

Message from the President



Although we know how potent our immunotherapies are (and we hear about successful treatment outcomes every day), even we are sometimes surprised at the results.

In the case of Reba, a Texas mare with melanoma in the eye socket, we were uncertain how or if Immunocidin Equine would work. Luckily, Reba's veterinarian was willing to take an experimental approach and it paid off. Reba's melanoma is gone, and her owner is both thrilled and grateful.

Immunocidin Equine is approved for the treatment of another type of equine skin tumor—sarcoids—but appears to have broader applicability.

Our products are approved by regulators in various countries based on data demonstrating their safety and efficacy

in the target disease/species. Veterinarians are permitted to use discretion and provide experimental treatments if they—and the animal owners—are comfortable that there is minimal risk.

NovaVive is always willing to respond to veterinarian questions about individual cases and discuss treatment options.

When experimental uses are pursued, it can generate helpful data for both the veterinarian and our company.

We are pleased to have been able to assist Reba and her owner.

Successful melanoma treatment with Immunocidin® Equine



Reba is a 25-year-old solid sorrel bred APHA mare in Texas, USA diagnosed with malignant ocular melanoma (confirmed by biopsy) in May, 2022.

The biopsy aggravated the tumor and, since Reba was pregnant (in her first trimester), it was determined the safest approach was enucleation (removal of the eye). The surgery took place in

June, 2022. Unfortunately, the melanoma recurred in June of this year.

Reba's veterinarian administered 1.5ml of Immunocidin® Equine by IV injection and the rest of a vial (3.5ml) by IT injection. The site became itchy, so banamine was administered.

A single intratumoral dose (5ml) was administered two weeks later, with two additional bi-weekly treatments following. The banamine became unnecessary after a few treatments.

Treatment ended after the 4th treatment with Immunocidin Equine, as the tumor was no longer visible.

Reba's owner, Cassie Moore, is thrilled with the results. "I am ecstatic with the outcome in Reba. Even if it only gives me a year or 6 months more quality time with my girl, it was worth it.



"I cannot say thank you enough to NovaVive for giving the go ahead and trying this product on my girl. I recommend it to anyone I see battling sarcoids or melanoma."

Immunocidin Equine is regulator-approved in the USA and Canada for the treatment of equine sarcoid tumors. It was used experimentally to treat Reba's melanoma, another type of skin cancer.

Antibiotic resistance and an alternative that can help

Antibiotic resistance is described by the World Health Organization (WHO) as “one of the biggest threats to global health, food security, and development today”.

Antibiotics are medicines used to prevent and treat bacterial infections. The WHO states, “antibiotic resistance occurs when bacteria change in response to the use of these medicines.”

When commonly used antibiotics no longer work to combat bacterial infections due to resistance, it becomes a serious issue. In humans, it means longer hospital stays, higher medical costs, and an increased risk of death.

Although antibiotic resistance occurs naturally, the misuse (including overuse) of antibiotics in humans and animals is accelerating the process.

At NovaVive, we offer two antibiotic alternative immunotherapy products:



Amplimune, for the treatment of scours (diarrhea) in neonatal calves caused by the bacterium *E. coli* K99; and Settle, for the treatment of equine endometritis caused by the bacterium *Streptococcus zooepidemicus*.



Both products stimulate the animal’s natural immune system to fight against the bacterial invader. Often a single dose is all that is needed to kick the immune system into gear.

NovaVive is encouraged by the US Food & Drug Administration (FDA)’s initiative to change all remaining over-the-counter bovine antibiotics to prescription-only status in June of this year. This fits with the WHO’s recommendations to prevent and control the spread of resistance in the agricultural sector:

1. Only give antibiotics to animals under veterinary supervision.
2. Do not use antibiotics for growth promotion or to prevent diseases in

healthy animals.

3. Vaccinate animals to reduce the need for antibiotics and use alternatives to antibiotics when available.
4. Promote and apply good practices at all steps of production and processing of foods from animal and plant sources.
5. Improve biosecurity on farms and prevent infections through improved hygiene and animal welfare.



We support all efforts to reduce the antibiotic footprint on farms and in other agricultural settings—for the benefit of animals and humans.

Visit NovaVive.ca/equine-research or [/bovine-research](http://NovaVive.ca/bovine-research) for more information and data supporting these products.

Equimune[®] continues to produce healthy foals

Hilldale Farm (equine breeder) in Brashear, TX continues to produce healthy foals with the help of Equimune immunotherapy.

In 2021, the farm was dealing with a chronic *Streptococcus zooepidemicus* infection in the foals that even a veterinarian-prescribed dual antibiotic regimen couldn’t resolve. They started the foals on Equimune at the end of that regimen and saw results.

They decided to use Equimune proactively in their foals last year. Despite the stress of extreme summer heat, none of the 27 foals became sick and the owners were able to take their first vacation in years. Plus, they saved close to \$40,000 in treatments.

Once again this year, their 44 foals are healthy and happy with no signs of infection.



Equimune is administered by IV injection every two weeks for 12 weeks. Half of an adult dose is used for each treatment.

“We tell all our customers about Equimune and what good luck we’ve had with it,” says farm owner Tammye Hutton. “It’s just really a great product!”

