NanoViricides’ Topical Drug Candidate Against Shingles (VZV) Preparing for Regulatory Trials;

SARS-CoronaVirus-2 Therapeutics in Development

An Array of Indications in Herpecide™ Program Alone

Corporate Presentation
February 24, 2020

Presented by:
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NanoViricides, Inc. (www.nanoviricides.com) is a development stage company that is creating special purpose nanomaterials as therapeutics against a number of different viruses. The Company's novel nanoviricide® class of drug candidates are designed to specifically attack enveloped virus particles and to dismantle them. All of our drug candidates are based on broad and exclusive worldwide licenses in perpetuity from TheraCour Pharma, Inc. for the development of drugs to combat viral infections of Human Immunodeficiency Virus (HIV/AIDS), Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Herpes Simplex Viruses (HSV-1 and HSV-2), Varicella-Zoster Virus (VZV), Influenza and Asian Bird Flu viruses, Dengue viruses, Ebola/Marburg viruses, Japanese Encephalitis virus, viruses causing viral Conjunctivitis (a disease of the eye). The Company anticipates obtaining a license for the coronaviruses field. Typically, the Company obtains a license for a virus field after initial studies demonstrate effectiveness against a virus in that field. TheraCour has not denied any licenses requested by the Company.

This document contains forward-looking statements that reflect the current expectation of NanoViricides, Inc. (the “Company”) regarding future events. Actual events could differ materially and substantially from those projected herein and depend on a number of factors. Certain statements are “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. You should not place undue reliance on forward-looking statements since they involve known and unknown risks, uncertainties and other factors which are, in some cases, beyond the Company’s control and which could, and likely will, materially affect actual results, levels of activity, performance or achievements.

The Company assumes no obligation to publicly update or revise these forward-looking statements for any reason, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future. Important factors that could cause actual results to differ materially from the company's expectations include, but are not limited to, those factors that are disclosed under the heading "Risk Factors" and elsewhere in documents filed by the company from time to time with the United States Securities and Exchange Commission and other regulatory authorities.

Although it is not possible to predict or identify all such factors, they may include the following: demonstration and proof of principle in pre-clinical trials that a nanoviricide is safe and effective; successful development of our product candidates; our ability to seek and obtain regulatory approvals, including with respect to the indications we are seeking; the successful commercialization of our product candidates; and market acceptance of our products.
Developing Drugs that Virus May Not Escape due to Mutations

Industry-Leading Platform Technology Exclusively Licensed from TheraCour Pharma, Inc.

Our Own cGMP-Capable Manufacturing, R&D, and Nanomedicine Characterization Facility Enables Rapid Development and Potential for Early Commercialization Revenues On Our Own

Broad Pipeline with Multi-Billion Dollar Markets

SARS-CoV-2 Therapeutics Development Strategy and Status

Current Focus on HerpeCide™ Program with a Franchise of Drugs

Lead Drug Candidate - NV-HHV-101 for Shingles Rash Indication

NV-HHV-101 - Shingles Rash - First Drug Candidate

Technology Strategy, Other Programs

Team
Developing Drugs that Virus May Not Escape due to Mutations

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Lead Drug Candidate - NV-HHV-101 for Shingles Rash Indication

Investment Thesis - Company Valuation, cGMP Manufacturing Capabilities, Platform Technology, Multiple Candidates and Programs, Poised for a Strong Future

NV-HHV-101 - Shingles Rash - First Drug Candidate

Technology Strategy, Other Programs

Team
Novel Platform Technology: A nanoviricide® is a Cell Mimic

Viral Resistance to the Nanoviricide Drug is Unlikely because Even as the Virus Mutates, It Still Binds to the Same Cell Surface Receptor(s), in the Same Fashion

A nanoviricide “Looks Like” a Human Cell to the Virus

A nanoviricide is large enough for a virus particle to latch onto it. Yet small enough to circulate readily in the body.

Rather than the virus particle entering into a nanoviricide, a nanoviricide wraps around the virus particle and encapsulates it by using the virus particle’s very same ability to enter a cell.
A NanoViricide® Attacking a Virus Particle: Unique, Novel, Nanotech Design

Attacking the Virus Using Its Own, Conserved, Cell-Binding Features: Multi-point, Multi-targeted Therapeutics

1. A nanoviricide® binds to a virus particle
2. Bound nanoviricide® lipid fusion with virus particle
3. Bound nanoviricide® wrapping onto virus particle
4. A nanoviricide®

BIND

ENCAPSULATE

DESTROY

A virus particle destroyed by a nanoviricide®
Nanoviricides Dismantling MCMV Virus Particle

Control

Treated

MCMV Virus Particle Containing Multiple Capsids

Virus Dismantled; Capsids Spilling Out
A: intermediate state;
C: total dismantling
NanoViricides is a Unique Drug Developer Company with Its Own cGMP-Capable Manufacturing Capability

Clinical Product Supply Capability for Mostly All of Our Nanoviricides

Significant Time and Cost Savings

Potential for Manufacturing Commercial Product - Market Entry & Early Revenues

Nanomedicines Characterization Facility

Virology BSL-2 Certified Lab

Protect Proprietary Technology & Intellectual Property

Rapid Transfer from Lab Bench to cGMP Manufacture

Highly Customizable and Flexible Pharma Manufacturing Capability

Skin Creams, Eye Drops, Gels, Injectables, Oral…
NanoViricides Platform Technology Has Enabled Several Drug Programs for a Broad Drug Pipeline

Pre-Clinical Successes Achieved in Several Programs

<table>
<thead>
<tr>
<th>FluCide™ Injectable</th>
<th>FluCide™ Oral</th>
<th>HIVCide™</th>
<th>DengueCide™</th>
<th>Other Programs: Platform Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potentially One Drug for All Influenzas</td>
<td>Potentially One Drug for All Influenzas</td>
<td>Potentially “Functional Cure?”</td>
<td>Avoid ADE Effect</td>
<td>Select Ligand for Different Virus</td>
</tr>
<tr>
<td>Injectable for High Potency</td>
<td>Oral for Ease of Use by Out-Patients</td>
<td>Possibly the Only Technology Platform that Can Enable Total Cure of HIV by Hunting Out Latent Infection</td>
<td>NanoViricides has Orphan Drug Benefits in US &amp; EU</td>
<td>Select Polymer Backbone for Desired Route of Administration</td>
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</tbody>
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Many More Possibilities for the Platform

The overall anti-viral market addressed by our programs was estimated to be $40 billion in 2018 and $65.5 billion in 2023a


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SARS-CoV-2 NanoViricide Drug Development Using Biomimetic Technology

NanoViricides Has Already Designed Multiple Small Chemical Ligands to Mimic ACE-2 Epitope at which SARS-CoV S1 Binds

Angiotensin Converting Enzyme 2 (ACE2) Serves as Receptor for the 2002 SARS-CoV as well as the 2019 SARS-CoV-2

Backbone Polymer is in our Inventory

Backbone Polymer Already Produced in Multi-Kilogram Quantities Under c-GMP Processes

Covalent Attachment of Ligands to Polymer in Progress

Circulating Human Coronavirus Strains Have Been Expanded

Cell Culture Based CoronaVirus Inhibition Assay is Being Implemented in Our Own BSL-2 Virology Lab

Multi-Kg cGMP-capable Manufacturing On Our Own Site Can be Performed Once Lead is Identified and Validated

One Platform-Based Drug Candidate (NV-HHV-101) is in IND Application Stage - Has Already Successfully Completed Safety/Toxicology Studies
Our Current Focus is on the HerpeCide™ Program Regulatory Development

NanoViricides Leveraging HerpeCide Program Developments into Multiple Drugs Franchise

<table>
<thead>
<tr>
<th>VZV Shingles</th>
<th>HSV-2 Genital Lesions</th>
<th>HSV-1 Cold Sores</th>
<th>Herpes Keratitis</th>
<th>“ARN” Acute Retinal Necrosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal Topical Cream</td>
<td>Genital Topical Cream</td>
<td>Dermal Topical Cream</td>
<td>Eye Drops</td>
<td>VZV, HSV-1, HSV-2 mainly</td>
</tr>
</tbody>
</table>

|  | VZV Lead Drug Candidate NV-HHV-101 | HSV-2 | HSV-1 | Herpes Keratitis | Acute Retinal Necrosis |
|  | Shingles Rash Treatment | Genital Ulcers Treatment | Cold Sores Treatment | Herpes Keratitis Treatment | Acute Retinal Necrosis Treatment |
|  | IND-Enabling Studies; Pre-Clinical Optimization | Pre-Clinical Optimization | Pre-Clinical | Pre-Clinical |
|  | Dermal Topical Skin Cream | Dermal Topical Skin Cream | Dermal Topical Skin Cream | Eye Drops | Injectable |

Additional Future Indications in HerpeCide Program

|  | Chickenpox (Possibly Orphan Drugs) | PHN (Post-Herpetic Neuralgia) | Recurrent Herpes Labialis |

**Market Size for HerpeCide™ Program Drugs estimated at Over $3-5 Billion**

Lead Indication Shingles Rash Market Size estimated at $1 Billion or More (takes into account impact of Shingrix and other Vaccines)
NanoViricides’ Regulatory Strategy

Dermal Topical Drug as First Candidate -> Quicker Path

- rather than systemic therapeutics

Multiple Indications with Same Drug Candidate or its Derivatives to Maximize Shareholder Value and ROI

- VZV Shingles
- HSV-2 Genital Herpes
- HSV-1 Herpes Labialis “Cold Sores”
- Herpes Keratitis (HSV-1 >95%) (External Eye)
- Also: Ocular Herpes; Acute Retinal Necrosis; Other Indications

Distribute Development Costs over Multiple Indications
Lead Drug Candidate NV-HHV-101: Business Case

**Potentially Billion+ Dollar Market for Topical Shingles Rash Treatment alone, even after the new vaccine Shingrix® has been introduced**

- **500,000 to 1,000,000 Cases Annually in the USA Alone**

Additionally, NV-HHV-101 is Expected to Lead into Dermal Topical Treatments for:

- HSV-1 “Cold Sores”, and
- HSV-2 “Genital Ulcers”

Open Multi-Billion Dollar Additional Markets

Many Additional Indications

Expanding Indications means Improving ROI and Maximizing Shareholder Returns
Lead Drug Candidate NV-HHV-101 Status - Getting Ready for IND Filing

Indication: Shingles Rash Treatment. Form: Topical Skin Cream

Anticipate Human Clinical Trials to Begin in CY 2020 Q1/Q2

FDA Response “Generally Adequate” on Pre-IND Filed with FDA

Non-Clinical Safety/Toxicology Studies Complete - except certain analyses

Awaiting GLP Safety/Toxicology Study Reports

External Collaborations for IND Write-ups, Clinical Trial Design, eCTD Conversion, and FDA Submission in Progress

Clinical Trial Site Selection in Progress

Proposed Adaptive Protocol Phase I Plus Phase Ila Combined

IND Filing - Major Milestone

Program Expected to Provide Value-Driving Data Reads As the Trials Progress
Investment Thesis: NanoViricides Platform Technology and Facility

Platform Technology - A “Venus-Fly-Trap” for Viruses - “Bind-Encapsulate-Destroy” - Drugs that Viruses Cannot Escape by Mutations

Multiple Drug Programs with Many Candidates having demonstrated Successful Animal Model Effectiveness and Safety

Enable Continuing Future Growth

Own cGMP Manufacturing Facility Supplying Clinical Product Needs

Saves Money, Time, and Minimizes IP Exposure

May Enable Production for Early Commercial Market Entry

Early Successes - Strong Effectiveness in Influenza, HIV

Now Focused on Regulatory Development of Drugs in HerpeCide™ Program

IND-Enabling Safety and Effectiveness of First Drug Candidate Demonstrated

Validate Platform Substantially as First Drug Goes Through Clinical Trials
**Investment Thesis:**
**NanoViricides Valuation**

- Company Founded and taken public (reverse shell merger) in 2005 - Platform Technologies Licensed from TheraCour Pharma, Inc.
- Market Cap Historically Around $100~150M
- Uplisted to NYSE-American in September 2013
- Moved to Integrated cGMP Manufacturing & R&D Facility in 2015
- Fully Owned Facility Asset Value ~$10M Net-of-Depreciation
- Focused on Regulatory Development of HerpeCide Program
- “Valley of Death” Phenomenon
- Valuation May be Anticipated to Go Substantially Higher with First Drug Entering Clinical Trials
- Large Market Sizes Enable Strong Future Potential
Shingles Rash breakouts - HHV-3 aka VZV

Unmet Medical Need: Available drugs in use not very effective (vaccines exist)

The chickenpox virus surviving in ganglia causes Shingles in adults

- About 500,000 to 1 Million Cases Per Year in the USA Alone
- Risk Increases with Age

Triggered by Reduced Immune Function

- Stress, Age, Immune Compromised/Suppressed

Severe Stinging Pain & Zosteriform Rash

- Pain May Persist for Months or Years After Resolution of Outbreak - PHN
- Virus Damaged Nerves Continue to Signal Sharp, Debilitating Pain
- Pain Could be Avoided/Minimized if Virus is Controlled

Broad-Spectrum HerpeCide™ Could be a Highly Effective Drug

Potential Billion+ Dollar Market Size projected even after the new vaccine introduction
Standard of Care, Valtrex® Oral, is Not Very Effective

Because viral TK enzyme activity required for converting Acyclovir class of drugs to active form is very poor in VZV compared to HSV-1 or HSV-2

5x More Effective than Acyclovir in Cell Culture

Human Skin Patch Organ Culture Studies ->

Highly Effective

Very Safe - No Histological Changes

Studies in Professor Jennifer Moffat Lab, Upstate Medical Center, SUNY, Syracuse, NY

Professor Moffat is a Leading Researcher in VZV Infection
Optimization Studies
VZV (Shingles) Topical Candidates Highly Effective - Five Times More Effective against VZV than Acyclovir in Cell Cultures (Pre-Clinical)

NanoViricides Drug Candidates Effective Against VZV (Shingles Virus) Infection

Also, Against HSV-1 and HSV-2, Found Similar Strong Effectiveness in Cell Cultures using multiple virus strains and multiple cell lines

Poster Presented by NanoViricides at the American Society of Virology Annual Meeting, 2018, Madison, WI.
VZV (Shingles) Topical Drug Candidates Are Highly Effective Match Efficacy of Cidofovir in Human Skin Organ Culture Model of VZV Infection (Pre-Clinical)

Nanoviricide Candidate Effectively Reduces Shingles Virus in Human Skin Patch Culture Model

VZV Infected Skin - Basal Layer Breaches seen, Also, Multinucleated Giant Cells seen

NV-118 Treated VZV Infected Skin - Normal Dermis and Epidermis. No viral infiltration or lesions seen

Note: Cidofovir is highly toxic (https://reference.medscape.com/drug/vistide-cidofovir-342606#5)

Poster Presented by Moffat Group, SUNY Syracuse Upstate Medical Center, at the International Conference on Antiviral Research, June 11-15, 2018, Porto, Portugal
VZV (Shingles) Topical Candidate Moving Rapidly To Clinical Trials

Preliminary Non-GLP Safety/Tolerability Studies in Rats Successful (2018)

- No clinically observable adverse safety and toxicology effects in topical administration
- No clinically observable adverse safety and toxicology effects in systemic administration (IV or IP)
- No observable direct effects on the primary organ functions whether the drug was administered to the skin or systemically
- Liver and kidney function is unaffected, among other organs
- Consistent with Strong Safety Observed in Human Skin Patch Efficacy Model Studies

Thereupon Undertook Manufacturing Scale-up, Final Drug Candidate Optimization, Final Drug Product Formulation, and Entry into IND-enabling Safety/Toxicology Studies (“Tox Package”)
VZV (Shingles) Topical Drug Candidate: IND-Enabling Safety/Toxicology Package Studies
Non-GLP Studies

Non-GLP Portion of IND-Enabling Safety/Toxicology Studies Completed by BASi, IN ca. February, 2019

Excellent Safety Profile Observed

cGMP Manufacture for GLP Safety/Toxicology Studies Completed

GLP Studies began in May, 2019, at BASi, IN

GLP Safety/Toxicology Studies

In-life Portion of GLP Studies completed in July 2019, at BASi, IN

Excellent Safety Profile Observed in Clinical Observations

Toxicokinetics Studies In Progress - Almost Complete

Histological Studies Complete

Awaiting Reports
HerpeCide™ Program Future Expansion

Drug Candidates in Current HerpeCide Program
May Have Applications Against Other HerpesViruses:

 Epstein-Barr Virus:
- Mononucleosis
- Monoclonal Gammopathy
- other B-cell diseases, etc.

 Cytomegalovirus: Retinitis, Organ Transplant etc.

 HHV-6A, HHV-6B, HHV-7
- several diseases are associated
- encephalopathy, epilepsy
- sialoadenopathy, Sicca syndrome
- T-cell diseases
Strong Executive Team

Anil R. Diwan, PhD
President & Exec. Chairman

Co-Founder
Led Uplisting to NYSE-American Exchange in 2013
Raised $65M
Co-Inventor of Nanoviricides® & of TheraCour®
25+ years Leadership & Entrepreneurial experience
Key Patents, Several NIH SBIR Awards
PhD (Biochem Eng - Rice), BTech (ChemEng - IITB)

Randall W. Barton, PhD
CSO and Acting CRO

30+ Years of Pharmaceutical Industry Experience in Drug Discovery and Pre-clinical Regulatory Development
Former Director of In-Vitro Cardiovascular Research at Boehringer Ingelheim
Nevirapine (Viramune™) Development
Visiting Faculty at the University of Connecticut Medical School, Farmington, CT

Meeta R. Vyas, MBA
CFO

30+ years Experience in Corporate Performance Improvement, Finance, M&A, EBITDA Growth...
Previously: Principal, The Gores Group; Director, Kamylon Capital; CEO, Signature Brands, Inc. (a public company, known for “Mr. Coffee”); Ran $1B GE Appliances Division;
Consultant, McKinsey & Company
MBA (Fin.) Columbia, BS (ChemEng) MIT

Jayant Tatake, PhD
VP, R&D

30+ Years of Pharmaceutical Industry Experience in Drug Discovery, Manufacturing, QA/QC, CRO
Synthesis, Scale-up, Formulations, and Pharmaceutical cGMP Expertise
Former Asst. Director, Pharma. Analytics, InterPharm, Inc.
Co-Inventor of Nanoviricides® & TheraCour®
PhD UICT, Bombay
Board of Directors

**Anil R. Diwan, PhD**
President & Exec. Chairman

Co-Founder, Led Uplisting to NYSE-Amer. in 2013, Raised $65M+, Co-Inventor of Nanoviricides® & of TheraCour®
25+ years Leadership & Entrepreneurial experience

Not an Independent Board Member
Director and Chairman Since Founding in 2005

**Stanley Glick, CPA ✔**
Chairman, Audit Committee

Auditing, Accounting, Tax, & Mgmt. Advisory Services
Financial Management Oversight, Civic Leader

Independent Board Member and
Chair of Audit Committee since June 2012

**Mak Jawadekar, PhD ✔**

35+ Years of Pharmaceutical Industry Experience, Pharma Strategic Consultant. Previously at Pfizer, Inc., as Director, Portfolio Management & Analytics, and as Vice President, Asia Colleague Resource Group, in Pfizer Global R&D. Business and Research experience in joint ventures, alliance management, contracting, pharma R&D, drug delivery, clinical supply manufacture, etc. Global experience working with United States, Europe, India, Japan, China.

Independent Board Member since February, 2020

**Mark Day, PhD ✔**


Independent Board Member since June, 2019

✔ = Independent Board Member
Recap

“Resistance is Futile” - Antiviral Nanomachines Designed to Destroy Viruses Despite Viral Mutations

Broad and Deep Pipeline based on Platform Technology

In-house cGMP Manufacture Enabling Early Commercial Revenues On Its Own

Major Regulatory Progress and Milestones to Occur Throughout Next Several Years

Starting with Upcoming IND for NV-HHV-101 Shingles Rash

Human Skin Pre-clinical Studies De-risk Clinical Development

Strong Asset Position

Expert team

Valuation
The End