal or civil penalties or remedial measures, any of which could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

The Company is also subject to various privacy and security regulations. In the U.S., the Company is subject to the *Health Insurance Portability and Accountability Act of 1996*, as amended by the *Health Information Technology for Economic and Clinical Health Act of 2009* (as amended, HIPAA). HIPAA mandates, among other things, the adoption of uniform standards for the electronic exchange of information in common healthcare transactions (e.g., healthcare claims information and plan eligibility, referral certification and authorization, claims status, plan enrollment, coordination of benefits and related information), as well as standards relating to the privacy and security of individually identifiable health information, which require the adoption of administrative, physical and technical safeguards to protect such information. In addition, many states have enacted comparable laws addressing the privacy and security of health information, some of which are more stringent than HIPAA. Failure to comply with these laws can result in the imposition of significant civil and criminal penalties.

Numerous other countries have, or are developing, laws governing the collection, use and transmission of personal information as well. Canada has adopted the *Personal Information Protection and Electronic Documents Act* (PIPEDA) which governs how private sector organizations collect, use and disclose personal information in the course of commercial business and which imposes significant compliance obligations. The E.U. and other jurisdictions have adopted data protection laws and regulations which also impose significant compliance obligations, including the E.U. Data Protection Directive, as implemented into national laws by the E.U. member states, which imposes strict obligations and restrictions on the ability to collect, analyze, and transfer personal data, including health data from clinical trials and adverse event reporting. Data protection authorities from different E.U. member states have interpreted the privacy laws differently, which adds to the complexity of processing personal data in the E.U. and guidance on implementation and compliance practices are often updated or otherwise revised. Any failure to comply with applicable information privacy laws could lead to supervisory authority enforcement actions,

reputational damage and significant penalties adversely impacting Company operating results.

The E.U. General Data Protection Regulation (GDPR), came into effect on May 25, 2018 to expand data protection obligations, including by imposing more stringent conditions for consent from data subjects, strengthening the rights of individuals, including the right to have personal data deleted upon request, continuing to restrict the trans-border flow of such data, requiring mandatory data breach reporting and notification, increasing penalties for non-compliance and increasing the enforcement powers of the national data protection authorities. The GDPR mandate harmonizes E.U. data protection laws and is intended to make it easier for multinational companies operating across the E.U. to comply with their data protection obligations. Therefore, GDPR increases the Company's responsibility and liability in relation to processing personal data internationally. Along with the Company's existing controls, it is in the process of putting in place additional mechanisms to ensure compliance with GDPR. The costs of compliance with these laws and the potential liability associated with the failure to comply with these laws could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Legislative or Regulatory Reform of the Healthcare System

In the United States and certain state and foreign jurisdictions, there have been a number of legislative and regulatory proposals to change the healthcare system in ways that could impact the ability of certain of the Company's products to be sold profitably. The *Patient Protection and Affordable Care Act* (the ACA) may affect the operational results of companies in the pharmaceutical industry, including the Company, and other healthcare-related industries by imposing additional costs and compliance burdens.

The Company is unable to predict the future course of federal or state healthcare legislation. A variety of federal and state agencies are in the process of implementing the ACA, including through the issuance of rules, regulations or guidance that materially affect the Company's business. The risk of the Company being found in violation of these rules and regulations is increased by the fact that many of them have not been fully interpreted by applicable regulatory authorities or the courts, and their provisions are open to a variety of interpretations. In addition, there is substantial uncertainty regarding the future of the ACA as there is continued interest to repeal and/or replace all or certain aspects of such laws. The outcome of such efforts could have a substantial impact on the Company's business. Further changes to healthcare laws or regulatory framework that reduce the Company's revenues or increase its compliance or other costs could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

In addition, pharmaceutical product pricing is subject to enhanced government and public scrutiny and calls for reform. Efforts by government officials or legislators to implement measures to regulate prices or payment for pharmaceutical products could adversely affect the Company's business if implemented.

In Canada, patented drug products are subjected to regulation by the Patented Medicine Prices Review Board (the PMPRB) pursuant to the *Patent Act* (Canada) and the Patented Medicines Regulations. The PMPRB does not approve prices for drug products in advance of their introduction to the market and therefore there may be risk involved in the determination of an allowable price selected by the Company for a patented drug product at

the time of introduction to the market. If the PMPRB does not agree with the pricing assumptions chosen by the Company at any time during the patent life of a product, the price chosen could be challenged by the PMPRB, and if it is determined that the price charged is excessive, the price of the product may be reduced and a fine may be levied against the Company. Drug products that have no valid patents are not subject to the PMPRB's jurisdiction. Aralez Canada currently has three patent protected products in Canada (Blexten, Cambia and Durela) that could be affected by changes to PMPRB regulations. Further changes to PMPRB regulations could materially adversely impact the Company's business (Blexten, Cambia, Durela), financial condition or operating results and could cause the market value of its Common Shares to decline.

Formularies

Third-party payers try to negotiate the pricing of medical services and products to control their costs. Pharmacy benefit managers typically develop formularies to reduce their cost for medications. Due to their lower costs, generic products are often favoured. The breadth of the products covered by formularies varies considerably from one managed care organization to another, and many formularies include alternative and competitive products for treatment of particular medical conditions. Failure to be included on such formularies, failure to achieve favourable formulary status, restrictions on drugs included on formularies such as prior authorizations, step edits or other limitations, or delays in implementing changes to formulary status, may negatively impact the utilization of the Company's products. If the Company's products are not included within an adequate number of formularies or adequate reimbursement levels are not provided, or if those policies increasingly favour generic products, its market share which could materially adversely impact the Company's business, financial condition or operating results.

Competition

The pharmaceutical industry is characterized by evolving technology and intense competition. The Company is engaged in areas of research where developments are expected to continue at a rapid pace. Many companies, including major pharmaceutical and specialized biotechnology companies, are engaged in activities focused on medical conditions that are the same as or similar to those targeted by the Company. The Company's success depends upon maintaining its competitive position and the successful commercialization of its products. Competition from pharmaceutical and biotechnology companies, as well as universities and research institutes, is intense and is expected to increase. Many of these organizations have substantially greater R&D, manufacturing, marketing, financial and managerial experience and resources. If the Company fails to compete successfully in any of these areas, this could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

The intensely competitive environment in which the Company operates requires an ongoing, extensive search for medical and technological innovations and the ability to market products effectively, including the ability to communicate the effectiveness, safety and value of the Company's products for their intended uses to healthcare professionals in private practice, group practices and managed care organizations. There can be no assurance that the Company and its drug development partners will be able to successfully develop medical or technological innovations or that the Company and its licensing partners will be able to effectively market the Company's existing products or any future products.

Additionally, the Company competes to acquire the intellectual property assets that are required to continue to broaden its product portfolio. The Company seeks to acquire rights to new intellectual property through corporate acquisitions, asset acquisitions, licensing and joint venture arrangements. Competitors with greater resources may acquire assets that the Company seeks, and even if the Company is successful, competition may increase the acquisition price of such assets. If the Company fails to compete successfully, its growth may be limited.

Generic Drug Manufacturers and Litigation

Regulatory approval for competing generic drugs can be obtained without investing in the same level of costly and time-consuming clinical trials that the Company has conducted or might conduct in the future. Due to the substantially reduced development costs, generic drug manufacturers are often able to charge much lower prices for their products than the original developer. Where available, generic versions may be required or encouraged in preference to branded version under third-party reimbursement programs or substituted by pharmacies for branded versions by law. The Company faces competition from manufacturers of generic drug versions of some of its products that are commercial, since a number of the Company's patents have expired, or if not yet expired, may be ignored by generic drug manufacturers who choose to launch their products "at risk" of a possible patent infringement lawsuit brought by the Company or its licensing partners. Generic competition may impact the prices at which the Company's products are sold, the royalty rates the Company receives and the volume of product sold which may substantially reduce the Company's overall revenues and market share. Such competition could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

In the U.S., under the *Hatch-Waxman Act*, the FDA can approve an Abbreviated New Drug Application (ANDA) for a generic version of a branded drug or a variation of an existing branded drug, without undertaking the clinical testing necessary to obtain approval to market a new drug. This is referred to as the "ANDA process". In place of such clinical studies, an ANDA applicant usually needs to submit data and information demonstrating that its product has the same active ingredient(s) and is bioequivalent to the branded product, in addition to, for example, any data necessary to establish that any difference in inactive ingredients does not result in different safety or efficacy profiles, as compared to the reference drug. The Hatch-Waxman Act, in addition to providing brand-name drug manufacturers with periods of marketing exclusivity, such as three-year "new clinical investigation" exclusivity, requires an applicant for a drug that relies, at least in part, on the FDA's findings of safety or effectiveness for a branded drug, to notify the sponsor of the branded drug of their application and potential infringement of any patents listed in the FDA Orange Book. Upon receipt of this notice, the sponsor of the branded drug has 45 days to bring a patent infringement suit in federal district court against the applicant seeking approval of a product covered by the patent. If such a suit is commenced and the ANDA was filed after the patent had been listed in the FDA Orange Book, then the FDA is generally prohibited from granting approval of the ANDA or Section 505(b)(2) NDA, a type of NDA that relies on information for which the applicant does not have a right of reference, until the earliest of 30 months from the date the FDA accepted the application for filing (the 30-Month Stay), or the conclusion of patent infringement litigation in the generic's favour or expiration of the patent. If an ANDA was filed before the patent had been listed in the FDA Orange Book, the 30-Month Stay does not apply and it is possible that the ANDA holder may launch its generic product "at risk" of patent infringement proceedings initiated by the innovator drug company. If the litigation is resolved in favour of the applicant or the challenged patent expires during the

30-month stay period, the stay is terminated and the FDA may thereafter approve the application based on the standards for approval of ANDAs and Section 505(b)(2) NDAs. Frequently, the unpredictable nature and significant costs of patent litigation leads the parties to settle out of court. Settlement agreements between branded companies and generic applicants may allow, among other things, a generic product to enter the market prior to the expiration of any or all of the applicable patents covering the branded product, either through the introduction of an authorized generic or by providing a license to the patents in suit.

In the U.S., Pennsaid 2% and Vimovo are protected by multiple patents listed in the FDA Orange Book. The approval or launch of generic versions of Pennsaid 2% or Vimovo in the U.S. market, or timely and expensive litigation costs associated with protecting the patents for these products, could materially adversely impact the Company's future revenue from product sales.

Obtaining Government and Regulatory Approvals

The research, testing, manufacturing, packaging, labeling, approval, storage, selling, marketing and distribution of drug products are subject to extensive regulation in the U.S. by the FDA, in Canada by the TPD and by similar regulatory authorities in the E.U., Japan and elsewhere, and regulations and requirements differ from country-to-country. Despite the time and expense exerted by the Company, failure can occur at any stage in the regulatory approval process.

The process of completing a drug development program and obtaining regulatory approval for a drug can be long and may involve significant delays, despite the Company's best efforts, and can require substantial cash and resources. Even after initial approval has been obtained, further research, including post-marketing studies, may be required to expand indications covered under the product approvals and labelling. Also, regulatory agencies require post-marketing surveillance programs to monitor side effects. Results of post-marketing programs may limit or expand additional marketing of the drug. Moreover, regulations are rigorous, time consuming and costly and the Company cannot predict the extent to which it may be affected by changes in regulatory developments and its ability to meet such regulations. There is also a risk that the Company's products may be withdrawn from the market and the required approvals suspended as a result of non-compliance with regulatory requirements. Furthermore, there can be no assurance that the regulators will not require modification to any submissions, which may result in delays or failure to obtain regulatory approvals. There can also be no assurance that the Company's products will prove to be safe and effective in clinical trials.

In addition to the regulatory approval process, pharmaceutical companies are subject to regulations under local, provincial, state and federal law, including requirements regarding occupational safety, laboratory practices, environmental protection and hazardous substance control and may be subject to other present and future local, provincial, state, federal and foreign regulations, including possible future regulations of the pharmaceutical industry.

Failure to obtain or a delay in obtaining necessary regulatory approvals, the restriction, suspension or revocation of existing approvals or any other failure to comply with regulatory requirements, could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

United States Regulation

The FDA has substantial discretion in the drug approval process. The FDA may delay, limit or deny approval of a drug candidate for many reasons including:

- a drug candidate may not be deemed safe or effective;
- the FDA may find the data from preclinical studies, CMC and clinical trials insufficient;
- the FDA may change its approval policies or adopt new regulations; or
- third-party products may enter the market and change approval requirements.

Even once drug candidates are approved, these approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. The FDA may require further testing and surveillance programs to monitor the pharmaceutical product that has been commercialized. Non-compliance with applicable requirements can result in fines and other judicially imposed sanctions, including product seizures, injunction actions and criminal prosecutions.

The process of receiving FDA approval has become more difficult with the requirement to submit a Risk Evaluation and Mitigation Strategy (REMS) as part of the drug application for certain classes of drugs and some individual drug products. In addition, the FDA may require REMS after approving a covered application, including applications approved before the REMS program was initiated.

The FDA has the authority to regulate the claims the Company's partners make in marketing its prescription drug products to ensure that such claims are true, not misleading, supported by scientific evidence and consistent with the product's approved labelling. Failure to comply with FDA requirements in this regard could result in, among other things, suspensions or withdrawal of approvals, product seizures and injunctions against the manufacture, holding, distribution, marketing and sale of certain of the Company's products, and civil or criminal sanctions.

Canadian Regulation

The TPD may deny issuance of a NOC for an NDS if applicable regulatory criteria are not satisfied or may require additional testing. Product approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. The TPD may require further testing and surveillance programs to monitor a pharmaceutical product which has been commercialized. Non-compliance with applicable requirements can result in fines and other judicially imposed sanctions, including product seizures, injunction actions and criminal prosecutions against the Company.

Additional Regulatory Considerations

There is no assurance that problems will not arise that could delay or prevent the commercialization of the Company's products currently under development or that the TPD, FDA or other foreign regulatory agencies will be satisfied with the information submitted by the Company, including results of clinical trials, to approve the marketing of such products. The Company cannot predict the time required for regulatory approval or the extent of clinical

testing and documentation that is required by regulatory authorities. Any delays in obtaining, or failure to obtain regulatory approvals in Canada, the U.S., the E.U. or other foreign countries, would significantly delay the development of the Company's markets and the receipt of revenues from the sale of its products.

Demand Fluctuations

In general, the Company's marketing partners are required to provide 12 to 24-month rolling forecasts of their demand on a quarterly basis, and are also required to place firm purchase orders based on the near-term portion of those forecasts. If wholesaler or market demand for certain of the Company's products is lower than forecasted, the Company's marketing partners or their wholesaler customers may accumulate excess inventory. If such conditions persist, the Company's marketing partners may sharply reduce subsequent purchase orders for a sustained period of time until such excess inventory is consumed, if ever. Significant and unplanned reductions in the Company's manufacturing orders have occurred in the past and the Company's results of operations were adversely affected. If such reductions occur again in the future, the Company's revenues will be negatively impacted, economies of scale will be lost, and revenues may be insufficient to fully absorb overhead costs, which could result in net losses. Conversely, if the Company's marketing partners promote significantly increased demand, the Company may not be able to manufacture such unplanned increases in a timely manner, especially following prolonged periods of reduced demand. As the Company has no control over these factors, purchase orders could fluctuate significantly from quarter-to-quarter, and the Company's results of operations could fluctuate accordingly.

Natural Disasters or Other Events That Disrupt Business Operations

The Company's manufacturing facility is located in Varennes, Québec, where natural disasters or similar events, like blizzards, fires or explosions or large-scale accidents or power outages, could severely disrupt the Company's operations, and materially adversely impact its business, results of operations, financial condition and prospects. If a disaster, power outage or other event occurred that prevented the Company from using all or a significant portion of this facility, that damaged critical infrastructure or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible for the Company to continue its business for a substantial period of time, which could materially adversely impact the Company's business, financial condition or operating results and could cause the market value of its Common Shares to decline.

Rapid Technological Change

Pharmaceutical technologies are subject to rapid and significant technological change. The Company expects its competitors will develop new technologies and products that may render the Company's products and drug delivery technologies uncompetitive or obsolete. The products and drug delivery technologies of its competitors may be more effective than the products and drug delivery technologies developed by the Company. As a result, the Company's products may become obsolete before it recovers expenses incurred in connection with their development or realizes revenues from any commercialized products, which could materially adversely impact the Company.

Prolonged Development Time

It takes considerable time to develop new prescription or over the counter drug products, to obtain the necessary regulatory approvals permitting sales, to establish appropriate distribution channels and market acceptance and to obtain insurer reimbursement approvals. This time period is generally from five to more than ten years and it exposes the Company to significant risks, including the development of competing products, loss of investor interest, shifting consumer preferences, changes in personnel and new regulatory requirements. During this lengthy period, the Company often incurs significant development-related costs without generating offsetting revenues.

Publications of Negative Study or Clinical Trial Results

The publication of negative results of studies or clinical trials related to the Company's products, or the therapeutic areas in which its products compete, may adversely affect sales, the prescription trends for the products, the reputation of the products and the market value of the Company's Common Shares. From time-to-time, studies or clinical trials on various aspects of pharmaceutical products are conducted by the Company, academics or others, including government agencies. The results of these studies or trials, when published, may have a dramatic effect on the market for the pharmaceutical product that is the subject of the study. In the event of the publication of negative results of studies or clinical trials related to the Company's marketed products or the therapeutic areas in which these products compete, there could be a material adverse impact on the Company's business, financial condition or operating results and the market value of its Common Shares could decline.

Risks Related to the Ownership of Securities of the Company

Volatility of Share Price

Market prices for pharmaceutical related securities, including those of the Company, have been historically volatile and subject to substantial fluctuations. The stock market, from time-to-time, experiences significant price and volume fluctuations unrelated to the operating performance of particular companies. Future announcements concerning the Company or its competitors, including announcements regarding the results of testing, technological innovations, new commercial products, marketing arrangements, government regulations, developments concerning regulatory actions affecting the Company's products and its competitors' products in any jurisdiction, developments concerning proprietary rights, litigation, additions or departures of key personnel, cash flow, public concerns about the safety of the Company's products and economic conditions and political factors in the U.S., E.U., Canada or other jurisdictions may have a significant impact on the market price of the Common Shares. To the extent that other companies within the Company's industry experience declines in their stock price, the share price of the Common Shares may decline as well. In addition, there can be no assurance that the Common Shares will continue to be listed on the TSX.

In addition, when the market price of a company's shares drops significantly, shareholders may institute securities class action lawsuits against the company. A lawsuit against the Company could result in substantial costs and could divert the time and attention of the Company's management and other resources.

Potential Dilution

As a result of the Deerfield Financing, Deerfield now holds the Warrants initially exercisable for 25,555,556 fully paid and non-assessable Common Shares, and the Convertible Notes, initially convertible into 19,444,444 fully paid and non-assessable Common Shares. The Common Shares underlying the Warrants and the Convertible Notes represent approximately 395.14% of the Company's 11,388,282 issued and outstanding Common Shares on a non-diluted basis as of December 31, 2018. If the Warrants and Convertible Notes were to be fully exercised, Deerfield would own approximately 79.8% of the issued and outstanding Common Shares. However, Deerfield does not have the right to convert or exercise such securities if doing so would result in Deerfield and its affiliates and joint actors beneficially owning more than 4.985% of the number of Common Shares (on a non-diluted basis) outstanding immediately after giving effect to such conversion or exercise (the 4.985% Cap). Accordingly, Deerfield is unable to exercise a sufficient number of Warrants or Convertible Notes to materially affect control of the Company.

Deerfield may seek to sell some of their Common Shares upon exercise or conversion of the Warrants and Convertible Notes pursuant to the Registration Rights Agreement. No prediction can be made as to the effect, if any, a future sale of Common Shares by Deerfield will have on the market value of the Common Shares prevailing from time to time. However, the future sale of a substantial number of Common Shares by Deerfield, or the perception that such sale could occur, could adversely affect the market value of the Common Shares.

The potential concentration of the Company's issued and outstanding Common Shares in the hands of one shareholder may discourage an unsolicited bid for the common shares, and this may adversely impact the value and trading price of the Common Shares.

The Company may consider issuing debt or equity securities in the future to fund potential acquisitions or for general corporate purposes. If the Company raises additional funding or completes an acquisition or merger by issuing additional equity securities, such issuance may substantially dilute the interests of shareholders of the Company and reduce the value of their investment. The market price of the Common Shares could decline as a result of issuances of new shares or sales by existing shareholders of Common Shares in the market or the perception that such sales could occur. Sales by shareholders might also make it more difficult for the Company itself to sell equity securities at a time and price that it deems appropriate. If the Company incurs debt, it may increase its leverage relative to its earnings or to its equity capitalization, requiring the Company to pay interest expenses. The Company may not be able to market such issuances on favourable terms, or at all, in which case, the Company may not be able to execute its business plan.

Absence of Dividends

The Company has not paid dividends on its Common Shares and does not anticipate declaring any dividends in the near future. As a result, the return on an investment in the Common Shares will depend upon any future appreciation in value. There is no guarantee that the Common Shares will appreciate in value or even maintain the price at which they were purchased.

Active Trading Market for Common Shares

The Company's Common Shares are listed for trading on the TSX and the OTCQX. There can be no assurance that an active trading market in the Company's Common Shares on the TSX and the OTCQX will be sustained.

Securities Industry Analyst Research Reports

The trading market for the Company's Common Shares is influenced by the research and reports that industry or securities analysts publish about the Company or any of its partners. If covered, a decision by an analyst to cease coverage of the Company or failure to regularly publish reports on the Company, could cause the Company to lose visibility in the financial markets, which in turn could cause the stock price or trading volume to decline. Moreover, if an analyst who covers the Company or any of its partners downgrades its or its partner's stock or if operating results do not meet analysts' expectations, the stock price could decline. Currently, to the Company's knowledge, there is one analyst who publishes research reports about the Company. The Company and its products have also been discussed in analyst research reports published about its partners and competitors.

Quarterly Fluctuations

The Company's quarterly and annual operating results are likely to fluctuate in the future. These fluctuations could cause the market value of the Company's Common Shares to decline. The nature of the Company's business involves variable factors, such as the timing of launch and market acceptance of the Company's products, the timing and costs associated with the research, development and regulatory submissions of the Company's products in development, the costs of maintaining manufacturing facilities operating below capacity and the costs associated with public company and other regulatory compliance. As a result, in some future quarters or years, the Company's clinical, financial or operating results may not meet the expectations of securities analysts and investors which could result in a decline in the price of the Company's Common Shares.

Compliance with Laws and Regulations Affecting Public Companies

Any future changes to the laws and regulations affecting public companies, compliance with existing provisions of Multilateral Instrument 52-109 – *Certification of Disclosure in Issuer's Annual and Interim Filings* of the Canadian Securities Administrators and the other applicable Canadian securities laws, regulations and related rules and policies, may cause the Company to incur increased costs as it evaluates the implications of new rules and implements any new requirements. Delays or a failure to comply with the new laws, rules and regulations could result in enforcement actions, the assessment of penalties or civil suits.

Any new laws and regulations may make it more expensive for the Company to provide indemnities to the Company's officers and directors and may make it more difficult to obtain certain types of insurance, including liability insurance for directors and officers. Accordingly, the Company may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for the Company to attract and retain qualified persons to serve on its Board of Directors or as executive officers. The Company may be required to hire additional personnel and utilize additional outside legal, accounting and advisory services, all of which could cause general and administrative costs to increase

beyond what the Company currently has planned. The Company is continuously evaluating and monitoring developments with respect to these laws, rules and regulations and it cannot predict or estimate the amount of the additional costs it may incur or the timing of such costs.

The Company is required annually to review and report on the effectiveness of its internal control over financial reporting in accordance with Multilateral Instrument 52-109 – *Certification of Disclosure in Issuer's Annual and Interim Filings*. The results of this review are reported in the Company's Annual Report and in its Management's Discussion and Analysis of Results of Operations and Financial Condition. The Company's Chief Executive Officer and Chief Financial Officer are required to report on the effectiveness of the Company's internal control over financial reporting.

Management's review is designed to provide reasonable assurance, not absolute assurance, that all material weaknesses existing within the Company's internal controls are identified. Material weaknesses represent deficiencies existing in the Company's internal controls that may not prevent or detect a misstatement occurring which could have a material adverse effect on the quarterly or annual financial statements of the Company. In addition, management cannot provide assurance that the remedial actions being taken by the Company to address any material weaknesses identified will be successful, nor can management provide assurance that no further material weaknesses will be identified within its internal controls over financial reporting in future years.

If the Company fails to maintain effective internal controls over its financial reporting, there is the possibility of errors or omissions occurring or misrepresentations in the Company's disclosures which could materially adversely impact the Company's business, its financial statements and the market value of the Common Shares .

Public Company Requirements May Strain Resources

As a public company, the Company is subject to the reporting requirements of the *Securities Act* (Ontario), as amended, the regulations and rules thereto, including the national and multilateral instruments adopted as rules, decisions, rulings and orders promulgated under the *Securities Act* (Ontario) and the published policy statements issued by the Ontario Securities Commission (OSC) and the listing requirements of the TSX. The ever-increasing obligations of operating as a public company will require significant expenditures and will place additional demands on management as the Company complies with the reporting requirements of a public company. The Company may need to hire additional accounting, financial and legal staff with appropriate public company experience and technical accounting and regulatory knowledge.

In addition, actions that may be taken by significant stockholders may divert the time and attention of the Company's Board of Directors and management from its business operations. Campaigns by significant investors to effect changes at publicly traded companies have increased in recent years. If a proxy contest were to be pursued by any of the Company's stockholders, it could result in substantial expense to the Company and consume significant attention of management and the Board of Directors. In addition, there can be no assurance that any stockholder will not pursue actions to effect changes in the management and strategic direction of the Company, including through the solicitation of proxies from the Company's stockholders.

DIVIDENDS

Dividends are payable on the Common Shares if and when declared by Nuvo's Board of Directors. The Company has never paid dividends on the Common Shares and does not expect to do so in the near future.

Pursuant to the terms of the Deerfield Facility and the Warrants, during the terms thereof, the Company is prohibited from declaring or paying any dividends or other distribution on the Company's capital stock.

DESCRIPTION OF CAPITAL STRUCTURE

The Company's authorized share capital consists of an unlimited number of Common Shares and an unlimited number of first and second preferred shares, issuable in series, of which 11,388,282 Common Shares and no preferred shares were outstanding as of December 31, 2018.

The following is a description of the material characteristics of the Company's Common Shares and preferred shares including descriptions of other instruments that are convertible or exercisable into Common Shares.

Common Shares

The holders of Common Shares are entitled to receive notice of any meeting of the Company's shareholders and to attend and vote thereat, excepting those meetings at which only those holding another class of shares or a particular series are entitled to vote. Each Common Shares entitles its holder to one vote. Subject to the rights of those holding preferred shares, the holders of Common Shares are entitled to receive on a *pro rata* basis such dividends as the Board of Directors of the Company may declare out of funds legally available. In the event of the dissolution, liquidation, winding-up or other distribution of the Company's assets, such holders are entitled to receive on a *pro rata* basis, all the Company's remaining assets after payment of all liabilities, subject to the rights of the holders of the preferred shares. The Common Shares carry no pre-emptive or conversion rights. The preceding was a summary of the principal characteristics of the Common Shares. A full description of the Common Shares can be found in the Company's Restated Articles of Incorporation dated March 1, 2016. The Restated Articles of Incorporation are available on SEDAR at www.sedar.com.

Preferred Shares

Under the Company's Restated Articles of Incorporation, preferred shares may be issued in one or more series, the number, designation, rights, privileges, restrictions and conditions of which are to be determined by the Board of Directors. The preferred shares are entitled to priority over the Common Shares with respect to the payment of dividends and distributions in the event of the dissolution, liquidation or winding-up of the Company. Except as required by law, the holders of first preferred shares as a class, and holders of second preferred shares as a class, are not entitled to receive notice of, attend or vote at any meeting of the Company's shareholders. Pursuant to the Deerfield Facility Agreement, the Company is not permitted to issue preferred shares.

The preceding was a summary of the principal characteristics of the preferred shares. A full description of the preferred shares can be found in the Company's Restated

Articles of Incorporation dated March 1, 2016. The Restated Articles of Incorporation are available on SEDAR at www.sedar.com.

Securities Convertible or Exercisable into Common Shares

Warrants

The Warrants are exercisable into Common Shares commencing on the date that Shareholder approval was obtained for the underlying issuance of Common Shares, being March 11, 2019. Prior to the exercise of the Warrants into Common Shares, the holder is not entitled to any rights as a Shareholder including with respect to voting, participation or comparable rights. If, as and when exercised, the Common Shares issued to such holder will entitle such holder to one vote per Common Share. Upon any exercise of the Warrants, the Company will deliver Common Shares on the basis of one Warrant for one Common Share.

Any holder of the Warrants shall be obligated to exercise the Warrants through cash payment of the exercise price. The exercise price of the Warrants is CAD$3.53.

The Warrants are subject to the 4.985% Cap. That is, any holder of the Warrants will not have the right to exercise the Warrants if doing so would result in such holder and its affiliates and joint actors beneficially owning more than 4.985% of the number of Common Shares (on a non-diluted basis) outstanding immediately after giving effect to such exercise.

Following a Major Transaction (as defined in the Warrants), subject to certain conditions, the Warrants will become exercisable for an additional number of Common Shares determined in accordance with the terms of the Warrants, subject to continued application of the 4.985% Cap, except that in the case of certain Major Transactions involving the conversion of the Common Shares into the right to receive cash, securities or other assets (either under the Major Transaction or a subsequent liquidation of the Company), a holder of Warrants is permitted to exercise the Warrants (without the application of the 4.985% Cap) for the additional number of Common Shares described above immediately prior to and conditional upon completion of the Major Transaction, such that the holder ultimately receives the cash, securities or other assets, as applicable, in exchange for such Common Shares on the same terms as other holders of Common Shares.

If the Company shall at any time effect any subdivision of outstanding Common Shares (by any share split, share dividend, recapitalization or otherwise), combination of outstanding Common Shares (by consolidation, combination, reverse share split or otherwise), reclassification or other similar transaction of such character that Common Shares shall be changed into or become exchangeable for a larger or smaller number of shares (a Stock Event), then upon the effective date thereof, the aggregate number of Common Shares which the holder is entitled to purchase upon exercise of the Warrants shall be increased or decreased, as the case may be, in direct proportion to the increase or decrease in the number of Common Shares by reason of such Stock Event, and the exercise price shall be, in the case of an increase in the number of shares, proportionally decreased and, in the case of decrease in the number of shares, proportionally increased.

The Warrants are not transferrable to a person or entity engaged directly in the operation of a healthcare or pharmaceutical business without the consent of the Company.

Convertible Notes

The Convertible Notes are convertible into Common Shares commencing the date that Shareholder approval was obtained for the underlying issuance of Common Shares, being March 11, 2019. Prior to the conversion of the Convertible Notes into Common Shares, the holder is not entitled to any rights as a shareholder including with respect to voting, participation or comparable rights. If, as and when converted, the Common Shares issued to such holder will entitle such holder to one vote per common share.

The term of the Convertible Notes is six years, with 3.5% interest per annum, payable quarterly in arrears. Upon the expiration of the term, any outstanding Convertible Notes shall be repaid by the Company in cash to the holder thereof. The Convertible Notes shall convert into Common Shares at the conversion price of US$2.70 per share.

The Convertible Notes are subject to the 4.985% Cap. That is, any holder of the Convertible Notes will not have the right to convert the Convertible Notes if doing so would result in such holder and its affiliates and joint actors beneficially owning more than 4.985% of the number of Common Shares (on a non-diluted basis) outstanding immediately after giving effect to such conversion.

Following a Major Transaction (as defined in the Convertible Notes), subject to certain conditions, the Convertible Notes will become convertible into (i) the number of Common Shares into which they were convertible prior to the Major Transaction, and (ii) an additional number of Common Shares, based on a calculation set forth in the Convertible Notes, subject to continued application of the 4.985% Cap following the Major Transaction, except that in the case of certain Major Transactions involving the conversion of the Common Shares into the right to receive cash, securities or other assets (either under the Major Transaction or a subsequent liquidation of the Company), a holder of Convertible Notes is permitted to convert Convertible Notes (without the application of the 4.985% Cap) into the additional number of Common Shares described above immediately prior to and conditional upon completion of the Major Transaction, such that the holder ultimately receives the cash, securities or other assets, as applicable, in exchange for such Common Shares on the same terms as other holders of Common Shares.

If the Company shall at any time effect any Stock Event, then upon the effective date thereof, or, if applicable, the record date therefor, the conversion price in effect on such date shall be adjusted in direct proportion to the adjustment to the number of Common Shares resulting from such Stock Event, such that in the case of an increase in the number of Common Shares, the conversion price shall be proportionally decreased, and in the case of an increase in the number of Common Shares, the conversion price shall be proportionally decreased.

The Convertible Notes are not transferrable to a person or entity engaged directly in the operation of a healthcare or pharmaceutical business without the consent of the Company.

The preceding was a summary of the principal characteristics of the Warrants and Convertible Notes. The forms of the Warrants and Convertible Notes are available on SEDAR at www.sedar.com.

MARKET FOR SECURITIES

The Common Shares are listed and posted for trading on the TSX under the symbol "NRI". The Common Shares are also traded in the U.S. on the OTCQX as "NRIFF" and on the Unofficial Regulated Markets of many German stock exchanges including the Frankfurt Stock Exchange, the Berlin Stock Exchange, the Munich Stock Exchange and the XETRA electronic trading system of the Deutsche Börse.

The following table provides information on the monthly price range and trading volume for the Common Shares on the TSX during the year ended December 31, 2018:

Month	High	Low	Volume
	$	$	(000s)
January 2018	3.95	3.54	262
February 2018	3.69	3.25	154
March 2018	3.91	3.25	150
April 2018	3.45	3.04	293
May 2018	3.20	2.77	172
June 2018	2.81	2.60	275
July 2018	2.99	2.60	251
August 2018	3.67	2.71	258
September 2018	2.81	2.55	148
October 2018	2.92	2.65	128
November 2018	2.83	2.52	75
December 2018	2.70	1.88	109

As part of the Deerfield Financing, the Company's subsidiary, Nuvo Ireland, issued certain loan notes to Deerfield in relation to the Amortization Loan in the aggregate amount of US$60 million, which loan notes were admitted to listing on a recognized stock exchange in March 2019 pursuant to the Deerfield Facility Agreement. The Company has guaranteed the loan notes and each of the loan notes will be a quoted "Eurobond" within the meaning of Section 64(1) of the *Tax Consolidation Act 1997* (Ireland). See "General Development of the Business – Recent Financings – The Deerfield Financing".

PRIOR SALES

The following table sets forth for each class of securities of the Corporation that is outstanding, but not listed or quoted on a marketplace, the price at which securities of the class have been issued during the period from January 1, 2018 to December 31, 2018 and the number of securities of the class issued at that price and the date on which the securities were issued.

Date of Issue	Grant Number and Designation of Securities	Issue/Exercise Price ($)
March 28, 2018	195,000 stock options	3.55
October 3, 2018	8,500 stock options	2.88
December 31, 2018	25,555,556 Warrants	3.53
December 31, 2018	Convertible Notes (convertible into 19,444,444 common shares)	USD 2.70

DIRECTORS AND OFFICERS

The following table sets forth the name, municipality of residence, position with the Company and principal occupation of each director and executive officer of the Company. Directors of the Company hold office until the next annual Shareholders' meeting or until successors are duly elected or appointed.

Name and Residence	Principal Occupation	Director Since	Number of Common Shares Beneficially Owned
Robert Harris[(1)] Ontario, Canada	Executive Chairman of Nuvo	May 11, 2017	-
John C. London[(2)(6)] Ontario, Canada	Vice Chairman of Nuvo	September 21, 2004	155,786
Daniel N. Chicoine[(3)(5)] Ontario, Canada	Executive Chairman, Crescita Therapeutics Inc.	September 21, 2004	235,784
David A. Copeland [(8)(9)] Ontario, Canada	Private Business Investor	September 21, 2004	57,692
Anthony E. Dobranowski[(5)(7)] Ontario, Canada	Private Business Investor	September 21, 2004	47,085
Dr. Jacques Messier[(4)(7)] Ontario, Canada	Chief Executive Officer, The Toronto Humane Society	September 21, 2004	34,523
Jesse F. Ledger[(10)] Ontario, Canada	President & Chief Executive Officer of Nuvo	N/A	14,886
Mary-Jane E. Burkett[(11)] Ontario, Canada	Vice President & Chief Financial Officer of Nuvo	N/A	10,390
Katina K. Loucaides Ontario, Canada	Vice President, Secretary and General Counsel of Nuvo	N/A	23,126

(1) Robert Harris was appointed Executive Chairman January 1, 2019.
(2) John London was appointed Vice Chairman January 1, 2019. He had previously held the positions of Executive Chairman and Chief Executive Officer.
(3) Daniel N. Chicoine is the Executive Chairman of Crescita Therapeutics Inc. The principal business of Crescita Therapeutics Inc. is a portfolio of dermatology prescription and non-prescription products.
(4) Dr. Jacques Messier is the Chief Executive Officer of the Toronto Humane Society. The principal business of the Toronto Humane Society is the promotion of the humane care and protection of all animals through best-in-class animal shelters.
(5) Member of the Audit Committee.
(6) Member of the Compensation, Corporate Governance & Nominating Committee.
(7) Chairman of the Compensation, Corporate Governance & Nominating Committee.
(8) Chairman of the Audit Committee.
(9) Lead Director.
(10) Jesse Ledger was appointed President & Chief Executive Officer in November 2017. He had previously held the position of President and joined Nuvo in April 2016 in the role of Vice President, Business Development.
(11) Mary-Jane Burkett joined Nuvo in December 2012 and was appointed Vice President & Chief Financial Officer in September 2016.

Each of the directors and executive officers of the Company has been engaged for more than five years in his or her present principal occupation or in other capacities with the corporation or organization (or predecessor thereof) in which he or she currently holds his or her principal occupation, with the exception of the following: Mr. Ledger was the Vice President, Business Development & International Business of Tribute Pharmaceuticals prior to joining Nuvo in April 2016. Mr. Harris was the President & Chief Executive Officer of Tribute Pharmaceuticals until he retired in 2016.

As at December 31, 2018, the directors and executive officers of Nuvo, as a group, beneficially owned, directly or indirectly, or exercised control or direction of 579,272 Common Shares, or 1% of the Company's Common Shares assuming all potentially dilutive instruments were exercised or converted.

Individual Bankruptcies

None of the Company's existing directors or executive officers, and to the best of the Company's knowledge, no Shareholder holding a sufficient number of securities to affect materially the control of the Company, has, within the ten years prior to the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of that individual.

Corporate Cease Trade Orders and Bankruptcies

Except as disclosed below, none of the Company's existing directors or executive officers, and to the best of the Company's knowledge, no Shareholder holding a sufficient number of securities to affect materially the control of the Company is, as at the date of this AIF, or has been within the ten years before the date of this AIF, (i) a director, chief executive officer or chief financial officer of any company that was subject to an order that was issued while the existing director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer, or (ii) was subject to an order that was issued after the existing director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer, or (iii) a director or executive officer of any company that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets. For the purposes of this paragraph, "order" means a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation, in each case, that was in effect for a period of more than 30 consecutive days.

John London and David Copeland were directors of MTB Industries Inc. (MTB) until May 1, 2009 when they both resigned. MTB filed for court appointed receivership on May 5, 2009.

Rob Harris was a director of Aralez until his resignation in August 2018. Aralez commenced voluntary proceedings under the CCAA in Canada and Chapter 11 in the U.S. in August 2018.

Penalties or Sanctions

None of the Company's directors or executive offices, and to the best of the Company's knowledge, no shareholder holding a sufficient number of securities to affect materially the control of the Company, has been subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority or has been subject to any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor making an investment decision.

Conflicts of Interest

Certain directors and officers of Nuvo or its subsidiaries are, and may continue to be, directors, officers or shareholders of other companies whose operations may, from time-to-time, be in direct competition with those of Nuvo or with entities which may, from time-to-time, provide financing to, or make equity investments in competitors of Nuvo. In accordance with the *Business Corporations Act* (Ontario), such directors and officers will be required to disclose all conflicts of interest as such conflicts arise. If a conflict of interest arises at a meeting of the Board of Directors, any director in a conflict will disclose his or her interest and abstain from voting on such matter.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

The Company, or the intellectual property in respect of certain of its products, has been involved in the following legal proceedings during the last financial year, all in the normal course of business and relating to patent claims. While it is not possible to determine the outcome of these matters, in the event of an adverse outcome or outcomes, the Company's business could be materially harmed.

Pennsaid 2%

All of the intellectual property for Pennsaid 2% for the U.S. is currently owned by Horizon and all of the patent litigation related to Pennsaid 2% is being managed and controlled by Horizon. Nuvo has no input or decision making authority for these matters.

From December 2014 to September 2015 Horizon filed four separate lawsuits against Actavis Laboratories UT, Inc., formerly known as Watson Laboratories, Inc., Actavis, Inc. and Actavis plc (collectively Actavis) in the United States District Court for the District of New Jersey (the District Court). The lawsuits alleged that Actavis has infringed a number of Horizon's patents covering Pennsaid 2% by filing an ANDA seeking approval from the FDA to market a generic version of Pennsaid 2% prior to expiry of certain of Horizon's patents listed in FDA's Orange Book. These four suits were consolidated into a single lawsuit. In October 2015, Horizon filed an additional two lawsuits against Actavis in District Court.

In August 2016, the District Court issued a Markman opinion holding certain of the asserted claims of seven of the Company's patents covering Pennsaid 2% invalid as indefinite and in March 2017, the District Court granted Actavis' motion for summary judgment of non-infringement of the asserted claims of three of the Horizon's patents covering Pennsaid 2%. A bench trial was held in March 2017, regarding a claim of one of Horizon's patents covering Pennsaid 2% and on May 14, 2017, the District Court issued its opinion upholding the validity of claim of the patent, which Actavis had previously admitted

its proposed generic diclofenac sodium topical solution product would infringe. Actavis has appealed this decision. In addition, Horizon has appealed the District Court's rulings related to certain claims of Horizon's patents covering Pennsaid 2%. The parties are awaiting the decision of the Federal Circuit Court of Appeals.

In August 2016, Horizon filed an additional lawsuit in the District Court against Actavis for patent infringement of four of the Company's newly issued patents covering Pennsaid 2%, which are listed in the Orange Book. This litigation is currently stayed by agreement of the parties.

In April 2015, Horizon filed a lawsuit in the District Court against Lupin Ltd. (Lupin), seeking an injunction to prevent the approval of the ANDA, and engaged in ANDA litigation against Lupin in multiple venues. On May 30, 2018, Horizon finalized settlement of the cases against Lupin and the cases were dismissed. Under the settlement agreement with Lupin, the license entry date is October 17, 2027; however, Lupin may be able to enter the market earlier in certain circumstances.

Pennsaid 2% is protected by multiple patents listed in the FDA Orange Book. The approval or launch of generic versions of Pennsaid 2% in the U.S. market, or timely and expensive litigation costs associated with protecting the patents for these products, could materially adversely impact the Company's future revenue from product sales.

Vimovo

Pursuant to the Aralez Transaction, on December 31, 2018, Nuvo Ireland acquired the worldwide rights and royalties from licensees for Vimovo from POZEN. See "General Development of the Business – Significant Acquisitions – The Aralez Transaction".

In the United States, Horizon has control over and is responsible for the patent litigation related to Vimovo pursuant to the amended and restated collaboration and license agreement between the parties. Currently, patent litigation is pending in the District Court and the Court of Appeals for the Federal Circuit against three generic companies intending to market Vimovo prior to the expiration of certain of the Vimovo patents listed in the FDA Orange Book, and involve the following sets of defendants: (i) Dr. Reddy's Laboratories Inc. and Dr. Reddy's Laboratories Ltd. (collectively, Dr. Reddy's); (ii) Lupin; and (iii) Mylan Pharmaceuticals Inc., Mylan Laboratories Limited, and Mylan Inc. (collectively, Mylan).

Patent litigation in the District Court against a fourth generic company, Teva Pharmaceuticals Industries Limited (formerly known as Actavis Laboratories FL, Inc., which itself was formerly known as Watson Laboratories, Inc. – Florida) and Actavis Pharma, Inc. (collectively, Actavis Pharma), was dismissed on January 10, 2017, and the parties have concluded a settlement agreement. Under this settlement agreement with Actavis Pharma, the license entry date is January 1, 2025; however, Actavis Pharma may be able to enter the market earlier in certain circumstances.

The District Court consolidated all of the cases pending against Dr. Reddy's, Lupin, Mylan and Actavis Pharma into two separate cases for purposes of discovery. The District Court entered final judgment for one of the consolidated cases on July 21, 2017, and both sides have appealed the District Court's judgment to the Court of Appeals for the Federal Circuit. A hearing before the Court of Appeals for the Federal Circuit is scheduled in April 2019. On November 19, 2018, the District Court granted Dr. Reddy's and Mylan a summary judgment ruling that U.S Patent Numbers 9,220,698 and 9,393,208 are invalid, and on

January 21, 2019, it entered final judgment against the ‘698, ‘208, and U.S. Patent Number 8,945,621. This decision has been appealed. Proceedings on all remaining patents are currently stayed.

On August 24, 2017, Mylan filed a Petition for Inter Parties Review (IPR) of one of the Vimovo’s patents. A Preliminary Patent Owner Response was filed on December 12, 2017. On March 8, 2018, the Patent Trial and Appeals Board (the PTAB) instituted Mylan’s Petition for IPR. On March 22, 2018, a Request for Rehearing of the decision to institute IPR was filed, which was denied by the PTAB on May 25, 2018. On April 6, 2018, Dr. Reddy’s filed a Petition for IPR of the same patent challenged by Mylan and a motion for joinder with Mylan’s IPR. An opposition to Dr. Reddy’s motion for joinder was filed on May 9, 2018. The parties are awaiting the PTAB’s decision regarding Dr. Reddy’s Petition.

On December 4, 2017, Mylan filed a Petition for IPR of another of the Vimovo patents. The PTAB instituted an IPR proceeding on Mylan’s Petition on June 14, 2018.

The current active cases referred to above involving the Vimovo patents are disclosed below, along with active petitions seeking PTAB review.

Name	Number	District	Filed
Horizon Pharma, Inc. v. Dr. Reddy's Laboratories Inc.	19-1607	CAFC	February 28, 2019
Horizon Pharma, Inc. v. Lupin Ltd.	19-1609	CAFC	February 28, 2019
Horizon Pharma, Inc. v. Mylan Pharmaceuticals Inc.	19-1610	CAFC	February 28, 2019
Horizon Pharma, Inc. v. Dr. Reddy's Laboratories Inc.	19-1611	CAFC	February 28, 2019
Horizon Pharma, Inc. v. Lupin Ltd.	19-1612	CAFC	February 28, 2019
Horizon Pharma, Inc. v. Mylan Pharmaceuticals Inc.	19-1613	CAFC	February 28, 2019
Horizon Pharma, Inc. v. Dr. Reddy's Laboratories Inc.	19-1614	CAFC	February 28, 2019
Dr. Reddy’s Laboratories, Inc. et al v. POZEN Inc. et al	IPR2018-00894	PTAB	April 6, 2018
Mylan Pharmaceuticals Inc. et al v. POZEN Inc. et al	IPR2018-00272	PTAB	December 4, 2017
POZEN Inc. v. Dr. Reddy’s Laboratories Inc.	17-2473	CAFC	August 25, 2017
POZEN Inc. v. Dr. Reddy’s Laboratories, Inc.	17-2481	CAFC	August 25, 2017
POZEN Inc. v. Dr. Reddy’s Laboratories Inc.	17-2484	CAFC	August 25, 2017
POZEN Inc. v. Mylan Pharmaceuticals Inc.	17-2486	CAFC	August 25, 2017
POZEN Inc. v. Dr. Reddy’s Laboratories Inc.	17-2487	CAFC	August 25, 2017

POZEN Inc. v. Lupin Ltd.	17-2488	CAFC	August 25, 2017
POZEN Inc. v. Dr. Reddy's Laboratories Inc.	17-2489	CAFC	August 25, 2017
POZEN Inc. v. Dr. Reddy's Laboratories Inc.	17-2491	CAFC	August 25, 2017
POZEN Inc. v. Dr. Reddy's Laboratories Inc.	17-2492	CAFC	August 25, 2017
POZEN Inc. v. Dr. Reddy's Laboratories Inc.	17-2493	CAFC	August 25, 2017
Mylan Pharmaceuticals Inc. et al v. POZEN Inc. et al	IPR2017-01995	PTAB	August 24, 2017
Horizon Pharma, Inc. et al v. Dr. Reddy's Laboratories, Inc. et al	2-16-cv-09035	NJD	December 6, 2016
Horizon Pharma, Inc. et al v. Dr. Reddy's Laboratories, Inc. et al	2-16-cv-04918	NJD	August 11, 2016
Horizon Pharma, Inc. et al v. Lupin Limited. et al	2-16-cv-04920	NJD	August 11, 2016
Horizon Pharma, Inc. et al v. Mylan Pharmaceuticals Inc. et al	2-16-cv-04921	NJD	August 11, 2016
Horizon Pharma, Inc. et al v. Dr. Reddy's Laboratories, Inc. et al	2-15-cv-03324	NJD	May 13, 2015
Horizon Pharma, Inc. et al v. Lupin Limited et al	2-15-cv-03326	NJD	May 13, 2015
Horizon Pharma, Inc. et al v. Mylan Pharmaceuticals, Inc. et al	2-15-cv-03327	NJD	May 13, 2015
Dr. Reddy's Laboratories, Inc. et al v. POZEN Inc. et al.	IPR2018-01341	IPR	July 2, 2018

Vimovo is protected by multiple patents listed in the FDA Orange Book. While Horizon is responsible for this litigation, including the costs of same, the Company nevertheless will have to incur additional expenses in connection with the lawsuits relating to Vimovo, which may be substantial and could materially adversely impact the Company's future revenue from product sales. Moreover, responding to and defending pending litigation results in a significant diversion of management's attention and resources and an increase in professional fees.

INTERESTS OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Other than as set out below and elsewhere in this AIF, none of the following persons has any material interest, direct or indirect, in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or will materially affect the Company:

(a) a director or executive officer of the Company;

(b) a person or company that is the direct or indirect beneficial owner of, or who exercises control or direction over, more than 10% of any class or series of the Company's outstanding voting securities; and

(c) an associate or affiliate of any of the persons or companies referred to in paragraphs (a) or (b).

TRANSFER AGENT

The transfer agent and registrar for the Common Shares is AST Trust Company at its office in Toronto, Ontario, Canada.

AUDIT COMMITTEE

Charter of the Audit Committee

The Audit Committee of the Company's Board of Directors has developed its Charter, the text of which is set forth in Appendix I to this AIF.

Composition of the Audit Committee

The Audit Committee is comprised of three members: David A. Copeland, Anthony E. Dobranowski and Daniel N. Chicoine. Each member is independent and financially literate as defined in Multilateral Instrument 52-110 - *Audit Committees*.

Relevant Education and Experience of Audit Committee Members

In addition to each member's general business experience, the education and experience relevant to the performance of Audit Committee responsibilities are set forth below.

David A Copeland

Mr. Copeland has been Nuvo's Lead Director and member of the Audit Committee since 2004. He was the Chair of Nuvo's Audit Committee until February 2016 and assumed this role again in May 2017. He is also a member of the Transaction Committee. Mr. Copeland was the former President and Chief Operating Officer of Triam Automotive Inc., an automobile parts supplier. From 1984 to 1992, Mr. Copeland held a number of senior management positions at Magna International Inc. (Magna), a global automotive parts supplier, including Chief Financial Officer and Chief Executive Officer of the Cosma Group of Magna. Mr. Copeland has been an advisor, investor and director in a number of private early stage companies since 1998. His background includes a focus on business valuation and mergers and acquisitions (M&A). Since March 2016, Mr. Copeland has been a director and a member of the Audit Committee and the Compensation, Corporate Governance & Nominating Committee of Crescita Therapeutics Inc. (Crescita). Mr. Copeland is a Chartered Professional Accountant and a Chartered Accountant and holds a Bachelor of Mathematics degree from the University of Waterloo.

Anthony E. Dobranowski

Mr. Dobranowski has been a Nuvo director and member of the Audit Committee and the Compensation, Corporate Governance & Nominating Committee since 2004. He assumed the role of Chair of the Compensation, Corporate Governance & Nominating Committee in 2018. Mr. Dobranowski retired from Magna in 2007. During his employment with Magna, Mr. Dobranowski was most recently a Vice President, and prior to that held various executive positions (Vice Chairman, President and Chief Financial Officer) at Tesma

International Inc. (Tesma), a publicly traded Magna subsidiary. He was instrumental in the initial public offering of Tesma in 1995, and was involved in all aspects of Tesma's growth, with particular emphasis on financing, investor relations and M&A activity. Previous to that, Mr. Dobranowski held various senior management positions with other Magna companies. Since March 2016, Mr. Dobranowski has been the Lead Director, the Chair of the Corporate Governance, Compensation & Nominating Committee and a member of the Audit Committee of Crescita. Mr. Dobranowski is a Chartered Professional Accountant and a Chartered Accountant and holds Bachelor of Science and Masters of Business Administration degrees from the University of Toronto.

Daniel N. Chicoine

Mr. Chicoine has been a Nuvo Director since March 2016 and has been a member of the Audit Committee since March 1, 2019. Previously, Mr. Chicoine served as Nuvo's Chairman and Co-CEO and was actively involved in its day-to-day operations since 2004. In March 2016, Mr. Chicoine was appointed the Chairman & Chief Executive Officer of Crescita. Since April 2018, he has served as Crescita's Executive Chairman. From 2001 to 2004, Mr. Chicoine served as the Chief Financial Officer at Cosma International, Magna's body and chassis systems group. Mr. Chicoine served as the President of PowerCart Systems Inc., a Markham-based private company that designs and manufactures battery-equipped workstations that power devices with wireless communication capability. Previously, Mr. Chicoine served as Vice Chairman in charge of sales at Triam Automotive Inc. From 1982 to 1993, Mr. Chicoine held various positions at the Magna group of companies, including President and Chief Executive Officer of Atoma International Inc. Mr. Chicoine is a graduate of the University of Toronto in commerce and is a Chartered Professional Accountant.

Audit Fees

The following table outlines the fees paid or payable to Ernst & Young LLP, the Company's auditors, for the years ended December 31, 2018 and December 31, 2017.

Fees	Year ended December 31, 2018 $	Year ended December 31, 2017 $
Audit Fees [(1)]	532,500	175,000
Audit – Related Fees[(2)]	162,900	131,000
Tax Fees[(3)]	427,300	-
TOTAL	1,122,700	306,000

(1) Audit fees include fees for the quarterly interim reviews and the annual audit. For the year ended December 31, 2018, audit fees also include fees relating to the audit of the purchase price accounting of the Aralez Transaction and the U.S. and ex-U.S. acquisition of the rights to Resultz.
(2) Audit related fees relate to due diligence costs incurred by the Company for the Aralez and Resultz transaction.
(3) Tax fees include fees incurred for tax planning and tax advice for the Company's Canadian and Irish operations.

MATERIAL CONTRACTS

The only material contracts entered into by the Company during the recently completed financial year or prior to the most recently completed financial year (but after January 1, 2002) that are still in effect, other than in the ordinary course of business, are as follows:

- Facility Agreement among Nuvo Pharmaceuticals Inc., Nuvo Pharmaceuticals (Ireland) Designated Activity Company, Deerfield Private Design Fund III, L.P., and Cortland Capital Market Services LLC, dated December 31, 2018. See "General Development of the Business – Recent Financings – The Deerfield Financing".

- License Agreement between Aralez Pharmaceuticals Canada Inc. and Assertio Therapeutics, Inc. dated November 9, 2010, as amended by Amendment No. 1 dated August 11, 2011, as amended by Amendment No. 2 dated September 30, 2012 and as amended by Amendment No. 3 dated February 12, 2019, and Letter Agreement between Assertio Therapeutics, Inc. and Nuvo Pharmaceuticals Inc. dated November 16, 2018. See "General Development of the Business – Products Commercialized by Nuvo – Cambia".

- Bilastine License and Supply Agreement between Aralez Pharmaceuticals Canada Inc. and Faes Farma, S.A. dated May 13, 2014, as amended on April 17, 2018 and January 18, 2019, and Letter Agreement among Faes Farma, S.A., Aralez Pharmaceuticals Inc. and Nuvo Pharmaceuticals Inc. dated October 29, 2018. See "General Development of the Business – Products Commercialized by Nuvo – Blexten".

- Share Purchase Agreement among Nuvo Pharmaceuticals Inc., Aralez Pharmaceuticals Inc., and Aralez Pharmaceuticals Canada Inc. dated September 18, 2018. See "General Development of the Business – Significant Acquisitions – The Aralez Transaction".

- Asset Purchase Agreement among Nuvo Pharmaceuticals (Ireland) Designated Activity Company, POZEN Inc. and Aralez Pharmaceuticals Trading DAC dated September 18, 2018. See "General Development of the Business – The Aralez Transaction".

- Amended and Restated Collaboration and License Agreement for the United States between Nuvo Pharmaceuticals (Ireland) Designated Activity Company and Horizon Pharma USA, Inc. dated November 18, 2013, as amended pursuant to Amendment No. 1 dated November 18, 2013 and Amendment No.2 dated February 22, 2018, and Three Party Letter Agreement dated November 18, 2013. See "General Development of the Business – Products Out-Licensed or Manufactured by Nuvo – Vimovo".

- Amended and Restated Collaboration and License Agreement for Rest of World, between Nuvo Pharmaceuticals (Ireland) Designated Activity Company and AstraZeneca AB dated as of November 18, 2013, and as assigned to Grünenthal GmbH on December 3, 2018, and Three Party Letter Agreement dated November 18, 2013. See "General Development of the Business – Products Out-Licensed or Manufactured by Nuvo – Vimovo".

- Asset Transfer Agreement between Nuvo Pharmaceuticals Inc. and Nuvo Pharmaceuticals (Ireland) DAC dated January 11, 2018. See "General Development of the Business – Significant Acquisitions – Resultz ex-U.S. Asset Purchase".

- The U.S. Asset Purchase Agreement between Nuvo Pharmaceuticals (Ireland) DAC and Piedmont Pharmaceuticals LLC dated January 12, 2018. See "General

Development of the Business – Significant Acquisitions – Resultz U.S. Asset Purchase".

- The Supply Agreement between the Company and Horizon Pharma Ireland Limited dated October 17, 2014, as amended by Amendment No. 1 to Supply Agreement, dated as of February 4, 2016, Amendment No. 2 to Supply Agreement, dated as of January 1, 2017, and Amendment No. 3 to Supply Agreement, dated as of February 12, 2018.

EXPERTS

The Company's auditor is Ernst & Young LLP, Chartered Professional Accountants, Licensed Public Accountants, 100 Adelaide Street West, Toronto, Ontario M5H 0B3. Ernst & Young LLP has confirmed that it is independent with respect to the Company within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of Ontario (registered name of The Institute of Chartered Accountant of Ontario). To the knowledge of the Company, Ernst & Young LLP does not own any registered or beneficial interest, directly or indirectly, in any securities or other property of the Company.

Ernst & Young LLP provides tax, financial advisory and other non-audit services to the Company and its subsidiaries. The Company's Audit Committee has concluded that the provision of these non-audit services by Ernst & Young LLP is compatible with Ernst & Young LLP maintaining its independence.

ADDITIONAL INFORMATION

Additional information regarding the Company can be found at www.sedar.com. Additional information on Nuvo, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, options to purchase securities and interests of insiders in material transactions is contained in the Company's Management Information Circular for its most recent annual meeting of Shareholders involving the election of directors. Additional financial information is provided in the Company's Consolidated Financial Statements and Notes to the Consolidated Financial Statements and Management's Discussion and Analysis for the year ended December 31, 2018.

Copies of the Company's Report to Shareholders, including its Consolidated Financial Statements and Notes to the Consolidated Financial Statements and Management's Discussion and Analysis for the year ended December 31, 2018, and this AIF may be obtained upon request from the Company's Investor Relations Department or on the Company's website: www.nuvopharmaceuticals.com.

GLOSSARY OF TERMS

Abbreviated New Drug Application	An Abbreviated New Drug Application (ANDA) contains data that, when submitted to the FDA provides for the review and ultimate approval of a generic drug product. Generic drug applications are called “abbreviated” because they are generally not required to include preclinical (animal) and clinical (human) data to establish safety and effectiveness. Instead, a generic applicant must scientifically demonstrate that its product is bioequivalent (i.e. performs in the same manner as the innovator drug).
Active Pharmaceutical Ingredient	An Active Pharmaceutical Ingredient (API) is any substance or mixture of substances intended to be used in the manufacture of a drug product. Such substances are intended to furnish pharmacological activity or other direct effect in the diagnosis, cure, mitigation, treatment or prevention of disease or to affect the structure and function of the body.
Blexten	Blexten is a second generation antihistamine drug for the symptomatic relief of allergic rhinitis and chronic spontaneous urticaria
Cambia	Cambia (diclofenac potassium for oral solution) is an NSAID and is currently the only prescription NSAID approved in Canada for the acute treatment of migraine attacks with or without aura in adults 18 years of age or older.
Companies' Creditors Arrangement Act	Companies' Creditors Arrangement Act (CCAA) has the meaning ascribed thereto in “Significant Acquisitions – Aralez Transaction”.
Chemistry, Manufacturing and Controls	Chemistry, Manufacturing and Controls (CMC) constitutes that part of pharmaceutical development that deals with the nature of the drug substance (API) and drug product, the manner in which both are made, and the manner by which the manufacturing process is shown to be in control. CMC considerations include formulation development, manufacturing process and equipment, container-closure system (packaging), stability evaluation and shelf life (storage condition) and specifications for raw materials/components and the finished drug product.
Clinical Trials	The regulated process by which new drugs proceed after discovery through to acceptance for marketing to patients. The term most correctly refers to the period during which new compounds are tested in human subjects and encompasses the several phases as outlined under “Narrative Description of Business – Regulatory Environment and Drug Development Process”.
Common Shares	Common Shares means the Common Shares in the capital of the Company.
Contract Manufacturing Organization	A Contract Manufacturing Organization (CMO) manufactures products under contract for other companies.

Contract Research Organization	A Contract Research Organization (CRO) is a company that conducts research on behalf of a pharmaceutical or biotechnology company.
Corruption of Foreign Public Officials Act	Corruption of Foreign Public Officials Act (CFPOA) has the meaning ascribed thereto in "Risk Factors – Risk Related to the Industry in which the Company Operates – Laws and Regulations".
Controlled Heat-Assisted Drug Delivery	A Controlled Heat-Assisted Drug Delivery (CHADD) unit contains a heat-generating powder that consists of a proprietary mixture of several non-toxic ingredients which produce heat when exposed to air.
Clinical Trial Application	An application that must be submitted to Health Canada and deemed acceptable prior to the initiation of conducting a clinical trial using a new drug involving human subjects.
Cyclomethicone	Cyclomethicone is a clear, alcohol-free and odorless liquid, added to personal skin care products to give them a smoother texture that is more easily applied to the skin.
Diclofenac sodium	An NSAID that is the API in Pennsaid 2% and Pennsaid.
DMSO	Dimethyl sulfoxide (DMSO) is the molecular penetration enhancer used in Pennsaid 2% and Pennsaid.
Drug Master File	A Drug Master File (DMF) is a submission to the FDA that may be used to provide confidential, detailed information about facilities, processes or articles employed in the manufacturing, processing, packaging, and storing of one or more human drugs. Neither law nor FDA regulations require the submission of a DMF. A DMF is submitted solely at the discretion of the holder. The DMF holder provides the written authorization to the FDA that allows the review of the Master File to support other regulatory applications. The information contained in a DMF may be used to support an Investigational New Drug Application (IND), a New Drug Application (NDA), an Abbreviated New Drug Application, another DMF, an Export Application or amendments to any of these. DMF's are generally created to allow a party other than the holder of the DMF to reference material without disclosing to that party the contents of the file.
Drug Supply Chain Security Act	The Drug Supply Chain Security Act (DSCSA), establishes requirements to facilitate the tracing of prescription drug products through the pharmaceutical supply distribution chain.
Efficacy	Capacity for producing a desired result or effect.
European Medicines Agency	The European Medicines Agency (EMA) regulates the research, development, manufacture and marketing of pharmaceutical products
FCPA	FCPA has the meaning ascribed thereto in "Risk Factors – Risk Related to the Industry in which the Company Operates – Laws and Regulations".
Food and Drug Administration	The U.S. Food and Drug Administration (FDA), an agency within the Department of Health and Human Services, the U.S. government's principal agency for protecting the health of all

	Americans, which is among other responsibilities charged with regulating pharmaceutical products in the U.S.
Food and Drug Administration Orange Book	Food and Drug Administration **(**FDA) Orange Book means the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations.
Good Clinical Practices and Good Laboratory Practices	Good Clinical Practices (GCP) and Good Laboratory Practices (GLP) are standards for the conduct of clinical trials (including laboratory studies) the data from which are expected to be submitted to a regulatory agency such as the FDA. In the case of GLP these practices are defined by regulation. GCP have arisen from general accepted clinical practices within the industry.
General Data Protection Regulation	General Data Protection Regulation (GDPR) has the meaning ascribed thereto in "Risk Factors – Risk Related to the Industry in which the Company Operates – Laws and Regulations".
Good Manufacturing Practices	Good Manufacturing Practices (GMP), i.e. guidelines established by the governments of various countries, including Canada and the U.S., to be used as a standard in accordance with the World Health Organization's Certification Scheme on the quality of pharmaceutical products.
HIPPA	HIPPA has the meaning ascribed thereto in "Risk Factors – Risk Related to the Industry in which the Company Operates – Laws and Regulations".
Heated Lidocaine/Tetracaine Patch	The HLT Patch is a topical patch that combines lidocaine, tetracaine and heat, using Nuvo's proprietary Controlled Heat-Assisted Drug Delivery (CHADD™) technology.
IND	An investigational New Drug application (IND) which must be filed and accepted by the FDA before human clinical trials may begin.
Isopropyl myristate	Isopropyl myristate is a polar emollient and is used in cosmetic and topical medicinal preparations where good absorption into the skin is desired.
Lidocaine	A common local anesthetic drug, when used topically, relieves pain by blocking signals at the nerve endings in skin and underlying tissues.
New Drug Application	New Drug Application (NDA), a document containing preclinical, clinical and chemistry, manufacturing and control data collected on a drug. An NDA is submitted to the FDA in order to obtain approval to market a prescription drug in the U.S.
Naproxen	An anti-inflammatory drug often used in the treatment of headache and arthritis.
New Drug Submission	A New Drug Submission (NDS) is an application submitted to Health Canada containing information on a drug's safety, effectiveness and quality in order to obtain approval to market the drug in Canada.
Notice of Compliance	A notification, issued by Health Canada, indicating that a manufacturer has complied with relevant sections of the Food and Drug Regulations following the satisfactory review of a

	submission (NOC). This notification serves as the marketing authorization for a new drug in Canada.
No Objection Letter	A notification, issued by Health Canada, indicating that an application for a clinical trial application is deemed acceptable (NOL).
Patient Protection and Affordable Care Act	ACA has the meaning ascribed thereto in "Risk Factors – Risk Related to the Industry in which the Company Operates – Legislative or Regulatory Reform of the Healthcare System".
Osteoarthritis	Osteoarthritis (OA) is a type of arthritis that is caused by the breakdown and eventual loss of the cartilage of one or more joints. Cartilage is a connective tissue that serves as a "cushion" between the bones of the joints.
OTCQX	OTCQX means the OTCQX over the counter market provided and operated by the OTC Market Group.
p-value	A statistics term. A measure of probability that a difference in outcome between groups during an experiment happened by chance. For example, a p-value of .01 (p = .01) means there is a 1 in 100 chance the result occurred by chance. The lower the p-value, the more likely it is that the difference between groups was caused by treatment.
Pesticide	A substance used for destroying insects or other organisms harmful to cultivated plants or to animals.
PIPEDA	has the meaning ascribed thereto in "Risk Factors – Risk Related to the Industry in which the Company Operates – Laws and Regulations".
Placebo	An inactive substance administered to a group of patients in a clinical study in order to form a control group against which the results obtained from patients receiving an active substance can be measured.
Patented Medicine Prices Review Board	Patented Medicine Prices Review Board (PMPRB) has the meaning ascribed thereto in "Risk Factors – Risk Related to the Industry in which the Company Operates –Legislative or Regulatory Reform of the Healthcare System".
Preclinical studies	Those studies generally completed prior to human clinical trials.
Preferred Shares	Preferred Shares means the preferred shares in the capital of the Company.
Proton-pump inhibitors	Proton-pump inhibitors (PPI) are a group of drugs whose main action is a long-lasting reduction in the production of stomach acid.
Patent Trial and Appeals Board	Patent Trial and Appeals Board (PTAB) has the meaning ascribed thereto in "Legal Proceedings and Regulatory Actions – Vimovo".
Risk Evaluation and Mitigation Strategy	A Risk Evaluation and Mitigation Strategy (REMS) is a strategy to manage a known or potential serious risk associated with a drug. A REMS may be required by the FDA and can include a Medication Guide, Patient Package Insert, a communication plan, an education plan, and even restricted marketing, to assure safe use of the drug.

Resultz	Resultz is a commercial-stage, OTC product intended to kill head lice and remove their eggs from hair with as little as a 5-minute treatment. It is a pesticide-free, topical solution that contains only two common cosmetic ingredients - 50% isopropyl myristate and 50% cyclomethicone D5.
RWI Policy	RWI Policy has the meaning ascribed thereto in "Significant Acquisitions – Aralez Transaction".
Supplemental New Drug Application	Supplemental New Drug Application (sNDA) allows a company to make changes in a product that already has an approved new drug application (NDA). The Center for Drug Evaluation and Research (CDER) must approve all important NDA changes (in packaging or ingredients, for instance) to ensure the conditions originally set for the product are still met.
Sumatriptan	A serotonin-agonist drug used for the acute treatment of migraines.
Tetracaine	A local anesthetic drug that can be administered by local injection or by topical application to conjunctiva, mucosae and skin. When used topically, relieves pain by blocking signals at the nerve endings in skin and underlying tissues.
Therapeutic Products Directorate	The Therapeutic Products Directorate (TPD) is the division within Health Canada that reviews New Drug Submissions.
Suvexx/Treximet	Suvexx/Treximet (sumatriptan/naproxen sodium) is a migraine medicine that was developed by Aralez's wholly owned subsidiary POZEN, Inc. in collaboration with Glaxo Group Limited, d/b/a GSK. The product is formulated with POZEN's patented technology (now owned by Nuvo) of combining a triptan, sumatriptan 85 mg, with an NSAID, naproxen sodium 500 mg and GSK's RT Technology in a single tablet.
Vimovo	Vimovo (naproxen/esomeprazole magnesium) is the brand name for a proprietary fixed-dose combination of enteric-coated naproxen, a pain-relieving NSAID, and immediate-release esomeprazole magnesium, a proton pump inhibitor (PPI), in a single delayed-release tablet.
Yosprala	Yosprala is currently the only prescription fixed-dose combination of aspirin (acetylsalicylic acid), an anti-platelet agent, and omeprazole, a proton-pump inhibitor (PPI), in the U.S.

APPENDIX I – CORPORATE COVERNANCE GUIDELINES

NUVO PHARMACEUTICALS INC.
(the "**Corporation**")

CORPORATE GOVERNANCE GUIDELINES

INTRODUCTION

The Board of Directors is committed to fulfilling its statutory mandate to supervise the management of the business and affairs of the Corporation with the highest standards of ethical conduct and in the best interests of the Corporation and its shareholders. The Board of Directors, acting on the recommendation of its Compensation, Corporate Governance and Nominating Committee (the "**CCGNC**"),[1] has adopted these corporate governance guidelines to promote the effective functioning of the Board of Directors and its committees, to promote the interests of shareholders, and to establish a common set of expectations as to how the Board of Directors, its committees, individual directors and senior management should perform their functions.

The following schedules are attached to these guidelines and form a part hereof:

Schedule 1	-	Board of Directors Charter
Schedule 2	-	Position Description for Chair of the Board
Schedule 3	-	Position Description for Lead Director of the Board
Schedule 4	-	CCGNC Charter
Schedule 5	-	Position Description for CCGNC Chair
Schedule 6	-	Audit Committee Charter
Schedule 7	-	Position Description for Audit Committee Chair

GUIDELINES

Board of Directors' Responsibilities

The business and affairs of the Corporation are managed by or under the supervision of the Board of Directors in accordance with applicable legislation, regulatory requirements and policies of the Canadian Securities Administrators. The responsibility of the Board of Directors is to provide direction and oversight and overall stewardship of the Corporation. The Board of Directors approves the strategic direction of the Corporation and oversees the performance of the Corporation's business and senior management. The senior management of the Corporation is responsible for presenting long-term strategic plans to the Board of Directors for review and approval and for implementing the Corporation's strategic direction.

The Board of Directors also expects management to report short-term results and long-term goals, on a frequent and timely basis. The Board of Director receives regular input and reports from management through the President and Chief Executive Officer, as well as from the Vice President Finance and Chief Financial Officer and other senior management.

In performing their duties, the primary responsibility of the directors is to exercise their business judgment in what they reasonably believe to be the best interests of the Corporation. In

[1] Prior to the implementation of these guidelines, the relevant committee was called the "Compensation and Corporate Governance Committee". In connection with the adoption and implementation of these guidelines, the committee's name is being changed.

discharging that obligation, directors should be entitled to rely on the honesty and the integrity of the Corporation's senior management and outside advisors and auditors. The directors also should be entitled to have the Corporation purchase reasonable directors' and officers' liability insurance on their behalf, and to the benefits of indemnification to the fullest extent permitted by applicable law and to exculpation as provided by applicable law.

In fulfilling its statutory mandate and discharging its duty of stewardship of the Corporation, the Board of Directors assumes responsibility for those matters set forth in its Charter (which also is its mandate).

Board of Directors' Size

It is the current view of the Board of Directors that the Board of Directors should consist of no more than seven members to facilitate its effective functioning.

Chair of the Board of Directors

The Board of Directors believes that, at this time, it is appropriate for the Corporation to have a Chair who is not independent. The Chair should carry out his or her responsibilities in accordance with the position description for the Chair.

Because the Chair is not independent, a Lead Director has been appointed by the Board of Directors. The Lead Director should carry out his or her responsibilities in accordance with the written position description for the Lead Director.

Selection of Directors

As provided in the CCGNC's Charter, the CCGNC will be responsible for identifying and recommending to the Board of Directors individuals qualified to become members of the Board of Directors, based primarily on the following criteria:

- judgment, character, expertise, skills and knowledge useful to the oversight of the Corporation's business,
- diversity of viewpoints, backgrounds, experiences and other demographics,
- business or other relevant experience, and
- the extent to which the interplay of the individual's expertise, skills, knowledge and experience with that of other members of the Board of Directors will build a board that is effective, collegial and responsive to the needs of the Corporation.

The CCGNC also will be responsible for initially assessing whether a candidate would be independent (and in that process applying the "Categorical Standards for Determining Independence of Directors" (that are appended to the Board of Directors Charter) and advising the Board of Directors of that assessment.

The Board of Directors, taking into consideration the recommendations of the CCGNC, will be responsible for selecting the nominees for election to the Board of Directors, for appointing directors to fill vacancies, and determining whether a nominee or appointee is independent.

Election of Directors

Each director should be elected by the vote of a majority of the shares represented in person or proxy at any meeting for the election of directors. If any nominee for election as director receives, from the shares voted at the meeting in person or by proxy, a greater number of votes "withheld" than votes "for" his or her election, the director will be expected to promptly tender his or her resignation to the Chair of the Board of Directors following the meeting, to take effect upon acceptance by the Board of Directors. The CCGNC will expeditiously consider the director's offer to resign and make a recommendation to the Board of Directors whether to accept that offer. Within 90 days of the meeting of shareholders, the Board of Directors will make a final decision concerning the acceptance of the director's resignation and announce that decision by way of a news release. Any director who tenders his or her resignation will not participate in the deliberations of the Board of Directors or any of its committees pertaining to the resignation. This process applies only in circumstances involving an "uncontested" election of directors – where the number of director nominees does not exceed the number of directors to be elected and where no proxy materials are circulated in support of one or more nominees who are not part of the slate supported by the Board of Directors for election at the meeting. If any director fails to tender his or her resignation as contemplated in this paragraph, the Board of Directors will not re-nominate that director. Subject to any corporate law restrictions, where the Board of Directors accepts the offer of resignation of a director and that director resigns, the Board of Directors may exercise its discretion with respect to the resulting vacancy and may, with out limitation, leave the resultant vacancy unfilled until the next annual meeting of shareholders, fill the vacancy through the appointment of a new director whom the Board of Directors considers to merit the confidence of the shareholders, or call a special meeting of shareholders to elect a new nominee to fill the vacant position.

Committee Membership

Each of the Audit Committee and the CCGNC will be composed of no fewer than three members, each of whom will satisfy the membership criteria set out in the relevant committee charter. Members of committees will be appointed by the Board of Directors upon the recommendation of the CCGNC. A director may serve on more than one committee and committee membership may be rotated periodically as necessary or advisable. The Board of Directors, taking into account the recommendation of the CCGNC, generally will designate one member of each committee as chair of that committee. Committee chairs shall carry out their responsibilities in accordance with their respective position descriptions. Committee chairs may be rotated periodically as well.

Evaluating Board of Directors and Committee Performance

The CCGNC will conduct an annual assessment of the effectiveness of the Board of Directors and each of the committees.

Board of Directors and Committee Meetings

The Board of Directors and each committee should meet as provided in its respective charter.

An agenda for each meeting of the Board of Directors and each committee meeting will be provided to each director and each member of the relevant committee. Any director or member of a committee may suggest the inclusion of subjects on the agenda of meetings of the Board of Directors or a committee. Each director and each member of a committee is free to raise at a meeting of the Board of Directors or a committee meeting, respectively, subjects that are not on the agenda for that meeting.

Materials provided to the directors for meetings of the Board of Directors and committee meetings should provide the information needed for the directors and members of the committee, respectively, to make informed judgments or engage in informed discussions.

To ensure free and open discussion and communication among directors, the independent directors will meet in executive session (with no members of senior management or non-independent directors present) after every regularly scheduled meeting of the Board of Directors and otherwise as those directors determine. The Lead Director will preside at these executive sessions, unless the directors present at such meetings determine otherwise. Any interested party may communicate directly with the Lead Director, who may invite such person to address an executive session.

Unless the chair of a committee otherwise determines, the agenda, materials and minutes for each committee meeting will be available on request to all directors, and all directors will be free to attend any committee meeting. All meetings of a committee will have a session in which the members of the committee will meet with no non-committee members present and at any time in a meeting of a committee, directors who are not members may be asked to leave the meeting to ensure free and open discussion and communication among members of the committee. It is at the Board of Directors' discretion as to whether directors who are not members of a committee will be compensated for attending meetings of that committee.

Director Compensation

As provided for in the CCGNC Charter, the form and amount of director compensation will be determined by the Board of Directors from time to time upon the recommendation of the CCGNC.

Expectations of Directors

The Board of Directors has developed a number of specific expectations of directors to promote the discharge by the directors of their responsibilities and to promote the efficient conduct of the Board of Directors.

Commitment and Attendance. All directors should strive to attend all meetings of the Board of Directors and the committees of which they are members. Attendance by telephone or video conference may be used when necessary to facilitate a director's attendance.

Participation in Meetings. Each director should be sufficiently familiar with the business of the Corporation, including its financial statements and capital structure, and the risks it faces, to ensure active and effective participation in the deliberations of the Board of Directors and of each committee on which he or she serves.

Loyalty and Ethics. In their roles as directors, all directors owe a duty of loyalty to the Corporation. This duty of loyalty mandates that the best interests of the Corporation take precedence over any other interest possessed by a director. Directors should conduct themselves in accordance with the Corporation's Code of Business Conduct and Ethics.

Contact with Senior Management and Employees. All directors should be free to contact any of the members of the Corporation's senior management at any time to discuss any aspect of the Corporation's business. The Board of Directors expects that there will be frequent opportunities for directors to meet with members of senior management in meetings of the Board of Directors and committees, or in other formal or informal settings.

Confidentiality. The proceedings and deliberations of the Board of Directors and its committees are confidential. Each director will maintain the confidentiality of information received in connection with his or her service as a director.

Orientation and Continuing Education

Senior management, working with the Board of Directors, will provide appropriate orientation and education for new directors to familiarize them with the Corporation and its business, as well as the expected contribution of individual directors. All new directors will participate in this program orientation and education, which should be completed within four months of a director first joining the Board of Directors. In addition, senior management will schedule periodic presentations for the Board of Directors to ensure they are aware of major business trends and industry practices as and when required.

SCHEDULE 1

NUVO PHARMACEUTICALS INC.
(the "**Corporation**")

BOARD OF DIRECTORS CHARTER

PURPOSE

The Board of Directors is elected by the Corporation's shareholders to supervise the management of the business and affairs of the Corporation, in the best interests of the Corporation. The Board of Directors shall:

- Review and approve the strategic plan and business objectives of the Corporation that are submitted by senior management and monitor the implementation by senior management of the strategic plan. During at least one meeting each year, the Board of Directors will review the Corporation's long-term strategic plans and the principal issues that the Corporation expects to face in the future.

- Review the principal strategic, operational, reporting and compliance risks for the Corporation and oversee, with the assistance of the Audit Committee, the implementation and monitoring of appropriate risk management systems and the monitoring of risks.

- Ensure, with the assistance of the Compensation, Corporate Governance and Nominating Committee (the "**CCGNC**"), the effective functioning of the Board of Directors and its committees in compliance with applicable corporate governance requirements, and that such compliance is reviewed periodically by the CCGNC.

- Ensure internal controls and management information systems for the Corporation are in place and are evaluated and reviewed periodically on the initiative of the Audit Committee.

- Assess the performance of the Corporation's senior management and periodically monitor the compensation levels of such senior management based on determinations and recommendations made by the CCGNC.

- Ensure that the Corporation has in place a policy for effective communication with shareholders, other stakeholders and the public generally.

- Review and, where appropriate, approve the recommendations made by the various committees of the Board of Directors.

COMPOSITION

The Board of Directors collectively should possess a broad range of skills, expertise, industry and other knowledge, and business and other experience useful to the effective oversight of the Corporation's business. The Board of Directors should be comprised of that number of individuals which will permit the Board of Directors' effective functioning. The appointment and removal of directors shall occur in accordance with the *Business Corporations Act* (Ontario) and the Corporation's by-laws. A majority of the Board of Directors should meet the independence requirements of applicable legislation, regulatory requirements and policies of the Canadian Securities Administrators. The Board of Directors has adopted a set of categorical standards for determining whether directors satisfy those requirements for independence. A copy of those

standards is attached as **Appendix A.** The Board of Directors, upon the recommendation of the CCGNC, shall designate the Chair and Lead Director by majority vote of the Board of Directors.

MEETINGS

The Board of Directors shall meet at least four times each year and more frequently as circumstances require. All members of the Board of Directors should strive to be at all meetings. The Board of Directors may meet separately, periodically, without senior management, and may request any member of the Corporation's senior management or the Corporation's outside advisors or auditor to attend meetings of the Board of Directors.

COMMITTEES

The Board of Directors may delegate authority to individual directors and committees where the Board of Directors determines it is appropriate to do so. The Board of Directors expects to accomplish a substantial amount of its work through committees and shall form at least the following two committees: the Audit Committee and the CCGNC. The Board of Directors may, from time to time, establish or maintain additional standing or special committees as it determines to be necessary or appropriate. Each committee should have a written charter and should report regularly to the Board of Directors, summarizing the committee's actions and any significant issues considered by the committee.

INDEPENDENT ADVICE

In discharging its mandate, the Board of Directors shall have the authority to retain (and authorize the payment by the Corporation of) and receive advice from special legal, accounting or other advisors as the Board of Directors determines to be necessary to permit it to carry out its duties.

ANNUAL EVALUATION

Annually, the Board of Directors through the CCGNC shall, in a manner it determines to be appropriate:

- Conduct a review and evaluation of the performance of the Board of Directors and its members and committees, including the compliance of the Board of Directors with this Charter. This evaluation will focus on the contribution of the Board of Directors to the Corporation and specifically focus on areas in which the directors and senior management believe that the contribution of the Board of Directors could be improved.

- Review and assess the adequacy of this Charter and the position description for the Chair and Lead Director and make any improvements the Board of Directors determines to be appropriate.

APPENDIX A

CATEGORICAL STANDARDS FOR DETERMINING INDEPENDENCE OF DIRECTORS

For a director to be considered independent under the rules of the Canadian Securities Administrators, he or she must have *no direct or indirect material relationship with the Corporation*, being a relationship that could, in the view of the Board of Directors, reasonably interfere with the exercise of a director's independent judgement.

The Board of Directors, upon the recommendation of the CCGNC, has considered the types of relationships that could reasonably be expected to be relevant to the independence of a director of the Corporation. The Board of Directors has determined that:

1. A director's interests and relationships arising solely from his or her (or any immediate family members'[2]) shareholdings in the Corporation are not, in and of themselves, a bar to independence.

2. Unless a specific determination to the contrary is made by the CCGNC as a result of there being another direct or indirect material relationship with the Corporation, a director will be independent unless currently, or at any time within the past three years, he or she or any immediate family member:

   - Employment: Is (or has been) an officer or employee (or, in the case of an immediate family member, an executive officer) or (in the case of the director only) of the Corporation or any of its subsidiaries (collectively, the "**Corporation Group**") or is actively involved in the day-to-day management of the Corporation;

   - Direct Compensation: Receives (or has received) direct compensation during any twelve-month period from the Corporation Group (other than director fees and committee fees and pension or other forms of deferred compensation for prior service, provided it is not contingent on continued service);[3]

   - Auditor Relationship. Is (or has been) a partner or employee of a firm that is the Corporation's auditor (provided that in the case of an immediate family member, he or she participates in its audit, assurance or tax compliance (but not tax planning practice)) and if during that time, he or she or an immediate family member was a partner or employee of that firm but no longer is such, he or she or the immediate family member personally worked on the Corporation's audit;

   - Material Commercial Relationship. Has (or has had), or is an executive officer, employee or significant shareholder of a person that has (or has had), a significant commercial relationship with the Corporation Group;

[2] A (i) spouse, parent, child, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, sister-in-law, or (ii) any person (other than domestic employees) who shares that director's home.

[3] Employment as an interim chair or an interim Chief Executive Officer need not preclude a director from being considered independent following the end of that employment. Receipt of compensation by an immediate family member need not preclude a director from being independent if that family member is a non-executive employee.

- Cross-Compensation Committee Link. Is employed as an executive officer of another entity whose compensation committee (or similar body) during that period of employment included a current executive officer of the Corporation; or

- Material Association. Has (or has had) a close association with an executive officer of the Corporation.

Notwithstanding the foregoing, no director will be considered independent if applicable securities legislation, rules or regulations expressly prohibit such person from being considered independent.

SCHEDULE 2

NUVO PHARMACEUTICALS INC.
(the "**Corporation**")

CHAIR OF THE BOARD OF DIRECTORS

POSITION DESCRIPTION

The Chair is a director who is designated by the Board of Directors to assist the Board of Directors in fulfilling its duties effectively and efficiently.

The designation of the Chair shall take place annually at the first meeting of the Board of Directors after a meeting of the shareholders at which directors are elected, provided that if the designation is not so made, the director who is then serving as Chair shall continue as Chair until his or her successor is appointed.

Chair

The responsibilities of the Chair include:

- acting as a liaison between the Board of Directors and management,
- promoting a thorough understanding by members of the Board of Directors and senior management of the duties and responsibilities of the Board of Directors,
- recommending procedures to enhance the work of the Board of Directors and cohesiveness among directors,
- ensuring that the Board of Directors is appropriately involved in approving strategy and supervising senior management's progress against achieving that strategy,
- in connection with meetings of the Board of Directors:
    - taking the principal initiative in scheduling meetings of the Board of Directors,
    - organizing and presenting the agenda for Board of Directors meetings such that,
        - all of the responsibilities assigned to the Board of Directors under the terms of its Charter are discharged on a timely and diligent basis, and
        - members of the Board of Directors have input into the agendas,
    - monitoring the adequacy of materials provided to the Board of Directors by senior management in connection with the Board of Directors deliberations,
    - ensuring that members of the Board of Directors have sufficient time to review the materials provided to them and to fully discuss the business that comes before the Board of Directors, and
    - presiding over meetings of the Board of Directors,

- on an annual basis, facilitating the annual performance review and evaluation of the Board of Directors and its members in accordance with the Charter and facilitating the assessment of the adequacy of the Charter, and

- performing such other functions as may be ancillary to the duties and responsibilities described above and as may be delegated to the Chair by the Board of Directors from time to time.

SCHEDULE 3

NUVO PHARMACEUTICALS INC.
(the "**Corporation**")

LEAD DIRECTOR OF THE BOARD

POSITION DESCRIPTION

The Lead Director is an "independent" director who is designated by the Board of Directors to assist the Board of Directors in fulfilling its duties independent of management. The Lead Director role also exists to ensure that directors have an independent leadership contact.

The designation of the Lead Director shall take place annually at the first meeting of the Board of Directors after a meeting of the shareholders at which directors are elected, provided that if the designation is not so made, the director who is then serving as Lead Director shall continue as Lead Director until his or her successor is appointed.

Lead Director

The responsibilities of the Lead Director include:

- acting as an independent liaison between the Board of Directors and senior management,
- together with the Chair, promoting a thorough understanding by members of the Board of Directors and management of the duties and responsibilities of the Board of Directors,
- together with the Chair, recommending procedures to enhance the work of the Board of Directors,
- working with the Chair to ensure that the Board of Directors is appropriately involved in approving strategy and supervising management's progress against achieving that strategy,
- ensuring that independent directors have had adequate opportunities to discuss issues without management present,
- communicating to senior management, as appropriate, the results of private discussions among independent directors,
- together with the Chair, in connection with meetings of the Board of Directors:
    - scheduling meetings of the Board of Directors,
    - organizing and presenting the agenda for Board of Directors meetings such that,
        - all of the responsibilities assigned to the Board of Directors under the terms of its Charter are discharged on a timely and diligent basis, and
        - members of the Board of Directors have input into the agendas,
    - monitoring the adequacy of materials provided to the Board of Directors by management in connection with the Board of Directors deliberations,

  - ensuring that members of the Board of Directors have sufficient time to review the materials provided to them and to fully discuss the business that comes before the Board of Directors,

  - presiding over meetings of the Board of Directors where the Chair is not in attendance, and

  - presiding over executive meetings of the Board of Directors, its non-management directors and its independent directors,

- on an annual basis, facilitating the annual performance review and evaluation of the Board of Directors and its members in accordance with the Charter and facilitating the assessment of the adequacy of the Charter,

- presiding over meetings of the Corporation's shareholders when the Chair is absent or when the Board of Directors determines the Lead Director should do so, and

- performing such other functions as may be ancillary to the duties and responsibilities described above and as may be delegated to the Lead Director by the Board of Directors from time to time.

SCHEDULE 4

NUVO PHARMACEUTICALS INC.
(the "**Corporation**")

COMPENSATION, CORPORATE GOVERNANCE AND NOMINATING COMMITTEE CHARTER

PURPOSE

The Compensation, Corporate Governance and Nominating Committee (the "**CCGNC**") is appointed by the Board of Directors to, when necessary or appropriate, and to the extent not otherwise being considered and addressed by the Board of Directors:

- Recruit, develop and retain senior management,
- conduct performance evaluations and determine compensation of senior management,
- develop succession planning systems and processes relating to senior management,
- develop a compensation structure for the Board of Directors and senior management, including salaries, annual and long-term incentive plans and plans involving share options, share issuances and share unit awards,
- deal with all material benefit plan matters,
- develop to the Board of Directors appropriate corporate governance principles for the Corporation,
- develop procedures for the conduct of Board meetings, and the proper discharge of the Board of Directors' mandate,
- oversee periodic reviews of the Board of Directors', its committees' and individual directors' performance and the assessment of the Board of Directors' and committees' charters,
- undertake such other initiatives to enable the Board of Directors to provide effective corporate governance,
- develop criteria for selecting new directors,
- assist the Board of Directors by identifying individuals qualified to become members of the Board of Directors (consistent with criteria approved by the Board of Directors),
- develop a list of director nominees for the annual meeting of shareholders and for each committee of the Board of Directors and the chair of each committee, and
- make recommendations, if required, to the Board of Directors with respect to the matters listed above.

REPORTS

The CCGNC shall report to the Board of Directors on a regular basis, and in any event at least annually. The CCGNC shall prepare a report on the Corporation's system of corporate

governance practices for inclusion in the management information circular or other public disclosure documents of the Corporation. The CCGNC also shall prepare a report disclosing the extent (if any) to which the Corporation does not comply with the corporate governance guidelines of applicable legislation, regulatory requirements and policies of the Canadian securities administrators.

COMPOSITION

The members of the CCGNC shall be three directors who are appointed (and may be replaced) by the Board of Directors. The appointment of members of the CCGNC shall take place annually at the first meeting of the Board of Directors after a meeting of shareholders at which directors are elected, provided that if the appointment of members of the CCGNC is not so made, the directors who are then serving as members of the CCGNC shall continue as members of the CCGNC until their successors are appointed. The Board of Directors may appoint a member to fill a vacancy that occurs in the CCGNC between annual elections of directors. Any member of the CCGNC may be removed from the CCGNC by a resolution of the Board of Directors. Unless the Chair is appointed by the Board of Directors, the members of the CCGNC may designate a Chair by majority vote of the members of the CCGNC.

Each of the members of the CCGNC shall meet the Corporation's "Categorical Standards for Determining Independence of Directors". Each member of the CCGNC shall have or develop an understanding of corporate governance principles and practices.

RESPONSIBILITIES

Corporate Governance and Compliance

The CCGNC shall, when necessary or appropriate, and to the extent not otherwise being considered and addressed by the Board of Directors:

- Review from time to time the size of the Board of Directors and number of directors who are independent for the purpose of applicable requirements,

- periodically review the adequacy of the Corporate Governance Guidelines and Code of Business Conduct and Ethics of the Corporation and determine any proposed changes to those Guidelines or that Code to the Board of Directors for approval,

- be responsible for granting any waivers from the application of the Corporation's Code of Business Conduct and Ethics and review senior management's monitoring of compliance with that Code,

- periodically review the practices of the Board of Directors (including separate meetings of non-management directors and of independent directors) to ensure compliance with the Corporate Governance Guidelines of the Corporation, periodically review the powers, mandates and performance, and the membership of the various committees of the Board of Directors,

- periodically review the relationship between senior management and the Board of Directors with a view to ensuring that the Board of Directors is able to function independently of senior management, and

- make recommendations, if required, to the Board of Directors with respect to the matters listed above.

Compensation

The CCGNC shall, when necessary or appropriate, and to the extent not otherwise being considered and addressed by the Board of Directors:

- At least annually, review with the Chief Executive Officers the long term goals and objectives of the Corporation which are relevant to the Chief Executive Officers' compensation, evaluate the Chief Executive Officers' performance in light of those goals and objectives, determine and recommend to the independent directors for approval, the Chief Executive Officers' compensation based on that evaluation, and report to the Board of Directors thereon. In determining the Chief Executive Officers' compensation, the CCGNC shall consider the Corporation's performance, the value of similar incentive awards to Chief Executive Officers at comparable companies, and the awards given to the Chief Executive Officers in past years, with a view to maintaining a compensation program for the Chief Executive Officers at a fair and competitive level, consistent with the best interests of the Corporation,

- at least annually, in consultation with the Chief Executive Officers, review the compensation of all members of senior management other than the Chief Executive Officer, with a view to maintaining a compensation program for the senior management at a fair and competitive level, consistent with the best interests of the Corporation,

- periodically review compensation of directors, the Chair, the Lead Director and those acting as committee chairs to, among other things, ensure their compensation appropriately reflects the responsibilities they are assuming,

- fix and determine (and, as it determines to be appropriate, delegate the authority to fix and determine) awards (and the vesting criteria thereof) to employees of stock or stock options pursuant to any of the Corporation's equity-based plans now or from time to time in effect or otherwise as permitted by applicable legislation, regulatory requirements and policies of the Canadian securities administrators and applicable stock exchanges and exercise such other power and authority as may be permitted or required under those plans,

- in co-operation with the Corporation's senior management, oversee the human resources policies and programs which are of strategic significance to the Corporation,

- review all executive compensation disclosure prior to public disclosure by the Corporation,

- periodically review with the Board of Directors the succession plans relating to the senior positions and make selections of individuals to occupy these positions, and

- make recommendations, if required, to the Board of Directors with respect to the matters listed above.

Director Candidates

The CCGNC shall, when necessary or appropriate, and to the extent not otherwise being considered and addressed by the Board of Directors:

- Review periodically the competencies, skills and personal qualities required of directors to add value to the Corporation in light of the opportunities and risks facing the Corporation and the Corporation's proposed strategies, the need to ensure that a majority of the Board of Directors is comprised of individuals who meet the independence requirements of applicable

legislation and stock exchange requirements, and the policies of the Board of Directors with respect to director tenure, retirement and succession and director commitments,

- In co-operation with the Corporation's senior management, oversee an appropriate orientation and education for any new directors in order to familiarize them with the Corporation and its business,

- Actively seek individuals qualified (in context of the Corporation's needs and any formal criteria established by the Board of Directors) to become members of the Board of Directors for recommendation to the Board of Directors,

- Review the membership and allocation of directors to the various committees of the Board of Directors, and the chairs thereof,

- Establish procedures for the receipt of comments from all directors to be included in an periodic assessment of the Board of Director's performance,

- If the need should arise, approve the engagement of independent advisors for individual directors at the expense of the Corporation, and

- make recommendations, if required, to the Board of Directors with respect to the matters listed above.

MEETINGS

The CCGNC shall meet at least twice per year and more frequently as circumstances require. All members of the CCGNC should strive to be at all meetings. The CCGNC shall meet separately, periodically, with senior management and may request any member of the Corporation's senior management or the Corporation's outside counsel to attend meetings of the CCGNC or with any members of, or advisors to, the CCGNC. The CCGNC will also meet in camera at each of its regularly scheduled meetings.

Quorum for the transaction of business at any meeting of the CCGNC shall be a majority of the number of members of the CCGNC or such greater number as the CCGNC shall by resolution determine. The powers of the CCGNC may be exercised at a meeting at which a quorum of the CCGNC is present in person or by telephone or other electronic means or by a resolution signed by all members entitled to vote on that resolution at a meeting of the CCGNC. Each member (including the Chair) is entitled to one (but only one) vote in CCGNC proceedings.

Meetings of the CCGNC shall be held from time to time and at such place as a member of the CCGNC may request upon 48 hours prior notice. The notice period may be waived by a quorum of the CCGNC.

The CCGNC may delegate authority to individual members and subcommittees of its members where the CCGNC determines it is appropriate to do so.

INDEPENDENT ADVICE

In discharging its mandate, the CCGNC shall have the authority to retain (and authorize the payment by the Corporation of) and receive advice from special legal or other advisors as the CCGNC determines to be necessary to permit it to carry out its duties. The CCGNC shall have the sole authority to appoint and, if appropriate, terminate any consultant used to identify director candidates and to approve the consultant's fees and other retention terms.

ANNUAL EVALUATION

Annually, the CCGNC shall, in a manner it determines to be appropriate:

- Conduct a review and evaluation of the performance of the CCGNC and its members, including the compliance of the CCGNC with this Charter.

- Review and assess the adequacy of its Charter and the position description for its Chair and recommend to the Board of Directors any improvements to this Charter or the position description that the CCGNC determines to be appropriate.

SCHEDULE 5

NUVO PHARMACEUTICALS INC.
(the "**Corporation**")

CHAIR OF THE COMPENSATION, CORPORATE GOVERNANCE AND NOMINATING COMMITTEE

POSITION DESCRIPTION

The Chair is a member of the Compensation, Corporate Governance and Nominating Committee (the "**CCGNC**"), designated by the Board of Directors to assist the CCGNC in fulfilling its duties effectively and efficiently in accordance with the written charter of the CCGNC.

The Chair will provide leadership to the CCGNC in discharging its mandate as set out in the Charter, including by promoting:

- a thorough understanding by members of the CCGNC and senior management of the duties and responsibilities of the CCGNC, and
- cohesiveness among members of the CCGNC.

The Chair shall be the liaison between the CCGNC, the Board of Directors and the Corporation's senior management, promoting open and constructive discussions between members of the CCGNC and each of these parties.

In connection with meetings of the CCGNC, the Chair shall be responsible for:

- recommending procedures to enhance the work of the CCGNC,
- taking the principal initiative in scheduling meetings of the CCGNC,
- organizing and presenting the agenda for CCGNC meetings such that:
    - all of the responsibilities assigned to the CCGNC under the terms of its Charter are discharged on a timely and diligent basis, and
    - members of the CCGNC have input into the agendas,
- monitoring the adequacy of materials provided to the CCGNC by senior management in connection with the CCGNC's deliberations,
- ensuring that members of the CCGNC have sufficient time to review the materials provided to them and to fully discuss the business that comes before the CCGNC, and
- presiding over meetings of the CCGNC.

On an annual basis, the Chair will facilitate:

- the performance review and evaluation of the CCGNC and its members in accordance with the Charter, and

- a review and assessment of the adequacy of the Charter and this position description, and following such review and assessment, make a recommendation to the Board of Directors with respect to any changes the CCGNC deems appropriate.

The Chair shall perform such other functions as may be ancillary to the duties and responsibilities described above and as may be delegated to the Chair by the CCGNC or the Board of Directors from time to time.

SCHEDULE 6

NUVO PHARMACEUTICALS INC.
(the "**Corporation**")

AUDIT COMMITTEE CHARTER

March 22, 2018

PURPOSE

The purpose of the Audit Committee (the "**Committee**") is to assist the Board of Directors of Nuvo Pharmaceuticals Inc. (the "**Board**") in fulfilling its responsibilities of oversight and supervision of the accounting and financial reporting practices and procedures, the adequacy of internal accounting controls and procedures and the quality and integrity of the consolidated financial statements of Nuvo Pharmaceuticals Inc. (the "**Company**") and its affiliates. The Committee is also responsible for the audit process.

More specifically the purpose of the Committee is to satisfy itself that:

A. The Company's annual financial statements are fairly presented in accordance with International Financial Reporting Standards ("**IFRS**") and to recommend to the Board whether the annual financial statements should be approved.

B. The information contained in the Company's quarterly financial statements, annual report and other financial publications, such as management's discussion and analysis, is complete and accurate in all material respects and to recommend to the Board whether these materials should be approved.

C. The Company has appropriate systems of internal control over the safeguarding of assets and financial reporting to ensure compliance with legal and regulatory requirements.

D. The external audit functions have been effectively carried out and that any matter which the independent auditors wish to bring to the attention of the Board has been addressed. The Committee will also recommend to the Board the re-appointment or appointment of auditors and their remuneration.

COMPOSITION AND TERMS OF OFFICE

A. Following each annual meeting of the Company, the Board shall appoint three or more directors to serve on the Committee. Such appointees shall not be officers or employees of either the Company or its affiliates. Each member of the Committee must be "Independent" as defined by Multilateral Instrument 52-110 and "Unrelated" according to the rules of the Toronto Stock Exchange (the "**TSX**") from time to time, and free of any relationship that could, or could reasonably be perceived to, in the opinion of the Board, interfere with the exercise of independent judgment as a member of the Committee. All members of the Committee must be financially literate and be able to read and understand fundamental financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Company's financial statements including the Company's balance sheet, income statement and cash flow statement, or develop that capability within a reasonable time after appointment.

B. The chair of Committee shall be appointed by the Board and shall not be an officer or employee of the Company or its affiliates. The chair of the Committee shall be a “financial expert” having an understanding of IFRS and financial statements, internal controls and procedures for financial reporting and, if possible, shall have served as the principal financial officer for another business entity.

C. Any member of the Committee may be removed or replaced at any time by the Board and shall cease to be a member upon ceasing to be a director of the Company. Each member of the Committee shall hold

office until the close of the next annual meeting of the Company or until the member resigns or is replaced, whichever first occurs.

D. The Committee will meet at least four times per year. The meetings will be scheduled to permit timely review of the interim and annual financial statements of the Company and its affiliates. Additional meetings may be held as deemed necessary by the chair of the Committee or as requested by any member of the Committee or by the external auditors.

E. If all members consent, and proper notice has been given or waived, a member or members of the Committee may participate in a meeting of the Committee by means of such telephonic, electronic or other communication facilities as permit all persons participating in the meeting to communicate adequately with each other, and a member participating in such a meeting by any such means is deemed to be present at that meeting.

F. A quorum for the transaction of business at all meetings of the

Committee shall be a majority of the members of the Committee. Questions arising at any meeting shall be determined by a majority of votes of the members of the Committee present, and in case of an equality of votes the Chair of Committee shall have a second casting vote.

G. The Committee may invite such directors, officers and employees of

as it may see fit from time to time to attend meetings of the Committee and assist in the discussion and consideration of the business of the Committee, but without voting rights.

H. The Committee shall keep regular minutes of proceedings and shall cause them to be recorded in books kept for that purpose, and shall report the same to the Board at such times as the Board may, from time to time, require.

I. Supporting schedules and information reviewed by the Committee will be available for examination by any director upon request to the Secretary of the Committee.

J. The Committee shall choose as its secretary such person as it deems appropriate.

K. The external auditors shall be given notice of, and have the right to appear before and to be heard at, every meeting of the Committee, and shall appear before the Committee when requested to do so by the Committee.

DUTIES AND RESPONSIBILITIES

Subject to the powers and duties of the Board, the Board hereby delegates to the Committee the following powers and duties to be performed by the Committee on behalf of and for the Board:

Financial Reporting Control

The Committee shall:

(i) review reports from senior officers of the Company, outlining any significant changes in financial risks facing the Company;

(ii) review the management letter of the external auditors and responses to suggestions made;

(iii) annually review the Audit Committee Charter and the performance of the Committee itself;

(v) review any new appointments to senior positions of the Company or its affiliates, with financial reporting responsibilities; and

(vi) obtain assurance the external auditors regarding the overall control environment and the adequacy of accounting system controls.

Interim Financial Statements

The Committee shall:

(i) review interim financial statements with officers of the Company prior to their release and recommend their approval to the Board. This will include a detailed review of quarterly and year-to-date results; and

(ii) review the Company's MD&A and press releases accompanying interim financial statements.

Annual Financial Statements and Other Financial Information

The Committee shall:

(i) review any changes in accounting policies or financial reporting requirements that may affect the current year's financial statements;

(ii) obtain summaries of significant transactions and other potentially difficult matters whose treatment in the annual financial statements merits advance consideration;

(iii) obtain draft annual financial statements in advance of the Committee meeting and assess, on a preliminary basis, the reasonableness of the financial statements in light of the analyses provided by officers of the Company;

(iv) review a summary provided by the Company's general counsel of the status of any material pending or threatened litigation, claims and assessments;

(v) discuss the annual financial statements and the auditors' report thereon in detail with officers of the Company and its auditors;

(vi) review the annual report and other annual financial reporting documents including management's discussion and analysis and press release;

(vii) provide to the Board a recommendation as to whether the annual financial statements should be approved;

(vii) review insurance coverage including directors' and officers' liability coverage; and

(viii) review the Company's Annual Information Form ("**AIF**") and ensure compliance with FORM 52-110F1, audit committee information required in an AIF.

External Audit Terms of Reference, Reports, Planning and Appointment

The Committee shall:

(i) ensure that the external auditor explicitly acknowledges that they are ultimately and directly accountable to the Board and the Committee as representatives of the shareholders;

(ii) review the audit plan with the external auditors;

(iii) specify its expectations of the external auditors, including the expected relationship between the external auditors and the Committee;

(iv) discuss in private with the external auditors matters affecting the conduct of their audit and other corporate matters, including:

- the quality (not only acceptability) of financial statements and their conformity with IFRS;
- the quality of internal controls;
- the appropriateness of financial statement disclosures; and
- any other matters the external auditors may wish to bring to the attention of the Committee.

(v) recommend to the Board each year the retention or replacement of the external auditors. This process shall include establishment of criteria for and an ongoing assessment of the continued independence of the external auditor. If there is a plan to change auditors, review all issues related to the change and the steps planned for an orderly transition; and

(vi) annually review and recommend for approval to the Board the terms of engagement and the remuneration of the external auditors.

Other Matters

The Committee shall:

(i) pre-approve all non-audit services to be provided to the Company or its subsidiary entities by the issuer's external auditor.

(ii) establish procedures for the receipt, retention and treatment of complaints received by the issuer regarding accounting, internal accounting controls, or auditing matters; and

(iii) establish procedures for the confidential, anonymous submission by employees of the issuer of concerns regarding questionable accounting or auditing matters.

ACCOUNTABILITY

A. The Committee shall report to the Board at its next regular meeting all such action it has taken since the previous report.

B. The Committee is empowered to investigate any activity of the Company and all employees are to co-operate as requested by the Committee. The Committee may retain persons having special expertise to assist it in fulfilling its responsibilities.

C. The Committee is authorized to request the presence at any meeting, but without voting rights, of a representative from the external auditors, senior management, legal counsel or anyone else who could contribute substantively to the subject of the meeting and assist in the discussion and consideration of the business of the Committee, including directors, officers and employees of the Company.

SCHEDULE 7

NUVO PHARMACEUTICALS INC.
(the "**Corporation**")

CHAIR OF THE AUDIT COMMITTEE

POSITION DESCRIPTION

The Chair is a member of the Audit Committee, designated by the Board of Directors to assist the Audit Committee in fulfilling its duties effectively and efficiently in accordance with the written charter of the Audit Committee.

The Chair will provide leadership to the Audit Committee in discharging its mandate as set out in its Charter, including by promoting:

- a thorough understanding by members of the Audit Committee and senior management of the duties and responsibilities of the Audit Committee, and
- cohesiveness among members of the Audit Committee.

The Chair shall be the liaison between the Audit Committee, the Board of Directors and the Corporation's senior management, promoting open and constructive discussions between members of the Committee and each of these parties.

In connection with meetings of the Audit Committee, the Chair shall be responsible for:

- recommending procedures to enhance the work of the Committee,
- taking the principal initiative in scheduling meetings of the Audit Committee,
- organizing and presenting the agenda for Audit Committee meetings such that:
    - all of the responsibilities assigned to the Audit Committee under the terms of its Charter are discharged on a timely and diligent basis, and
    - members of the Audit Committee have appropriate input into the agendas,
- monitoring the adequacy of materials provided to the Audit Committee by senior management and the independent auditors in connection with the Audit Committee's deliberations,
- ensuring that members of the Audit Committee have sufficient time to review the materials provided to them and to fully discuss the business that comes before the Audit Committee, and
- presiding over meetings of the Audit Committee.

On an annual basis, the Chair will facilitate:

- the performance review and evaluation of the Audit Committee and its members in accordance with the Charter, and

- a review and assessment of the adequacy of the Charter and this position description, and following such review and assessment, make a recommendation to the Board of Directors with respect to any improvements the Audit Committee deems appropriate.

The Chair shall perform such other functions as may be ancillary to the duties and responsibilities described above and as may be delegated to the Chair by the Audit Committee or the Board of Directors from time to time.