"Bind-Engulf-Destroy"

NanoViricides Incorporated

Stock Symbol:
NNVC
(NYSE American)

# NV-387, A Broad-Spectrum Antiviral Presenting A Revolutionary Strategy for Viral Infections -

## Emperic Treatment with NV-387 is Possible
## Just Like Emperic Treatment of Bacterial Infections Became Possible with Penicillin

Anil R. Diwan, PhD, President & Exec. Chairman
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Presented at the
NanoViricides Annual Meeting of Shareholders
November 8, 2025, 10am
Held at:
Hampton Inn Stamford
26 Mill River Road, Stamford, CT

# Disclosure Statement

NanoViricides, Inc. is a NYSE-American listed publicly traded company (stock symbol: NNVC).

This is not an offering memorandum and should not be construed as such. It is provided as a non-confidential document for informational purposes only.

NanoViricides, Inc.(www.nanoviricides.com) is a clinical 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 Coronaviruses, 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's technology is based on broad, exclusive, sub-licensable, perpetual field licenses to all drugs developed in the licensed field areas (virus indications) from TheraCour Pharma, Inc. The Company obtains additional licenses after determining that it intends to pursue a drug candidate in the licensed field into commercialization. The Company's business model is based on licensing technology from TheraCour Pharma Inc. for specific application verticals of specific viruses, covering all drugs for the licensed application, as established at its foundation in 2005.

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 Securities18 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.

# About NanoViricides, Inc.

- Founded in USA with Inventors and Inventions in USA
- Clinical Stage Pharma Company with Unique Nanomedicines Technology
- NV-387 Successfully Completed Phase I in Healthy Subjects in India
  - Moving to Phase II in DRC to Treat MPox
- Fully USA-Based On-Shore cGMP Manufacturing of Drug Substances and Drug Products
- Public Company, Listed on NYSE-Amer. since 2013 (Stock Symbol NNVC), Founded in 2005
- Self-Sufficient Through Clinical Drug Product Supply
- Animal Studies and cGLP Non-Clinical Studies Outsourced (USA Labs)
- Raised Over $170 Million Since Inception - Equity Based. No External Debt.

# Strong Executive Team

## Anil R. Diwan, PhD
President & Exec. Chairman
Co-Founder

Led Uplisting to NYSE-Amer. in 2013
Raised Over $120M
Co-Inventor of Nanoviricides & of TheraCour Platforms.
25+ years Leadership & Entrepreneurial experience. Key Patents, Several NIH SBIR Awards
PhD (Rice), BTech (IITB)
Ranked 9th All India on JEE to IITs

## Krishna Menon,
VMD,MRCS,PhD
Consulting Medical Officer

30+ Years of Pharmaceutical Industry
Drug Discovery & Pre-clinical
Regulatory Development
Eli Lilly President's Award

AZT, GemCitabine, Pemetrexed (Alimta) Development
Eli-Lilly, Dana-Farber, Beth-Israel, Bayer Alumnus

## Meeta R. Vyas, MBA
CFO

30+ years Experience in Corporate Performance Improvement, Finance, M&A, EBITDA Growth…
Principal, The Gores Group;
CEO, Signature Brands, Inc. : Mr. Coffee;
Ran $1B GE Appliances Division;
Consultant, McKinsey & Company

MBA (Finance, Columbia U), BS (MIT)

## Jayant Tatake, PhD
VP, R&D

30+ Years of Pharmaceutical Industry Experience in Drug Discovery, cGMP Manufacturing, cGLP QA/QC, CRO, Synthesis, Scale-up, Formulations.
Former QA Asst. Director, InterPharm, Inc.
Co-Inventor of Nanoviricides & TheraCour Platforms

PhD, UICT, Mumbai, India

# Independent Board of Directors

## 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**

## Hon. Theodore "Todd" Rokita, JD

Presently Attorney General, State of Indiana. Former US Rep. from Indiana (4 terms since 2010). Served on several House Committees. Co-owner, Apex Benefits Group, Inc. Extensive executive, team-building, business strategy, and fiscal management expertise in the private sector, alongside his public service leadership experience. Serves or has served as a Member of the Board of Directors of several commercial and charitable institutions.

**Independent Board Member since May, 2020**

## Brian M. Zucker, CPA

30+ years of experience as a CPA specializing in the securities industry. A Partner at CFO Financial Partners, LLC (https://www.cfopartners.com/). Also serves as the CFO and Financial Operations Principal for numerous broker dealers and hedge funds. Partner at RRBB Accountants & Advisors. CFO of EIG Energy Partners Capital Markets, LLC. Ex-Senior Consultant at Deloitte Haskins & Sells and at Price Waterhouse. Mr. Zucker holds several FINRA licenses.

**Independent Board Member since November, 2020**

# NanoViricides Drugs Pipeline - Sustained Commerical Product Development with Benefits for Orphan/Rare Diseases and Pandemic Preparedness Programs

| | Drug Substance | Indication | Lead Id. | Animal Eficacy | IND-Enabling Studies | Phase I | Phase II | Phase III |
|---|---|---|---|---|---|---|---|---|
| 1 | NV-387 | MPox | | | | India | CTA-DRC | |
| 2 | | Smallpox (AOI# 2.3) | | | | FDA-ODD, Pre-IND | "Animal Rule" | |
| 4 | | Filoviruses (AOI# 2.4) | | | | FDA-ODD, Pre-IND | "Animal Rule" | |
| 5 | | Measles | | | | FDA-ODD, Pre-IND | Orphan/Rare | |
| 6 | NV-387 (Commercial Applications) | ARI/SARI | | | | | CTA- India | |
| 7 | | Influenza (AOI# 9.1) | | | | FDA Pre-IND | | |
| 8 | | COVID | | | | | ARI Ph II | |
| 9 | | RSV | | | | | ARI Ph II | |
| 10 | NV-HHV-1 (Skin Cream) | Shingles (VZV) | | | | FDA IND | | |
| 11 | | Cold Sores (HSV-1) | | | | | | |
| 12 | | Genital Ulcers (HSV-2) | | | | | | |
| 13 | NV-HIV-1 | HIV/AIDS | | | | | | |
| 14 | NV-387-g-X | DNA Viruses | | | | | | |
| 15 | NV-387-g-Y | RNA Viruses | | | | | | |
| > | Several Additional R&D Programs in Progress | | | | | | | |

* #14 and #15 are Advanced Development Programs to Develop Cures for Most DNA and RNA Viral Infections, respectively.

X and Y are Proprietary, Patentable Chemicals Designed to Block the Replication Part of the Lifecycle of the Virus, While NV-387 Itself Is Designed to Block the Re-Infection Part of the Virus Lifecycle. Thus the Drugs NV-387-g-X and NV-387-g-Y Would Block the Complete Virus Lifecycle of DNA and RNA Viruses Respectively.
"g" Refers to Encapsulation of the Guest (X or Y) Within the NV-387 Nanomicelles.

Introducing NV-387

# Value Proposition of NV-387-Broad-Spectrum Antiviral

## Emperic Therapy of Viral Infections Made Feasible

- NV-387, An SPG-Mimetic Nanoviricide is Designed to Work Against -
- Over 90% of Human Pathogens, Known and Unknown
- > 90% Human Pathogenic Viruses Use HSPG (Heparan-Sulfate Proteoglycan)
- Human-to-Human Transmission Enhancement is Associated with Virus's HSPG Usage Effectiveness
- >99% Viruses Use One or More of: Sulfated Proteoglycans, Sialylated Glycoproteins, Integrins, HyperMannose Receptors (Lectins)
- Enable Initial Response to Novel Pandemics (Disease X?) in <30 day Window!

## Some NV-387 Target Product Characteristics
## TRL 5+ : Phase I Healthy Subjects Completed Successfully

- Oral: NV-387 Oral Gummies, Blister-Packed
- Low Cost Solution: COGS Low, No Biologics
- RT Storage and Distribution > 2 Yrs Stability
- Ease of Administration - Dissolves in Mouth; No Water, No Swallowing!
- Simple Self-Dosing 1x Daily or 2x Daily
- Safe and Well Tolerated (Phase I) Means Minimal Medical Burden
- No Safety Signals - No Monitoring Required

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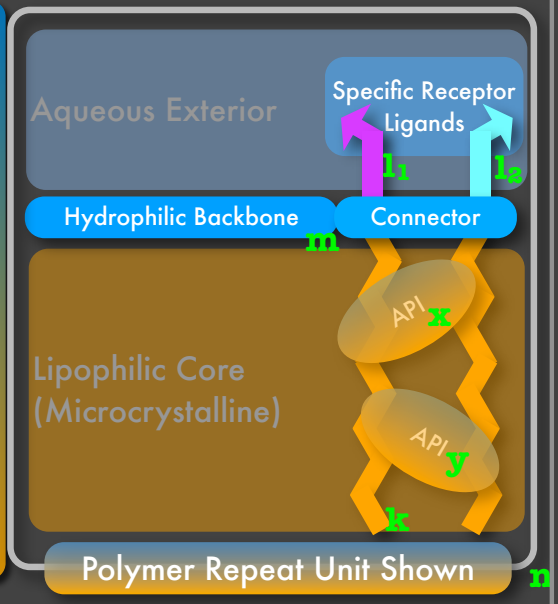
- Short Term Prophylactic Available: Nasal Spray, I.M. Injection, I.P. Injection
- Available: (Hospitalized) I.V. Infusion, Inhalation (nebulizer) for Deep Lung

# NanoViricides Platform Technology => Novel Antiviral Mechanism of Action

## Schematic Structure

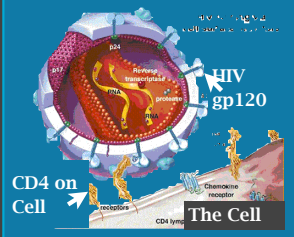
- Nanoviricide Homopolymer
- PEG based- RES protection
- Lipid pendants- **Shape-shift**
- Biomimetic
- **Addressing - Antivirals that Mimic Cell-Side Sites**
- Nano-scale "Velcro" Effect
- **Lipid Fusion**
- **Encapsulation**



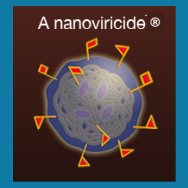

- A nanoviricide Binds the Virus Particle at Multiple Points, "NanoVelcro" Effect (Stages #1,2,3)
- Engulfment of the Virus Particle by "Shape-shifting" Nanoviricide Micelle would Render the Virus Particle Incapable of Infecting Cell (stage #4)

## Cell-Mimicking Nanomachines that Seek to Bind, Engulf and Destroy a Virus Particle Without Immune System Assistance

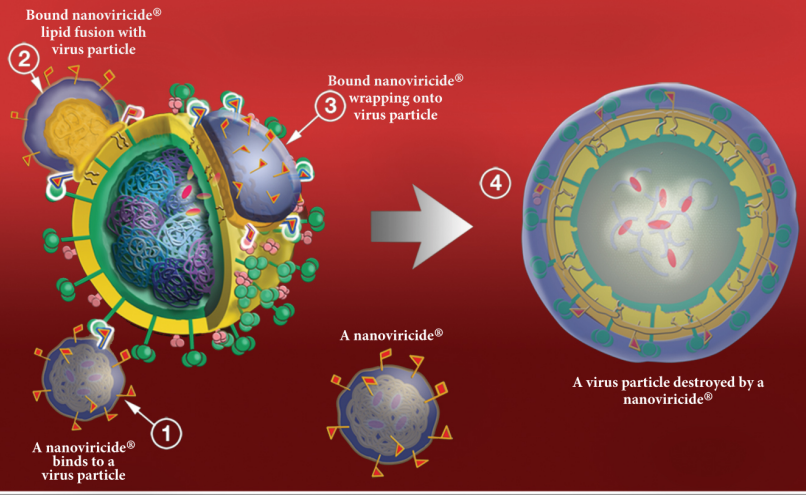
### A Virus Uses Specific Cellular Receptor(s). Viral Coat Protein Mutates Readily;




### But Binds to the Same Site(s) on Its Cellular Receptor(s).



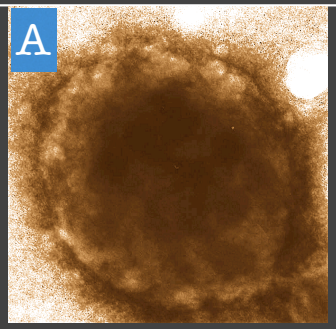

### Attacking the Virus Using Its Own, Conserved, Cell-Binding Features: Multi-point, Multi-targeted Therapeutics

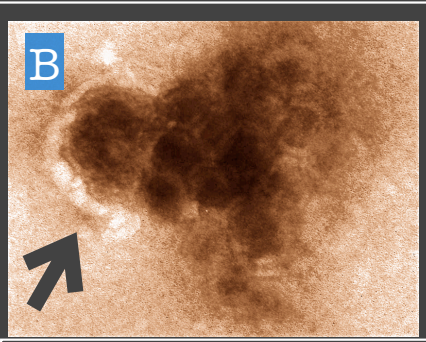


# POC Mechanism: NV-387 Mechanism is Supported by Different Types of Studies

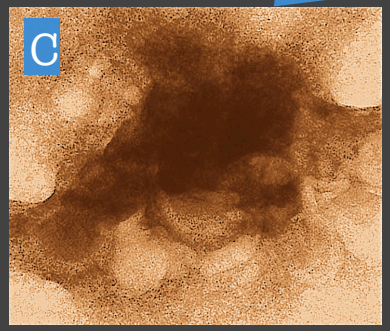
## 1. A Nanoviricide's Interaction with a Virus Particle in TEM Demonstrates Lipid-Lipid Mixing & Virus Disruption

A. Murine CMV Particle has Multiple Capsids in its Lipid Coat



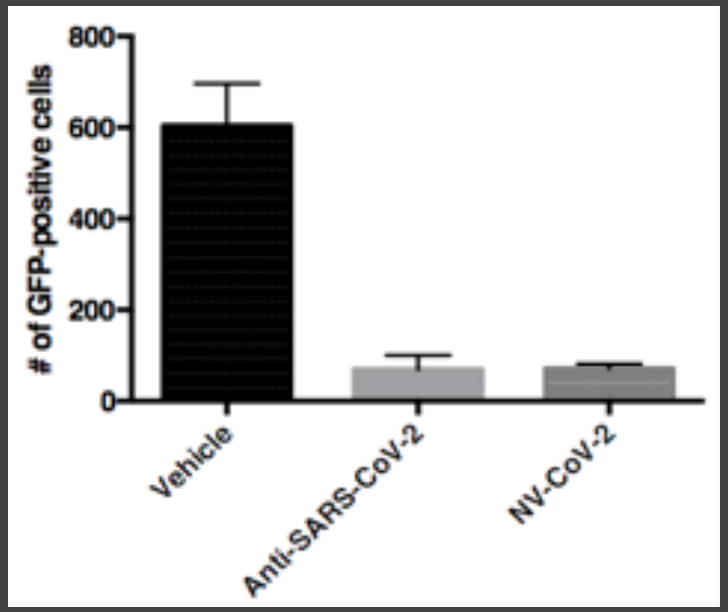




B. Lipid Mixing Observed (Unstained, arrow) Upon Mixing Virus with a nanoviricide




C. Free Viral Capsids Resulted in the End

## 2. NV-387 Blocks SARS-CoV-2-Pseudovirion Entry into Human Lung Epithelial Cells, Similar to an Anti-SARS-CoV-2 Antibody



# POC In Vivo Broad-Spectrum Activity: NV-387 Is Effective in Lethal Animal Models and is Superior/Equivalent to Existing Drugs w No Toxicity Against a Diverse Family of Viruses

| Virus Family | Animal Model | Survival | Survival Improvement | % Survival Improvement |
|---|---|---|---|---|
| Orthopox Viruses; Ectromelia | SCID-Balb-c Lethal Lung Infection | NV-387, PO = 14 Days<br>NV-387-m-T, PO = 18 Days<br>Tecovirimat, PO = 15 Days<br>Vehicle, PO = 7 Days | NV-387, PO = 7 Days<br>NV-387-m-T, PO = 11 Days<br>Tecovirimat, PO = 8 Days | NV-387, PO = 100%<br>NV-387-m-T, PO = 157%<br>Tecovirimat = 114% |
| Orthopox Viruses; Ectromelia | SCID-Balb-c Lethal Dermal-Scored Infection | NV-387, PO = 14 Days<br>NV-387-m-T, PO = 17 Days<br>Tecovirimat, PO = 14 Days<br>Vehicle, PO = 8 Days | NV-387, PO = 6 Days<br>NV-387-m-T, PO = 9 Days<br>Tecovirimat, PO = 6 Days | NV-387, PO = 75%<br>NV-387-m-T, PO = 112%<br>Tecovirimat = 75% |
| Influenzas; H3N2 (A/ California/ 2/2014) | Balb-c Mice Lethal Lung Infection | NV-387, IV = 16 Days<br>NV-387, PO = 15 Days<br>Peramivir, IV = 11 Days<br>Oseltamivir, PO = 11 Days<br>Baloxavir, PO = 11 Days<br>Vehicle, IV; Vehicle, PO = 8 Day | NV-387, IV = 8 Days<br>NV-387, PO = 7 Days<br>Peramivir, IV = 3 Days<br>Oseltamivir, PO = 3 Days<br>Baloxavir, PO = 3 Days | NV-387, IV = 100%<br>NV-387, PO = 88%<br>Oseltamivir, PO = 38%<br>Peramivir, IV = 38%<br>& Baloxavir, PO = 38% |
| Measles Virus; Measles MD-US | hSLAM+ki/Ifn-/- Mice Lethal Lung Infection | NV-387, PO = 17 Days<br>Ribavirin, PO = 15 Days<br>Vehicle = 7.5 Days | NV-387, PO = 17 Days<br>Ribavirin, PO = 15 Days | NV-387, PO = 226%<br>RIbavirin = 200% (Toxic) |
| Corona-viruses; hCoV-NL-63 (SARS-CoV-2 Surrogate) | Rat Lethal Lung Infection | NV-387, IV = 14 Days<br>NV-387, PO = 8.4 Days<br>Remdesivir/SBECD, IV = 7 Days<br>Vehicle, IV = 5 Days | NV-387, IV = 9 Days<br>NV-387, PO = 3.4 Days<br>Remdesivir/SBECD, IV = 2 Days | NV-387, IV = 180%<br>NV-387, PO = 68%<br>Remdesivir/SBECD = 40% |
| RSV<br>RSV, A2 | Balb-c Mice Lethal Lung Infection | NV-387, PO : Full Survival<br>Ribavirin, PO = 13.8 Days<br>Vehicle, PO = 7 Days | NV-387, PO : Full Survival<br>Ribavirin, PO = 6.8 Days | NV-387, PO Led to Full Survival<br>Ribavirin = 97% (Toxic) |
| * Notes: | * NV-387-m-T: NV-387-mixed-in-Tecovirimat formulation improved effect over each dosed separately. Orthogonality. | | | |

# POC In Vivo Broad-Spectrum: NV-387 Effective Treatment for Measles - Lung Protection

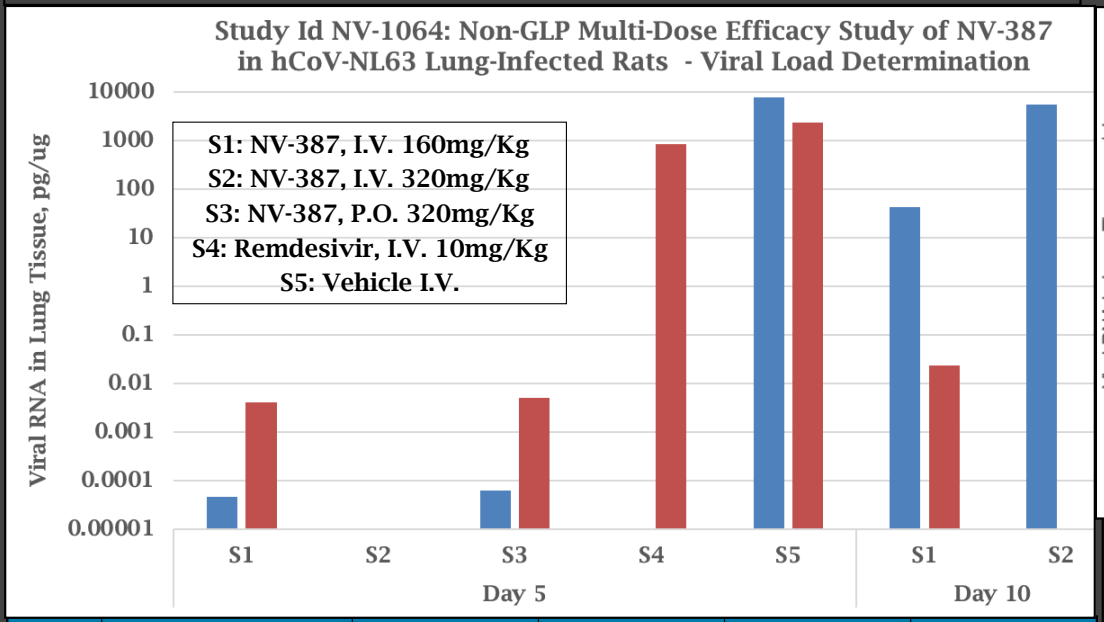
| Grp | Study Id: AE2601 Test Article and Dose Strength | Survival, Days | | % Increase in Survival | | Key Observations | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | M | F | M | F | Lung Infection Histology | Lung Viral Plaques | Cytokine Levels: IL4, IL9, IL10 | Overall Efficacy |
| 1 | NV-387, High | 16.6 | 17.2 | 127% | 136% | Very Mild to Mild | Low | Moderate | Best |
| 2 | NV-387, Medium | 13.1 | 12.8 | 79% | 75% | Mild to Moderate | Low | Moderate | Effective |
| 3 | Ribavirin,123mgKg | 14.8 | 14.7 | 103% | 101% | Mild to Severe | Moderate | Moderate | Moderate |
| 4 | Vehicle, 0 mg/Kg | 7.4 | 7.5 | 1.4% | 2.7% | Moderate; early death | High | Not available | Ineffective |
| 5 | Infected Untreated | 7.3 | 7.3 | - | - | Moderate; early death | High | Elevated | <Untreated> |
| 6 | Naïve | Survived Throughout | | | | Normal | N/A | Baseline | N/A |

- NV-387 is clearly the most effective treatment for Measles, improving survival, body weight recovery, and reducing lung viral plaques and cytokine dysregulation.
- Well tolerated. No safety signals. NV-387 High Dose would correspond to 60mg/kg BID in humans.
- NV-387 shows dose-dependent efficacy.
- Ribavirin provides moderate benefit but is less effective than NV-387, and has known toxicity concerns.
- Measles is Epidemiologically relevant to Smallpox and MPox - Difficult to Distinguish Rash.

COVID

# POC: In Vivo Broad-Spectrum - NV-387 Treatment Caused Significant Viral Load Reduction (2-3 Logs) in Animal Models

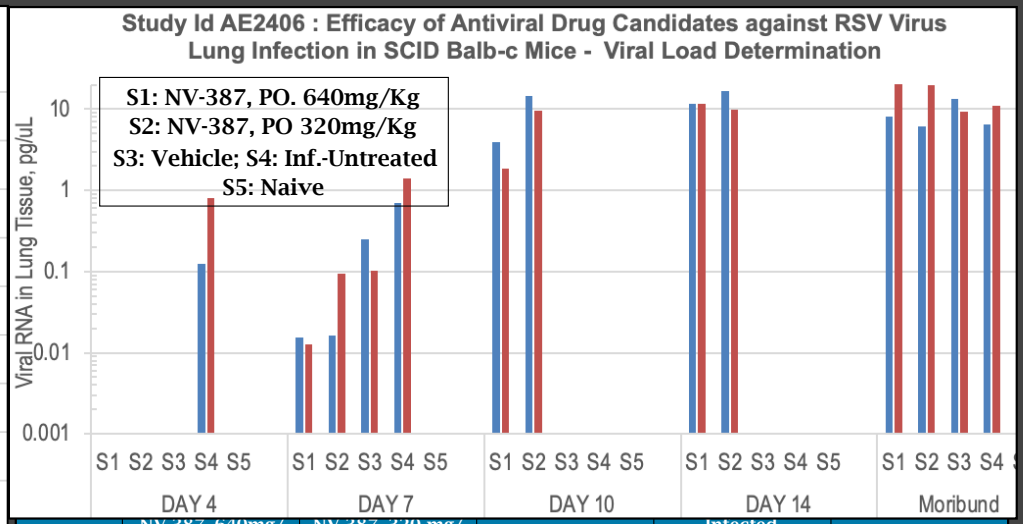
## hCoV NL63: NV-387 Decreased Lung Viral Load >3 Logs vs. Vehicle, Day 5.




| Lung RNA, pg/ug | NV-387,I.V. 160 mg/Kg | | NV-387, I.V. 320 mg/Kg | | NV-387, PO 320 mg/Kg | | Remdesivir, I.V. 10mg/Kg | | Vehicle I.V. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | S1 | | S2 | | S3 | | S4 | | S5 | |
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| DAY 5 | 0.000046 | 0.003980 | BLOD | BLOD | 0.000063 | 0.004980 | BLOD | 820 | 7700 | 2291 |
| DAY 10 | 42 | 0.023 | 5500 | BLOD | | | | | | |

**Dosing Protocol:**
NV-387, I.V. and P.O. : 1X on D1, D2, D4, D6, D8 (5 Doses).
Remdesivir, I.V. : 2X on D1, then 1X Daily D2-D8 (9 Doses).

## RSV: NV-387 P.O. Decreased Lung Viral Load >2 Logs vs. Untreated, Day 7.

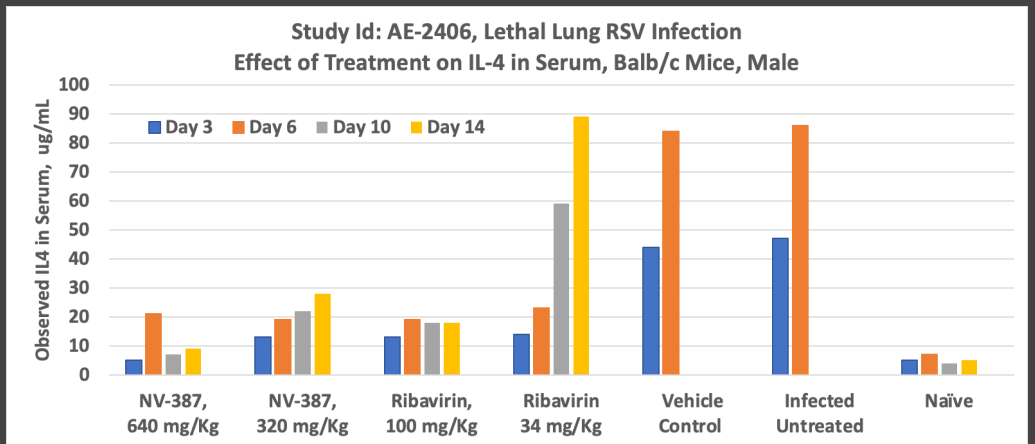


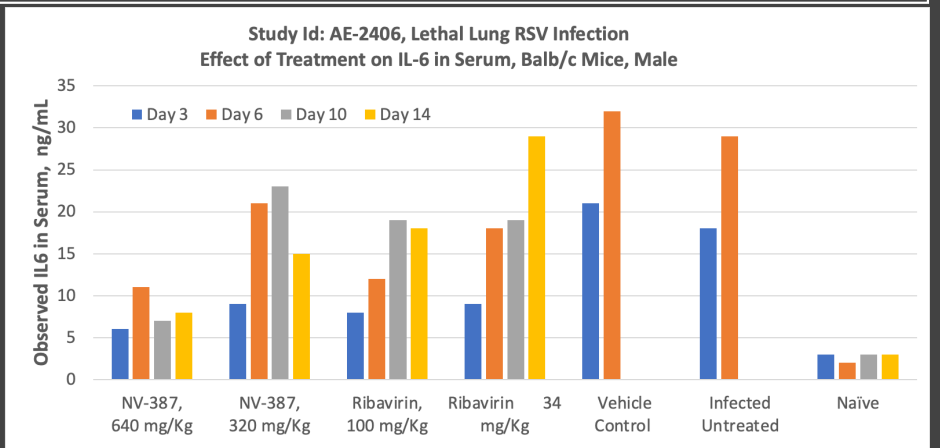

| Viral Load, pg/uL | NV-387, 640mg/ Kg | | NV-387, 320 mg/ Kg | | Vehicle-0mg/Kg | | Infected Untreated | | Naïve | |
|---|---|---|---|---|---|---|---|---|---|---|
| | S1 | | S2 | | S3 | | S4 | | S5 | |
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| DAY 4 | BLOD | BLOD | BLOD | BLOD | 0.00 | BLOD | 0.12 | 0.81 | BLOD | BLOD |
| DAY 7 | 0.02 | 0.01 | 0.02 | 0.09 | 0.25 | 0.10 | 0.70 | 1.40 | BLOD | BLOD |
| DAY 10 | 3.94 | 1.83 | 14.34 | 9.50 | | | | | BLOD | BLOD |
| DAY 14 | 11.63 | 11.65 | 16.88 | 9.88 | | | | | BLOD | BLOD |
| Moribund | 8.11 | 20.09 | 6.14 | 19.86 | 13.53 | 9.33 | 6.43 | 10.98 | BLOD | BLOD |
| Days at Moribund | 21 | | 20.4 | | 7.1 | | 6.9 | | Survived | |

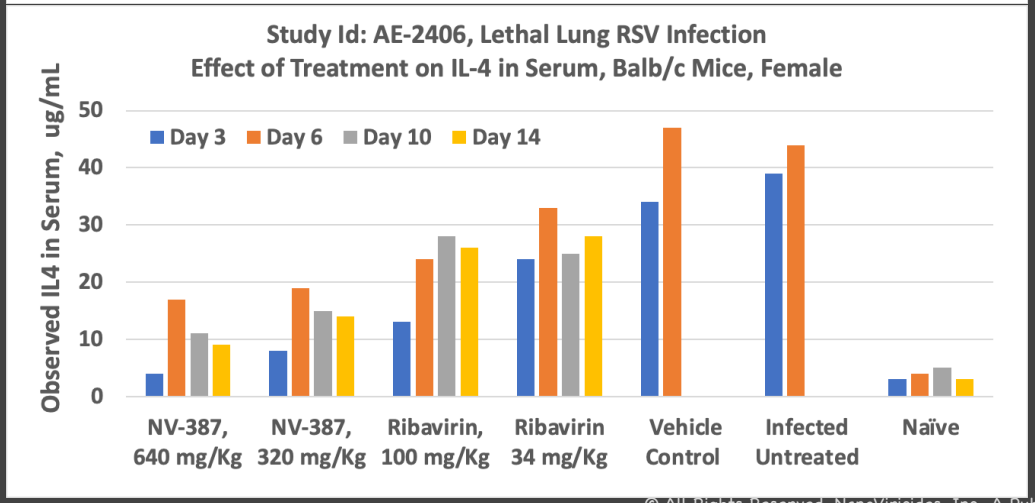
**Dosing Protocol: 2X on D1, then 1X Daily D2-10 (11 Doses).**

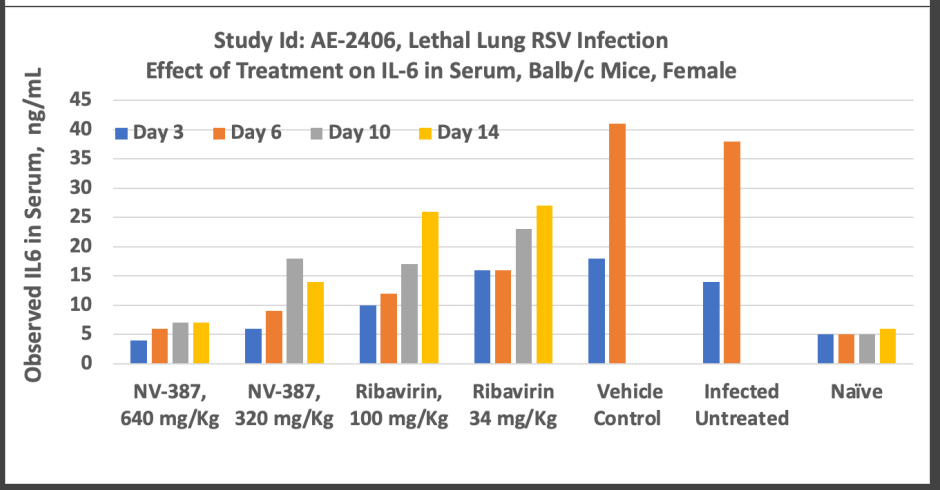
# ARDS: Host-Side Effect of NV-387 on Inflammatory Cytokines is Beneficial

## RSV: NV-387 Decreased Inflammatory Cytokines IL-4 and IL-6 by a factor of 4X in BAL



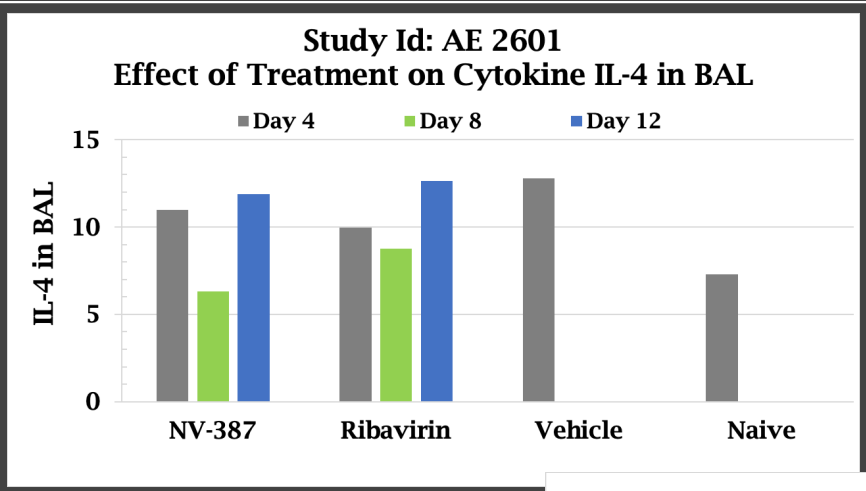



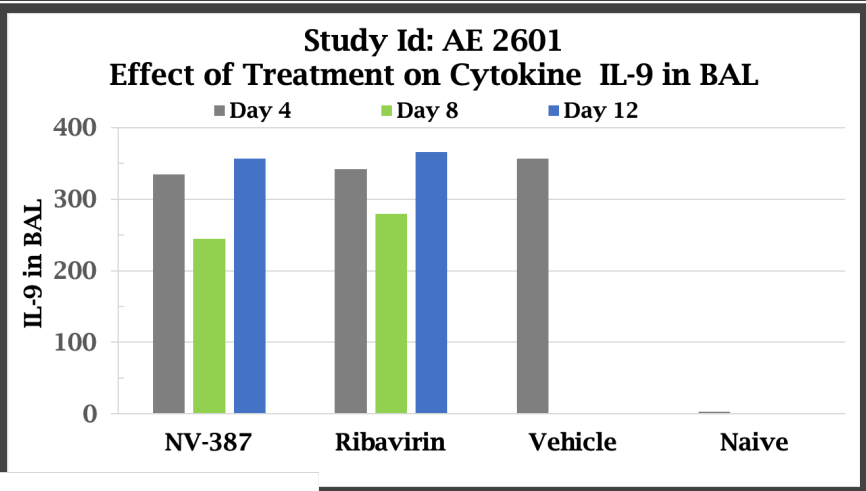



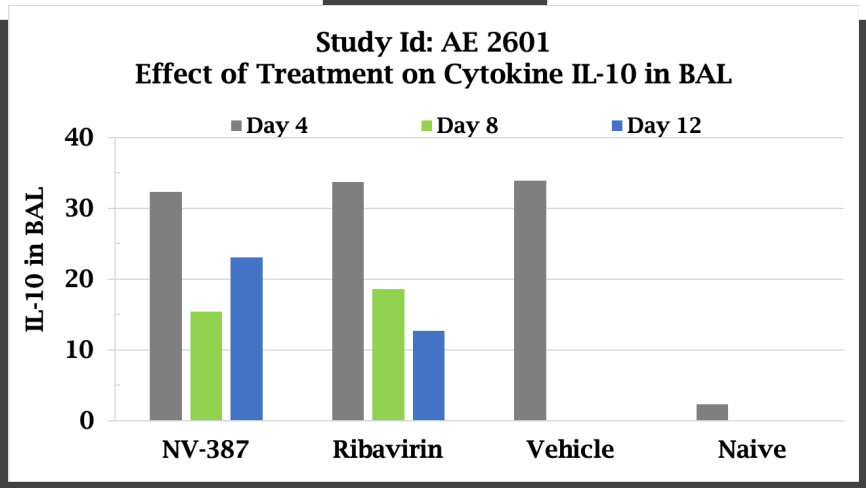



# ARDS: Host-Side Effect of NV-387 on Inflammatory Cytokines is Beneficial

## Measles: NV-387 Decreased Inflammatory Cytokines IL-4, IL-9 and IL-10 by a factor of 2X in BAL



# NanoViricides Regulatory Developments

## NV-387 Clinical Progress

- Non-Clinical Studies Completed
- GMP Manufacture of Drug Substance Implemented
- GMP Manufacture of Drug Product Implemented
  - CMC In-Process-Controls and Critical Quality Attributes Identified and Implemented
  - Characterization of Drug Substance and Drug Product, Impurities Determination, Assays - Completed
- Phase I in Healthy Subjects Completed in India
  - No Dropouts, No reported AE's/SAE's
  - Blood Chemistry, Target Organ Assays, Clinical Obs. - No Signals
  - CSR Submission Expected ca. November, 2025
- Phase II in MPox Patients in DRC Planned
  - CTA Filing Expected ca. November, 2025
  - Initial Approval pre-Submission Obtained, May 2025

**Ready to Engage US FDA for IND.**

## Prior US FDA Engagements

- **Two pre-IND Meetings on Two Separate Projects**
- In 2012-02, for NV-INF-1, an I.V. formulation of a Sialomimetic nanoviricide for Influenza Treatment.
  - FDA held an exploratory meeting (PIND 114079). We had only animal efficacy data, no Non-clinical package, and only minimal CMC information.
  - In-person consultation; FDA provided valuable feedback. Needed extensive testing against a large number of INFV strains in vitro as well as in vivo. The Company did not have such capabilities.
- In 2019-07, for NV-HHV-1 as a Skin Cream of an HVEM-Mimetic nanoviricide to Treat Shingles (VZV) Rash (PIND 143637).
  - A written response was received. Our Non-clinical package was deemed generally acceptable. FDA provided further guidance and asked for the next pre-IND meeting to be with IND-ready document.

- **US FDA PLANNED: ODD, Pre-IND, IND for 2025-2026**
  - Smallpox (Bio-threat),
  - MPox (Endemic),
  - Measles (Emerging), Others

# NanoViricides Technology Has Significant Advantages Over Current MCM Technologies

| | NV-387 | Antibodies | Other Drugs | Vaccines |
|---|---|---|---|---|
| Mechanism | Re-Infection Inhibition | Neutralization | Replication Inhibition | Antibodies Generation |
| Therapeutic Post-Infection? | Yes | Yes | Yes | No |
| Viral Resistance? | Unlikely | Rapidly | Eventually | Rapidly |
| Cure Non-Latency Viruses? | Yes | No | No/Maybe (Combo.) | No |
| Broad Spectrum? | Yes | No | No/Maybe | No |
| Immune-Compromised Patients? | Yes | No /Maybe | Yes | No |
| Applicable to All of Patient Population? | Yes | No /Maybe | Maybe | No |
| Oral Dosing? | Yes | No | Yes/ Maybe | No/ Maybe |
| Does Not Require Infusion? | Yes | No | Yes | Yes |
| Infrequent Dosing? | Yes | No | No | Yes |
| Easy Compliance? | Yes | No | No | No (Social Factors) |
| No or Minimal Side Effects? | Yes | No | No | No (Large Populations) |
| **Safety** (Allergy, Mutagen, Immunogen, Genotox) | Yes | No (Immune Reactions) | No (Mutagenic, Other SAEs) | No (Immune Reactions, Allergy) |

# Value Proposition: NanoViricides Technology Offers the Best Feature Matrix

| | NV-387 | Antibodies | Other Drugs | Vaccines |
|---|---|---|---|---|
| Mechanism | Re-Infection Inhibition | Neutralization | Replication Inhibition | Antibodies Generation |
| Storage & Supply Chain | RT ~ 1-2 Years Long term: 2-8˚C | 2-8˚C | RT / 2-8˚C | -20˚C |
| Cost of Drug | Low | Moderate to High | Low to Moderate | Moderate |
| Total Cost of Deployment | Low | Very High | Moderate | Very High |
| Encapsulation - Improve PK of Formulation w. Orthogonal Agents | Yes | No | No | No |
| Post-Infection Treatment | Oral Gummies - No Swallow, I.V. Injection, I.V. Infusion, Lung Inhalation, | Injecables; I.V. Infusion | Oral-Cap/Tab Difficult-to-Swallow, Oral Syrups, I.V. Infusion, I.V. Injection | Mostly Injections, Some Oral, Nasal Possible |
| Short-Term Prophylaxis | Nasal Spray (Daily), I.M. Injection (Weekly or Less) | Injecables; I.V. Infusion | Maybe | Longer Term Protection |
| Unmonitored Self-Dosing | Yes | No | No /Maybe | No |
| ROI to BARDA | Single Drug for Multiple Target Objectives, incl. Disease X | One Bug - Many Drugs- Cocktail, Repeat Development | Limited Spectrum or Limited to Single Virus | One Bug - Many Drugs- Cocktail, Repeat Development |

Intro. NV-387 for Smallpox

# NV-387 for Smallpox Therapeutics

## NV-387 P.O. is Effective in Ectromelia- SCID-Balb c Mouse - Lethal Infection

- Dermal Infection Model, emulate endemic MPox II, Also Smallpox Bioevent
  - NV-387 at Least Equivalent to Tecovirimat
- Nasal-Lung Infection (emulate Aerosolic Smallpox Bioevent)
  - NV-387 at Least Equivalent to Tecovirimat

## Non-Clinical Toxicology, Safety and PK Indicate NV-387 is Well-Tolerated

- I.V. NOAEL 1,200mg/kg; MTD 1,500 mg/kg in SD Rats
- Non-Immunogenic; Allergenicity Not Warranted
- Non-Mutagenic - GLP AMES
- Non-Genotoxic - GLP MNT +S9, -S9
- GLP Cardiotoxicity - Safe - Cynomolgus Monkey
- GLP Neuro-Pulmonary - Safe - Rats
- I.V. PK - Sustained Plateau to ~24h in Primates @ 25 - 100 mg/Kg

## Phase I Clinical : Safety and PK Indicate NV-387 is Well-Tolerated

- **No Safety Signals**
- **Human Oral PK Up to 80mg/Kg: Sustained Plateau to : ~8+h; then Steady Decline to 24hrs, Multiphasic** (Data not shown)
- **1x Daily or 2x Daily Oral Self-Dosing Feasible**

## Target Product Profile

- **NV-387 Oral Gummies (OG)**
- **Suitable for All Populations - Age, co-Morbidities, Immune Status**
- **No Swallowing - Self Dissolving**
- **Easy & Nimble Storage, Distribution, Administration**
  - OG: Room temperature Stable > 2 years; 2-5˚C Fully Stable
  - Blister-Pack, 0.5, 1.0 & 1.5g strengths x 6 per Pack
  - 1x Daily or 2x Daily Dose

- **Virus Escape from NV-387 Unlikely**
- **Viral Load Reduction 3+ Logs**
- **Host-Directed Effects Beneficial - Inflammatory Cytokine Reduction Observed (ARDS/Cytokine Storm)**
- **Mechanism Orthogonal to Known Smallpox Agents**
- **Drug Combo Improves Efficacy**

NV-387 for Smallpox

# Why NV-387 for Smallpox? Currently Approved Smallpox Drugs Fall Short

| Drug | Tecovirimat | Brincidofovir | NV-387 |
|---|---|---|---|
| Mechanism | Eggress Inhibition | DNA Polymerase Inhibitor | Re-Infection Inhibition; Orthogonal |
| Resistance | YES, Single-point mutation in VP-37 | Higher Bar. But Resistance known for its Active form, Cidofovir. | Unlikely (SPG Mimetic Broad Spectrum) |
| Ease of Administration | Capsule; Infusion | Oral Tablets | Semi-Soft Gummies. No Swallowing |
| Adverse Events | Some AEs. Possibly Allergenic. | Black-Box Warning. Hepatic Toxicity, SAEs. Gastro-Intestinal AEs., Infertility, Embryofetal Toxicity, Teratogenic. Carcinogenic. | No SAEs. No Reportable AEs. Non-Immunogenic, No Allergenicity, Non-Mutagenic, Non-genotoxic |
| Side Effects w Discontinuation | YES (2%) | YES (5%) | NO |
| Patients Eligibility | Substantial | Very Limited | All Population Eligible. |
| Treatment Monitoring | Generally not required | Required. Hepatic Labs. Also GI. | Not Required. |
| Varilola Infection Tested in Animal Rule? | No. | No. | - |
| MPox Infection Tested in Animal Rule? | Yes. | No. | To Do. |
| MPox Clinical Trial | Failed to Show Efficacy. | Early 3/3 Hepatic SAEs & No Efficacy. MOSA Phase IIa Cohort Completed, No Data. MOSA Started. Status Unknown. | Phase II Proposed. |

NV-387 OrthopoxV, Dermal Infection

# NV-387, PO Improved Survival Equivalent to Tecovirimat, in Lethal Footpad Intra-digital Ectromelia Infection in SCID Balbc Mouse Model

## Study Id AE2301: Survival Data - All Oral

| Grp | Test Article, Dose Strength | Survival, Days | | % Increase in Survival | | Key Observations |
|---|---|---|---|---|---|---|
| | | M | F | M | F | |
| A | NV-387-m-T, 200+100 mg/Kg | 17 | 17 | 112% | 112% | Maximal Survival Improvement; Slowed Disease Progression |
| B | NV-387-m-T, 100+50 mg/Kg | 14 | 14 | 75% | 75% | Improved Survival; Moderate Disease Progression |
| C | NV-387, 200 mg/Kg | 14 | 14 | 75% | 75% | Moderate Disease Progression; Similar to Grp E (Teco.), & Grp B (NV-387-m-T, low) |
| D | NV-387, 100 mg/Kg | 12 | 13 | 50% | 63% | Moderate Survival Improvement; Moderate Disease Progression |
| E | Tecovirimat, 100 mg/Kg | 14 | 15 | 75% | 87% | Moderate Survival Improvement; Moderate Disease Progression |
| F | Tecovirimat, 50 mg/Kg | 10 | 14 | 25% | 75% | Moderate Survival Improvement; Possibly low infection uptake artifact in females |
| G | Vehicle, 0 mg/Kg | 8 | 8 | 0% | 0% | Same as Infected Untreated; Rapid Disease Progression; Systemic Infection |
| H | Infected Untreated | 8 | 8 | - | - | Rapid Disease Progression; Systemic Infection |
| I | Naïve | Survived Study | | | | Uninfected, Untreated |

NV-387 OrthopoxV, Aerosolic Infection

# NV-387, PO Improved Survival Equivalent to Tecovirimat, in Lethal Intra-Nasal Ectromelia Virus Infection in SCID Balb-c Mice Causing Lung Disease

## Study Id AE2303: Survival Data - All Oral

| Grp | Test Article, Dose Strength | Survival, Days | | % Increase in Survival | | Key Observations |
|---|---|---|---|---|---|---|
| | | M | F | M | F | |
| D | NV-387-m-T, 400+100 mg/Kg | 18 | 18 | 157% | 157% | Lungs Normal - Days 4-8; Mild infection by Day10; Severe on D18. Maximal Survival Improvement; Slowed Disease Progression |
| C | NV-387-m-T, 200+50 mg/Kg | 15 | 15 | 114% | 114% | Lungs Normal - Day 4; Moderate infection by Day 10; Severe on D15. Improved Survival; Moderate Disease Progression |
| B | NV-387, 400 mg/Kg | 14 | 14 | 100% | 100% | Lungs Normal - Days 4-10; Severe infection by Day 14; Very Good Survival Improvement; Moderate Disease Progression |
| A | NV-387, 200 mg/Kg | 12 | 12 | 71% | 71% | Lungs Normal - Day 4; Severe infection by Day10; Moderate Survival Improvement; Moderate Disease Progression |
| F | Tecovirimat, 100 mg/Kg | 15 | 15 | 114% | 114% | Lungs Normal Day 4; Mild to Moderate Infection Days 8-10; Moderate Survival Improvement; Moderate Disease Progression |
| E | Tecovirimat, 50 mg/Kg | 13 | 13 | 86% | 86% | Lungs Mild Infection by Day 8; Progressively Severe when Moribund (Day 13); Moderate Survival Improvement |
| G | Vehicle, 0 mg/Kg | 7 | 7 | 0% | 0% | Same as Infected Untreated; Rapid Disease Progression; Systemic Infection |
| H | Infected Untreated | 7 | 7 | - | - | Rapid Disease Progression; Systemic Infection |
| I | Naïve | Survived Study | | | | Uninfected, Untreated |

# Influenza: NV-387 Survival Substantially Superior to Oseltamivir, Peramivir, Baloxavir, in Lethal Lung Influenza A/H3N2 Infection, Balbc Mouse Model, Survival Data

Study Id AE1301: Survival Data

| Grp | Test Article, Dose Strength | Survival, Days | | % Survival Increase | | Key Observations |
|---|---|---|---|---|---|---|
| | | M | F | M | F | |
| G1 | NV-387-IV 320 mg/Kg | 16 | 16 | 188% | 188% | Maximal Survival Improvement; Slowed disease progression |
| G2 | NV-387-IV, 160 mg/Kg | 12 | 12 | 88% | 88% | Moderate Survival Improvement; Moderate Disease Progression; Dose Dependent Response |
| G3 | Peramivir IV, 75 mg/Kg | 11 | 11 | 38% | 38% | Modest Survival Improvement; Substantially Less than NV-387 IV or PO |
| G4 | Vehicle-IV, 0 mg/Kg | 8 | 8 | 0% | 0% | IV Vehicle Baseline |
| G5 | NV-387-PO, 426 mg/Kg | 15 | 15 | 88% | 88% | Excellent Oral Efficacy. Bioavailability Estimate ~ 50% Compared to IV for Same Effect. |
| G6 | NV-387-PO, 213 mg/Kg | 13 | 13 | 63% | 63% | Excellent Oral Efficacy. Bioavailability Estimate ~ 60% Compared to NV-387-IV-160 for Same Effect. |
| G7 | Oseltamivir-PO, 15 mg/Kg | 11 | 11 | 38% | 38% | Modest Survival Improvement Similar to Peramivir-IV; Substantially Less than NV-387 IV or PO |
| G8 | Baloxavir, PO | 11 | 11 | 38% | 38% | Modest Survival Improvement Similar to Peramivir-IV, Oseltamivir-PO; Substantially Less than NV-387 IV or PO |
| G9 | Vehicle-PO 0 mg/Kg | 8 | 8 | 0% | 0% | PO Vehicle Baseline |
| G10 | Infected Untreated | 8 | 8 | - | - | Rapid disease progression; Systemic infection |
| G11 | Naïve | Survived Throughout the Study | | | | Uninfected, Untreated |

# NanoViricides Clinical Data and Development Plan for NV-387

| Phase I India Healthy Subjects Clinical Data<br>Study ID: KM-NV-CoV2-001 (India) (ICH GCP) | |
|---|---|
| Dosage - SAD (Ia) | 10, 20, 40 mg/kg NV-387 Oral Syrupp: OR<br>500, 1000, 2000 mg NV-387 Oral Gummy (6 cohorts) |
| Dosage - MAD (Ib) | As above, 2X first day then every 48h for total 6 doses over 9 days. |
| No. of Subjects | 6 per cohort (Total 36 Ph Ia, 36 Ph Ib) |
| Observations | Clinical Exams. Vital Signs (BP, Pulse Rate, resp. Rate, Temp., SpO2). Lab tests (hematology, target organ chemistry, urinalysis, ECG). Patient-Reported Outcomes. |

**Results:** No dropouts. No reported adverse events. No findings in lab tests (hematology, target organ chemistry, urinalysis, ECG). No clinical findings other than minor acute events. No treatments or drug discontinuations.
**All subjects discharged as normal.**

**Conclusions:**
**Both Oral Syrup and Oral Gummy of API NV-387 were found to be safe and well tolerated for all subjects.**
Increased dosing strengths and frequency are suggested by the PI because of the well-tolerated nature of NV-387, so as to maximize antiviral efficacy.

| NV-387 Development Plan | | Timeline |
|---|---|---|
| Phase II (Outside) | Treatment of MPox in DRC under ACOREP. | CTA Nov 2025. |
| FDA - Orphan Drug Designations | NV-387 for MPox<br>NV-387 for Smallpox<br>NV-387 for Measles | Dec 2025<br>/Jan 2026 |
| FDA-PreIND | NV-387 for Smallpox (Animal Rule) | Jan/Feb 2026 |
| FDA-PreIND | NV-387 for MPox | |
| FDA-IND | Phase II - NV-387 for Smallpox (Animal Rule) | |
| FDA-IND | Phase II/III - NV-387 for MPox | |
| Phase II (Outside) | CTA - ARI/SARI Treatment Bucket Adaptive Clinical Trial - focus RSV, Influenza, CoV, hMPV, Expect some Measles cases. | |
| FDA-IND | NV-387 for RSV (Commercial) | |
| Facility-Injectable, Inhalable, and Ophthalmic | Manufacturing of NV-387 Injectable, Inhalable, Ophthalmic, and Nasal Sterile Solution forms to be Setup in Our Shelton CT USA Facility to Support Clinical Trials | |
| CMC-Sterile Formulations | Formulation Devpt and CMC for Drug Products for Injection, Infusion, Inhalation, Ophthalmic, and Nasal | |

# NanoViricides Manufacturing is Fully US Based

## NanoViricides GMP Manufacturing Facility

- Multi-Purpose "Pilot-Lab" Type Facility with Movable Reactor Equipment on Chassis.
- Section I with Air-locks, Supports Raw Materials Quarantine, Release, and Pre-Dispensing
- Section II Comprises Injectables Style Air-lock Entry System, Pass-boxes, 2 Non-Condensation Cold Rooms for Intermediates Storage, 1 Reactor Assembly Room with Clean-Reactor-In PassageBox, 1 Walk-in Laminar Cabinet Room (Class 100,000, 10,000 and Class 1000, capable of Class 100), 1 Main Multi-Purpose Processing Room including a Large Walk-In Fume Hood with 100% Exhaust, a Large Walk-In Laminar Hood in Class 100,000, 10,000, and 1,000 - can go to 100, Each of these Hoods can hold up to 4x100L Reactors on Chassis ata time. Also includes Two WFI-Quality Sartorius Metered Water Stations.
- Section III Comprises a Multi-Purpose Oral and Dermal Drug Product Formulation, Fill, Finish, Seal, Label, and Packaging FAcility with Airlocks and full height Equipment PassageBox, under Class 100,000.
- The bfacility is under AirPressure (Diffl), Temperature, and Humidity Monitoring and Recording BAS System.
- Personnel Flow and Material Flow Implemented.

## NV-387 Manufacturing

- GMP Drug Substance Manufacture Completed in Scales up to 5~10 kg Batch. > 3 Batches.
- GMP Drug Product Manufacturing Completed in Scales up to ~ 2 kg Batch. > 3 Batches.
- NV-387-OG Blisterpacks of 6 gummies/pk in strengths of 500, 1000 and 1500 mg API.
- Custom Equipment for Blisterforming, and Custom Equipment for Filling and Sealing were Designed, Fabricated and Manufactured in the USA by Applied Engineering, Garfield, NJ. Larger Scale, and Automated Equipment Can also be designed and fabricated by the same company.
- API NV-387 Manufacture Requires Only 5 Chemical Reaction Steps, No HPAPI or Extreme Conditions.
- All Raw Materials, Solvents, etc. Are Available in the USA.
- COGS are small. Currently ~$5,000 per kg (NV-387 API basis in drug product) excluding operations labor, facility and indirect costs. Can drive down on scale-up.

# Intellectual Property - NanoViricides Has Complete Freedom to Operate

- All of the intellectual property has been developed internally by scientists at AllExcel, Inc., Team led by Dr. Anil R. Diwan
- TheraCour Pharma, Inc., founded and led by Dr. Diwan, contractually holds said nanomedicines IP of AllExcel, Inc.
- NanoViricides has a Perpetual, Exclusive, Sub-licensable License from TheraCour for All Products and Derivatives Discussed

- International Patents (PCT) have been filed and issued since 2006 and 2007 on the basic compositions of matter and use for encapsulation, anticancer, antiviral, and other applications.
- Two new PCT applications have been filed for the new innovations, and COVID-related drug applications in ca. 2020 and 2021.
- A new PCT application is in preparation.
- Additional patents will be filed as the developments progress further.
- Patents cover Compositions of Matter, Methods of Preparation, Synthesis, Manufacture, Isolation, Purification, Formulation, and Uses of Articles of Manufacture.

NanoViricides Incorporated

"Nanotechnology-Enabled Targeted Viricides"
A Publicly Traded Company, "NNVC"
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Thank you for your attention and guidance.

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Together We Can Destroy Viruses