NanoSphere Health Sciences Inc.

Management Discussion & Analysis

June 30, 2019

The following Management Discussion and Analysis ("MD&A") of NanoSphere Health Sciences Inc. (the "Company" or "NanoSphere Health Sciences" or " NanoSphere") should be read in conjunction with the condensed consolidated interim financial statements of the Company for the period ended June 30, 2019 which have been prepared in accordance with the International Financial Reporting Standards ("IFRS"). This MD&A includes certain statements that may be deemed "forward looking statements". All statements in this MD&A, other than statements of historical fact, that address future exploration activities and events or developments that the Company expects, are forward looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Additional information can be found on SEDAR at www.sedar.com. This MD&A is dated as of August 29, 2019.

DESCRIPTION OF THE COMPANY

NanoSphere Health Sciences is a biotechnology firm that created a patented NanoSphere Deliver System, a revolutionary platform using nanotechnology in the biodelivery of supplements, nutraceuticals and over-the-counter medications for the cannabis, pharmaceutical and animal health industries, and beyond. NanoSphere Delivery System represents one of the most important developments for advancing the non-invasive and user-friendly delivery of biological agents in over 25 years. The Company trades on the Canadian Securities Exchange under the symbol 'NSHS'.

Company Updates and Highlights

Subsequent to year-end 2017 the Company was formally granted its Master patent on the NanoSphere Delivery System, protecting the Company's core technology of nanoencapsulation and delivery of bioactive compounds. This patent is a significant milestone for the Company and protects our novel bioactive delivery technology. for Nutraceuticals, Cosmeceuticals, Pharmaceuticals, Animal health and others. These are all areas of opportunity for the Company to expand and develop ground breaking products. The Company was further granted it's second Patent which provides our exclusivity for Cannabinoid delivery utilizing our NanoSphere Delivery System. This patented technology is first being utilized to produce our flagship product, Evolve, NanoSerum, which is branded under Evolve Formulas name. Evolve NanoSerum was developed as the Company saw a unique opportunity for our patented delivery platform. The Company has also developed a new CBD version of the NanoSerum. The CBD product contains the promising and highly topical ingredient resveratrol, with the intent of providing additional health benefits.

The cannabis industry is growing rapidly, and NanoSphere's technology has the ability to help by solving several of its most limiting problems, i.e. the delivery of cannabis, cannabinoids and terpenes into body tissues more efficiently and without the need to draw potentially toxic smoke into the lungs or produce excessive levels of unwanted metabolites which occur when using edible cannabis products. The Company currently has Evolve products in Colorado and are entering production in California where we expect with to be available in dispensaries in Q4 2019. Our Canadian licensee is submitting their product application to Health Canada this month (August 2019) and, on approval, is set to conduct their first production run 60 days later. Our Oregon licensee is currently awaiting approval of their state marijuana license and plans to begin production and launch sales of our Evolve products late Q4 2019.

The Company experienced several significant setbacks in it's rollout of Evolve products in Colorado and California, largely due to changes in regulations and packaging challenges. These setbacks, to some considerable extent, contributed to the serious underperformance experienced in 2018 thru the first two quarters of 2019. In light of the Company's performance, changes in leadership needed to be made.

In June 2019, the Board of Directors appointed Dr. Mark Percival as the new Chief Executive Officer of the Company, succeeding Robert Sutton upon his retirement and David Sutton stepped down as President and C.O.O.

With due diligence by Percival still underway, priorities, focus and revenue expectations are being reset. Percival, with full board support, is cognizant of the folly in "overpromising and underdelivering". While investors who had hoped for a quick return on their investment in Company are undoubtedly disappointed at this time, we have now adopted a strategy and approach that will establish our foundation for long-term, sustainable growth and value. Percival's approach has been to meet with the industry's top companies in order to understand their interests and priorities in regard to our technology and potential joint ventures. Our go-forward strategy is to grow through effective joint venture partnerships in cooperative agreements. To do so we must understand the needs and plans of those premier companies we are striving to partner with. This understanding allows us to leverage one another's respective strengths. What has emerged to date is the need to further our research, development and scientific understandings underpinning our technology's effectiveness. As joint venture discussions progress with some of the largest and most successful companies in the markets we are in and those we will be entering, it has become apparent that the key to our success lies in our expanding the science and evidence behind our technology and products. This did not get the time, attention and resources it required previously and is now no small task as it commands considerable attention and resources, yet it establishes the foundation for long-term, sustainable success with world class partnerships. In tandem, we continue to invest in the expansion and protection of our Intellectual Property. In addition to the two patents granted in 2018, we have been allowed and just paid the grant fee in Canada for the patent "Methods of Treating Inflammatory Disorders and Global Inflammation with Compositions Comprising Phospholipid Nanoparticle Encapsulations of NSAIDs". This opens the door to discussions with pharmaceutical companies on how we may partner to develop and commercialize a line of NSAID-related products. Company is beginning an investor relations campaign to ensure understanding of the need for R&D and more sustainable long-term growth to be our priority at this time. It will likely take us the better part of 18-24 months to establish the foundation, science and strong JV partnerships we need, yet we have a very promising future.

As reported previously, additional capital was raised in February 2019, wherein the Company issued 6,666,394 units at CAD$0.30 per unit for gross proceeds of $1,505,237 (CAD$1,999,918). Each unit consisted of one common share and one half of one share purchase warrant entitling the holder to purchase one common share at a price of CAD$0.50. In connection with the financing, 106,050 finder warrants with a fair value of $12,871 and cash of $40,654 (CAD$54,119) was recorded as share issuance costs.

SUMMARY OF QUARTERLY RESULTS

Results of Operations for the three-month period ended June 30, 2019 compared to 2018

The net loss for the three-month period ended June 30, 2019 decreased by $283,530 to $525,755 as compared to $809,285 for the three-month period ended June 30, 2018. The significant decrease in net loss was due to investor relation and marketing decreased to $88,158 as compared to $255,248 for the three months periods ended June 30, 2019 and 2018, respectively, due to the Company entered into multiple investor relations contracts in advance of its rights offering for a largescale short-term investor relations campaign. Additionally, during the three months ended June 30, 2019, the Company recognized a license revenue of $4,200 (2018 - $201,403).

	2019		**2018**				**2017**	
	Q2	**Q1**	**Q4**	**Q3**	**Q2**	**Q1**	**Q4**	**Q3**
Sales, net of provision	4,200	265,060	37,881	-	-	-	-	-
Net loss	525,755	728,958	2,058,539	651,692	809,285	995,189	9,285,808	254,595
Basic and diluted net loss per share	0.01	0.01	0.02	0.01	0.02	0.01	0.90	NA

Results of Operations for the six-month period ended June 30, 2019 compared to 2018

The net loss for the period decreased by $549,761 to $1,254,713 (2018 – $1,804,474). Individual items contributing to the net loss:

- Depreciation increased by $71,001 to $85,468 (2018 - $14,467) as the Company acquired assets through business expansion and adopted IFRS 16 by recording office lease right-of-use asset, for which the Company recognized higher depreciation.

- Investor relations and marketing decreased by $361,149 to $218,752 (2018 - $579,901). During the comparative period, the Company entered into multiple investor relations contracts for a large-scale investor relations campaign. The Company does not expect these costs to persist and is focusing on reducing its investor relations expenditures.

- Office and administrative decreased by $166,687 to $35,748 (2018 - $202,435) as the Company focused on reducing office expenditures.

- Professional fees decreased by $144,163 to $103,050 (2018 - $247,213) as the Company incurred legal fees related to corporate affairs.

- Salaries and consulting decreased by $28,649 to $562,652 (2018 - $591,301) resulted from the decrease in management fees.

- Share-based payment increased by $39,138 to $97,002 (2018 - $136,140). The expense relates primarily to stock options granted and vested during the period and are not expected to be comparable over the two periods as the expense is dependent on the timing of grants and vesting schedules.

- Travel decreased by $53,449 to $75,975 (2018 - $129,424) as the management continue to strengthen relationships with customers and build new partnerships.

Cash flows for the six-month period ended June 30, 2019 compared to 2018

- Cash outflows from operating activities decreased by $788,841 to $1,173,115 (2018 – $1,961,956) primarily due to the decrease in investor relations and marketing, and salaries and consulting expenses.

- Cash outflows from investing activities decreased by $678,214 to $103,950 (2018 – $782,164) primarily due to a decrease in the acquisition of equipment for the six-month period ended June 30, 2019 as compared to the same period in 2018.

- Cash inflows from financing activities increased by $1,255,453 to $1,364,583 (2018 - $109,130) as the Company completed a non-brokered private placement by issuing 6,666,394 units at CAD$0.30 per unit for gross proceeds of $1,505,237 (CAD$1,999,918). Of the total proceeds, $100,000 (CAD$132,000) was received in advance as at December 31, 2018.

LIQUIDITY AND CAPITAL RESOURCES

The Company has no significant revenues to date. In order to manage risk, the Company closely monitors its cash requirements and expenditures. At June 30, 2019 and December 31, 2018, the Company's working capital and deficit were as follows:

		June 30, 2019		December 31, 2018
Working capital (deficit)	$	54,856	$	(168,153)
Deficit		(17,875,435)		(16,620,722)

As at June 30, 2019, the Company has a working capital of $54,856. Management is actively reviewing financing opportunities in order to meet working capital requirements for the current fiscal year.

BASIS OF PRESENTATION - INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS)

The annual consolidated financial statements of the Company comply with IFRS as issued by the International Accounting Standards Board ("IASB") and interpretations of the International Financial Reporting Interpretations Committee ("IFRIC").

The consolidated financial statements of the Company have been prepared on an accrual basis and are based on historical costs, modified where applicable. The consolidated financial statements are presented in US dollars unless otherwise noted.

RELATED PARTY TRANSACTIONS

The consolidated financial statements include the financial statements of NanoSphere Health Sciences Inc. and its 100% owned subsidiaries.

Key management compensation

During the six month period ended June 30, 2019, the Company paid or accrued:

a) Salaries and consulting fees of $54,000 (2018 - $75,000) to the CEO of the Company, $65,750 (2018 – $80,000) to the Chief Science Officer of the Company, $35,750 (2018 - $39,000) to the Chief Marketing Officer of the Company, $72,700 (2018 - $75,000) to the President and COO of the Company, $53,986 (2018 - $72,000) to Vice President of Finance of the Company, and $11,247 (2018 - $15,000) to the CFO of the Company.

b) Share-based compensation of $50,693 (2018 - $118,390) to the officers and directors of the Company was recorded

Included in accounts payable and accrued liabilities is $110,751 (2018 - $10,658) due to directors, officers, and companies controlled by directors and officers of the Company that is non-interest bearing and due on demand.

During the year ended December 31, 2015, the Company received advances of $60,000 for Canosphere, LLC a company controlled by the directors of the Company. The advances were unsecured, non-interest bearing and have been forgiven by Canosphere, LLC during the period ended December 31, 2017.

On April 2, 2018, the Company entered into a license agreement with Evergreen Biosciences, LLC to sub-license the Company's patented NanoSphere Delivery technology. Evergreen Biosciences is partially owned by Chief Operating Officer of the Company. On April 2, 2018, Evergreen Biosciences, LLC (a related party) sub-licenced the Company's NanoSphere Delivery technology to CCBA LLC. Additionally, on April 20, 2018, the Company entered into agreements to license the NanoSphere delivery technology to certain companies in the states of California and Nevada.

CRITICAL ACCOUNTING ESTIMATES

Critical accounting estimates

Management is required to make certain estimates, judgments and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported expenses during the period. Actual results could differ from these estimates.

Significant assumptions about the future and other sources of estimation and judgement uncertainty that management has made at the end of the reporting period, that could result in a material adjustment to the carrying amounts of assets and liabilities in the event that actual results differ from assumptions made, relate to:

I. Going concern

   The assessment of the Company's ability to continue as a going concern involves critical judgement based on historical experience. Significant judgements are used in the Company's assessment of its ability to continue as a going concern. Management anticipates the need to raise additional funds within the next 12 months to pay operational costs and fund any investing activities. To the extent financing is not available, lease payments, rental payments, and other payments may not be satisfied and could result in a loss of earning opportunities for the Company. These material uncertainties may cast significant doubt upon the Company's ability to continue as a going concern which is further described in Note 1 and Note 2 in the financial statements.

II. Licensing agreement

   During the year of December 31, 2018, the Company entered into two licensing arrangements for the use of proprietary technology. Management concluded that licensing arrangements do not result in control of the licensee, in accordance with IFRS.

III. Loans and receivables

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. After initial recognition, loans and receivables are measured at amortized cost using the effective interest rate method, less any impairment losses. The carrying amount is reduced through the use of an allowance account. When an amount receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance are recognized in profit or loss.

RISKS AND UNCERTAINTIES

This section discusses factors relating to the business of Company that should be considered by both existing and potential investors. The information in this section is intended to serve as an overview and should not be considered comprehensive and the Company may face risks and uncertainties not discussed in this section, or not currently known to us, or that we deem to be immaterial. All risks to the Company's business have the potential to influence its operations in a materially adverse manner

The following sets out the principal risks (non-inclusive) faced by the Company.

Financing risks. The Company will be dependent upon the capital markets to raise additional financing in the future, while it furthers the research, science and development that will underpin the commercialization of our technology and future products. As such, the Company is subject to liquidity risks in meeting its development and future operating cost requirements in instances where cash positions are unable to be maintained or appropriate financing is unavailable. These factors may impact the Company's ability to raise equity or obtain loans and other credit facilities in the future and on terms favorable to the Company and its management. If uncertain market conditions persist, the Company's ability to raise capital could be jeopardized, which could have an adverse impact on the Company's operations and the trading price of the Company's shares on the Exchange.

Share Price Volatility and Price Fluctuations. The market price for the Common Shares of the Company could be subject to wide fluctuations. Factors such as commodity prices, government regulation, interest rates, share price movements of peer companies and competitors, as well as overall market movements, may have a significant impact on the market price of the Company. The stock market has from time to time experienced extreme price and volume fluctuations, which have often been unrelated to the operating performance of particular companies.

Key personnel risks. The Company's business development efforts are dependent to a large degree on the skills and experience of certain of its key personnel. The Company does not maintain "key man" insurance policies on these individuals. Should the availability of these persons' skills and experience be in any way reduced or curtailed, this could have a material adverse outcome on the Company and its securities.

Collection of revenue risk. The Company records licensing revenue but to date has not received payment. The Company has assessed the collectability of revenue and determined that it can reasonably expect collection and has accounted for revenue in accounts receivable. Should revenue not be collected, it could be reserved in subsequent filings.

History of Net Losses; Accumulated Deficit; Lack of Revenue from Operations. The Company has incurred net losses to date. Its deficit as of June 30, 2019 was $17,875,435. The Company does not have a strong history of sales operations and there is no assurance that it will produce revenue, operate profitably or provide a return on investment in the future.

Uninsurable risks. The Company may be subject to liability for risks against which it cannot insure or against which the Company may elect not to insure due to the high cost of insurance premiums or other factors. The payment of any such liabilities would reduce the funds available for the Company's normal business activities. Payment of liabilities for which the Company does not carry insurance may have a material adverse effect on the Company's financial position and operations.

Change in Law, Regulations and Guidelines. The Company's business is subject to a variety of laws, regulations and guidelines relating to marketing, acquisition, manufacture, management, transportation, storage, sale and disposal of medical marijuana but also laws and regulations relating to health and safety, the conduct of operations and the protection of the environment. Changes to such laws, regulations and guidelines may cause adverse effects to the Company's operations. On February 24, 2016, the Federal Court released its decision in the case of Allard et al v. Canada, declaring that the Marijuana for Medical Purposes Regulations ("MMPR"), as it was drafted, was unconstitutional in violation of the plaintiffs' rights under section 7 of the Charter of Rights and Freedoms. On August 24, 2016, the Access to Cannabis for Medical Purposes Regulations ("ACMPR") came into force, replacing the MMPR as the regulations governing Canada's medical cannabis regime which permits patients to produce a limited amount of cannabis for their own medical purposes or to designate a person to produce a limited amount of cannabis. The ACMPR could potentially decrease the size of the market for the Company's business, and potentially materially and adversely affect the Company's business, its results of operations and financial condition.

Unfavourable Publicity or Consumer Perception. The success of the medical marijuana industry may be significantly influenced by the public's perception of marijuana's medicinal applications. Medical marijuana is a controversial topic, and there is no guarantee that future scientific research, publicity, regulations, medical opinion and public opinion relating to medical marijuana will be favourable. The medical marijuana industry is an early-stage business that is constantly evolving with no guarantee of viability. The market for medical marijuana is uncertain, and any adverse or negative publicity, scientific research, limiting regulations, medical opinion and public opinion relating to the consumption of medical marijuana may have a material adverse effect on our operational results, consumer base and financial results.

Political and Economic Instability. The Company may be affected by possible political or economic instability. The risks include, but are not limited to, terrorism, military repression, extreme fluctuations in currency exchange rates and high rates of inflation. Changes in medicine and agriculture development or investment policies or shifts in political attitude in certain countries may adversely affect the Company's business. Operations may be affected in varying degrees by government regulations with respect to restrictions on production, distribution, price controls, export controls, income taxes, expropriation of property, maintenance of assets, environmental legislation, land use, land claims of local people and water use. The effect of these factors cannot be accurately predicted.

FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

Financial instruments measured at fair value are classified into one of three levels in the fair value hierarchy according to the relative reliability of the inputs used to estimate the fair values. The three levels of the fair value hierarchy are:

Level 1: Unadjusted quoted prices in active markets for identical assets or liabilities;
Level 2: Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly; and
Level 3: Inputs that are not based on observable market data.

The fair value of the Company's receivables, accounts payable and accrued liabilities, approximate carrying value, which is the amount recorded on the consolidated statement of financial position. Cash and receivables, under the fair value hierarchy are based on level one quoted prices in active markets for identical assets or liabilities.

The Company is exposed in varying degrees to a variety of financial instrument related risks. The Board of Directors approves and monitors the risk management processes, inclusive of documented investment policies, counterparty limits, and controlling and reporting structures. The type of risk exposure and the way in which such exposure is managed is provided as follows:

Credit risk

Credit risk is the risk that one party to a financial instrument will fail to discharge an obligation and cause the other party to incur a financial loss. The Company's primary exposure to credit risk is on its cash held in bank accounts. The majority of cash is deposited in bank accounts held with major banks in Canada. This risk is managed by using major banks that are high credit quality financial institutions as determined by rating agencies. The Company's secondary exposure to risk is on its other receivables. This includes GST receivable of $41,864 from the Government of Canada. Management believes that the credit risk concentration with respect to receivables is minimal.

Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company has a planning and budgeting process in place to help determine the funds required to support the Company's normal operating requirements on an ongoing basis. The Company ensures that there are sufficient funds to meet its short-term business requirements, taking into account its anticipated cash flows from operations and its holdings of cash.

Historically, the Company's sole source of funding has been the issuance of equity securities for cash, primarily through private placements. The Company's access to financing is always uncertain. There can be no assurance of continued access to significant equity funding.

All of the contractual maturities of the Company's non-derivative financial liabilities are within one year of the financial statement end date.

Market risk

Market risk is the risk of loss that may arise from changes in market factors such as interest rates, foreign exchange rates, and commodity and equity prices.

a) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.

The risk that the Company will realize a loss as a result of a decline in the fair value of the short-term investments included in cash is minimal.

b) Foreign currency risk

The Company is exposed to foreign currency risk on fluctuations related to cash, accounts receivable and accounts payable and accrued liabilities that are denominated in Canadian Dollars (CAD). Based on management's knowledge and experience of the financial markets, the Company believes that 10% fluctuation in the CAD against the US Dollars would have a nominal affect on net loss for the period.

c) Price risk

The Company is exposed to price risk with respect to commodity and equity prices. Equity price risk is defined as the potential adverse impact on the Company's earnings due to movements in individual equity prices or general movements in the level of the stock market. Commodity price risk is defined as the potential adverse impact on earnings and economic value due to commodity price movements and volatilities. The Company closely monitors commodity prices of gold, individual equity movements, and the stock market to determine the appropriate course of action to be taken by the Company.

Sensitivity Analysis

The carrying amount of cash, receivables, and accounts payable and accrued liabilities approximates their fair value due to their short-term nature. The Company does not have significant exposure to changing interest rates.

Based on management's knowledge and experience of the financial markets, the Company believes the following movement is "reasonably possible".

Capital management

The Company's primary objectives in capital management are to safeguard the Company's ability to continue as a going concern in order to provide returns for shareholders and to maintain sufficient funds to finance current production of the Company's patented NanoSphere Delivery System and development of future products utility system. Capital is comprised of the Company's shareholders' equity. The Company manages its capital structure to maximize its financial flexibility making adjustments to it in response to changes in economic conditions and the risk characteristics of the underlying assets and business opportunities.

The Board of Directors does not establish quantitative return on capital criteria for management, but rather relies on management to sustain future development and commercialization of the business. The Company will continue to assess sources of financing available and to assess the potential for collaboration with interested partners with a view to managing its current financial resources in the interest of sustaining the long-term viability of the Company's operations.

Management reviews its capital management approach on an on-going basis and believes that this approach, given the stage of the Company, is reasonable.

OUTSTANDING SHARE DATA

Common shares, options, warrants and convertible securities outstanding as at the date of this report**:**

Security	Outstanding
Common Shares	108,355,051
Options	3,750,000
Warrants	17,638,869

SUBSEQUENT EVENT

Subsequent to June 30, 2019, the Company:

a) Issued 3,710,000 options at $0.25CDN with terms between 5 and 10 years to directors, officers and employees of the company.

b) In July 2019, Dr. Richard Kaufman, Stephanie Hopper, Michael Iverson, Toby Lim and David Sutton were re-elected to the Board of Directors at the Company's annual general meeting. Mr. Robert Sutton announces his retirement at the meeting and declined to stand for re-election. Mr. Michael Iverson has assumed the office of the Chairman. David Sutton also stepped down from the office of President and COO.

PROPOSED TRANSACTIONS

The Company has no proposed transactions other than already disclosed.

OFF BALANCE SHEET ARRANGEMENTS

The Company has no off-balance sheet arrangements.

OTHER INFORMATION

Additional information on the Company is available on SEDAR at www.SEDAR.COM