Clinical Experience

1. Overview of Preclinical and Clinical Evaluation

Experimental and clinical testing of **Viroplazin** has been ongoing for **over six years** across multiple animal species, including companion animals and livestock. The safety and efficacy profile has been extensively investigated through a combination of:

- **Preclinical toxicology studies**
- **Controlled efficacy trials**
- **Field-based clinical case reports**

These investigations were conducted in collaboration with an **independent research group** at the **University of Veterinary Medicine**. Full **study documentation, protocols, and statistical evaluations** are available for regulatory review.

2. Safety and Toxicity Assessment

2.1. Laboratory Toxicology Studies

Viroplazin has undergone **acute and chronic toxicity testing** in:

- **Rodents** (mice)
- **Healthy dogs**
- **Healthy cats**

Key findings:

- Even at doses **1,000 times higher than the maximum therapeutic dose**, **no morbidity or mortality** was observed in mice.
  Note: This extreme dosing study was performed out of scientific curiosity and significantly exceeds the requirements for regulatory acute toxicity testing.
- Across all species tested, **orders-of-magnitude overdosing** relative to clinically effective doses produced **no detectable adverse effects**.

These findings establish a **wide therapeutic index** and confirm the **excellent systemic tolerance** of Viroplazin.

3. Controlled Efficacy Studies

3.1. Study Design

Controlled clinical trials were performed on three high-mortality viral diseases in companion animals:

- **Canine parvoviral enteritis**
- **Feline panleukopenia**
- **Feline herpesvirus rhinotracheitis**

3.2. Methodology

- Diagnosis confirmed by **real-time PCR (rt-PCR)** for the respective pathogens.
- Infected animals were **randomized into two groups**:
    1. **Standard symptomatic treatment only**
    2. **Standard treatment + Viroplazin**

3.3. Results

- **Survival rate: 100% survival** in Viroplazin-treated groups vs. significantly lower survival in controls.
- **Time to clinical recovery:** Markedly shorter in Viroplazin-treated animals, supported by **statistically significant differences**.
- **Viral shedding:** In Viroplazin-treated animals, **post-recovery viral shedding ceased 80% of tested cats with Calici viral infection while all untreated cats continued shading virus 3 weeks after treatment start.**
- Whereas untreated and treated animals continued to shed herpes virus but the Viroplazin treated group was Clinically symptoms fee unlike the untreated group.

Epidemiological relevance: Reduced shedding significantly lowers environmental contamination and transmission risk in Canine Parvo, Feline Panleukopenia and Feline Calici virus infections.

4. Real-World Clinical Evidence

Beyond controlled studies, extensive **field experience** demonstrates Viroplazin's broad-spectrum antiviral efficacy and safety. Documented positive clinical outcomes have been observed across a wide range of species and viral pathogens and Mycoplasma and some bacterial infection:

4.1. Dogs

- Parvoviral enteritis
- Distemper (*Canine morbillivirus*, closely related to human measles virus)
- Parainfluenza infection
- Canine herpesvirus infection
- Hemotropic mycoplasma-associated infections

4.2. Cats

- Feline parvoviral panleukopenia
- Feline herpesvirus rhinotracheitis
- Feline calicivirus-associated rhinotracheitis

4.3. Horses

- **Rhodococcus equi** septicemia (2 month old foal) Viroplazin experimental injectable Treatment resulted in full recovery.

4.4. Rabbits

- Pasteurellosis-associated pneumonia

5 treatment and 10 control Rabit was experimentally infected with Acute septicemic form/ virulent strains of Pasteurella multocida. The Viroplazin treatment group received 15mg/kg dose starting 2 days before the infection and was treated with this dose for 7 days. All controlled rabbit died while all Viroplazin treated rabit lived beyond 30 days when the monitoring ended.

4.5 Pig

. **Swine Influenza (SIV)**

. **Porcine Circovirus type 2 (PCV2)**

. **Porcine Reproductive and Respiratory Syndrome Virus (PRRSV)**

4.6 Bovine

- Experimental treatment with injectable Viroplazin/antibiotic in five 1-10 month old calfs with mixed viral and bacterial infection of Parainfluenza-3 and Pasteurella multocida .

All calf was presented with the symptoms of ; fever /40.5-40.8 C/ , inappetence , malaise , serous and mucopurulent discharge , dyspnoea , auscultation of lung ;catharsis , moist crackles

Treatment; Marbofloxacin injection and Viroplazin injection 5mg/kg dose 2 times per day.

Treatment result; All calf survived and recovery was remarkably fast. On the second day of the treatment all calf started to eat normal and 3 day of the treatment all considered to be cured the therapy as not continued beyond 3 days as it was unnecessary .

- A 3 weeks old calf in a small farm had high fever 42 C , recumbent , not eating or drinking , mucopurulent nasal discharge ,coughing , dyspnoea , open mouth breathing . Had injectable antibiotic treatment for 3 days but the symptoms just got worse; Rapid antigen test detected IBR.

Viroplazin injection treatment was initiated at the 3 day as the calf was to die with out effective treatment. Dose was 5mg/kg twice /day . Full recovery after 3 days of treatment only with Viroplazin injections .

5. Ongoing and Future InvestigationsCurrent clinical trials are underway to evaluate Viroplazin's efficacy in livestock viral diseases, including:

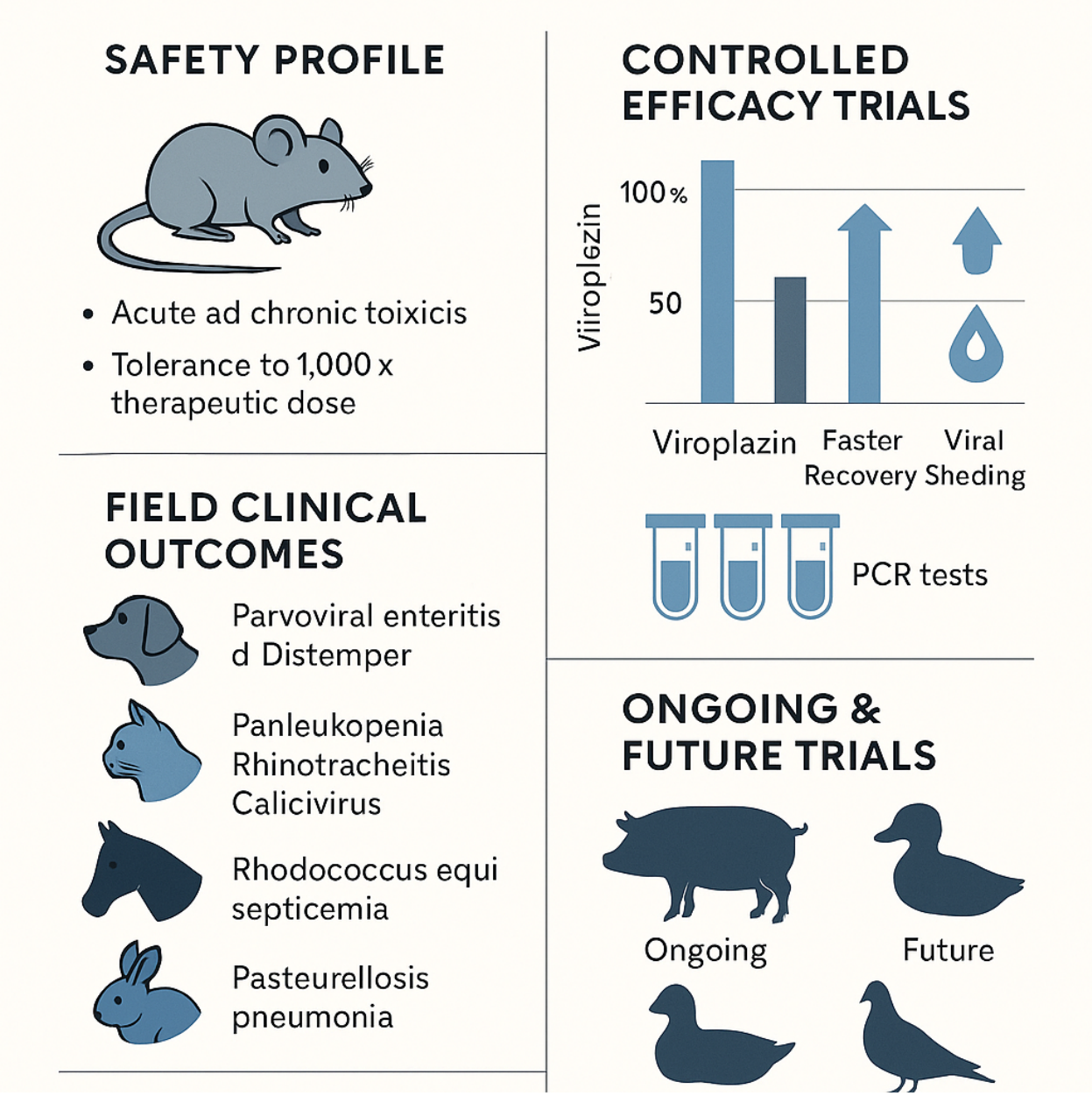
- **Pigs** – covering PRRSV, PCV2, PEDv, and TGE
- **Ducks** – avian influenza and other high-impact pathogens

Planned future studies will expand into:

- **Calves** – neonatal diarrhea-associated viral syndromes
- **Pigeons** – paramyxovirus and other respiratory pathogens

6. Summary of Findings

- **Safety:** Demonstrated a **remarkably high therapeutic index** across species.
- **Efficacy:** Controlled studies show **dramatically improved survival**, **faster recovery**, and **reduced viral shedding**.



- **Broad-spectrum activity:** Effective across **multiple viruses, species, and clinical contexts**.
- **Clinical adoption:** Supported by **hundreds of documented field cases** over six years.

Viroplazin's extensive clinical record positions it as a **first-in-class antiviral therapy** with the potential to significantly reduce **morbidity, mortality, and viral transmission** in both companion animals and livestock.

VII. Summary

Viroplazin has demonstrated **substantial therapeutic benefits** across a wide spectrum of **viral infections in multiple animal species**, supported by six years of experimental research, controlled clinical trials, and extensive field experience. These findings establish Viroplazin as a **first-in-class, host-directed antiviral therapy** with the potential to address major unmet needs in veterinary and, eventually, human medicine.

Across all studies to date, **side effects have been minimal to absent**, even at doses significantly exceeding the therapeutic range. This exceptional **safety profile**, combined with its unique **broad-spectrum mechanism of action**, positions Viroplazin as a promising tool for managing viral diseases that currently lack effective treatment options.

Our immediate focus is on **veterinary applications**, supported by ongoing **experimental, toxicological, and clinical trials** designed to meet rigorous regulatory standards for animal health products. At the same time, the **universality of Viroplazin's antiviral mechanism** provides cautious but compelling grounds for exploring **future human applications**.

We fully recognize that the transition to human therapeutics will require a **thorough, highly structured, and multi-phase regulatory approval process**, involving extensive safety, pharmacokinetic, and efficacy studies. To achieve this, **collaboration and support from scientific institutions, regulatory authorities, and funding partners** will be critical.

Viroplazin represents a **transformative opportunity**: an innovative, well-tolerated, and **mechanistically distinct antiviral therapy** with the potential to redefine treatment strategies for viral diseases across species.

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